

*Apple v. Samsung* (En Banc October 7, 2016)  
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The following are abstracts prepared by Donald Chisum for entry in the next editions of both Chisum, PATENT LAW DIGEST, an annual one-volume publication, and the SUPREME COURT GUIDE, which is Volumes 18-26 of CHISUM ON PATENTS.

**Section 1565.50** is a subcategory entitled “Case Examples: Jury Verdict of Nonobviousness Upheld”, which is in Section 1000 (Patentability), 1500 (Obviousness), 1560 (Jury Trial), 1565 (Examples).

**Section 5229.33** is a subcategory entitled “Telecommunications--Networks--Computer Software--Computer-Controlled Machines and Processes”), which is in Section 5000 (Infringement), 5200 (Claim Interpretation), 5220 (Interpretation Aids), 5229 (Case Examples) , 5229.30 (Electronic and Electrical Structures and Processes)

In addition to these two plenary abstracts, there are many other specific abstract inserts for the case in other subsections. That is shown below by the entries prepared for the “Table of Cases” and for the “Chronological Case Table.” The specific inserts are not included here.

No citation in the Federal Reporter (3d) is yet available. Therefore, temporarily, a Lexis citation is used. That is replaced once the Federal Reporter citation is available.

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1565.50

*Apple Inc. v. Samsung Electronics Co., Ltd.*, 2016 U.S. App. LEXIS 18225 (Fed. Cir. 2016) (en banc)

(1) SMARTPHONES. In a suit and countersuit by vendors of “smartphones,” Apple Inc. and Samsung Electronics Co., a district court, after a 13 day jury trial that included testimony by experts for both Apple and Samsung, entered judgments on validity and infringement of five Apple patents and two Samsung patents. Samsung appealed; Apple cross-appealed.

(a) EN BANC REVIEW; OVERTURNING PANEL DECISION WITHOUT FURTHER BRIEFING OR ARGUMENT. In this case, the Federal Circuit took an unusual en banc action, vacating and replacing without further briefing or argument a portion of a three judge panel decision that overturned a district court judgment that one Apple patent was infringed and two others invalid for obviousness. (FIRST EN BANC OBVIOUSNESS CASE IN 26 YEARS; *DILLON* (1990): Dissenting, Judge Dyk noted that this was the first en banc decision on obviousness in 26 years, the last being *In re Dillon*, 919 F.2d 688 (Fed. Cir. 1990)).

(i) DISTRICT COURT. The district court, per Judge Lucy H. Koh, granted summary judgment that Apple’s ‘172 patent was infringed. Judge Koh conducted a 13-day jury trial. In its verdict, the jury found (A) the ‘172 patent not invalid (\$

17,943,740 damages), (B) Apple's '721 patent infringed and not invalid (\$ 2,990,625 damages), (C) Apple's '647 patent infringed (\$98,690,625 damages), (D) Apple's '414 and '659 patents not infringed, (E) Samsung's '449 patent infringed (with a damage award of \$158,400), and (F) Samsung's '239 patent not infringed. The district court denied both parties' motions for judgment as a matter of law (JMOL) and entered judgment awarding Apple \$ 119,625,000 damages and an ongoing royalty on the '647, '721, and '172 patents.

(ii) APPEALS. Both parties appealed to the Federal Circuit.

(A) TWO PRIOR APPEALS; *APPLE* (2012), *APPLE* (2015). There had been two prior appeals in the case: *Apple Inc. v. Samsung Elecs. Co.*, 695 F.3d 1370 (Fed. Cir. 2012) (involving grant of a preliminary injunction), and *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 638 (Fed. Cir. 2015) (involving denial of a permanent injunction).

(B) NOTE: PENDING SUPREME COURT CASE. This case was distinct from yet another Apple/Samsung case, which involved design patent infringement damages and was being considered by the Supreme Court. See *Apple Inc. v. Samsung Electronics Co., Ltd.*, 786 F.3d 983 (Fed. Cir. 2015), *cert. granted*, 136 S. Ct. 1453 (2016).

(iii) PANEL: THREE APPLE PATENTS NOT INFRINGED OR INVALID. The panel, in an opinion by Judge Dyk, joined by Judges Prost and Reyna, reversed in part, holding that the district court should have granted JMOL that Apple's '647 patent was not infringed and that Apple's '721 and '172 patents were invalid for obviousness but upholding the district court's judgments on the other four patents ('414, '959, '449, '239). *Apple Inc. v. Samsung Electronics Co., Ltd.*, 816 F.3d 788 (Fed. Cir. 2015), *vacated-in-part & reinstated in part*, --- F.3d ---- (Fed. Cir. Oct. 7, 2016).

(iv) EN BANC. The Federal Circuit granted Apple's petition for en banc review. It reversed the panel decision against Apple's 647, '721 and '172 patents. It reinstated the panel decision regarding the "'414, '959, '449, '239 patents.

(A) The majority opinion was by Judge Moore, joined by six other judges (Newman, Lourie, O'Malley, Wallach, Chen and Stoll). Judge Stoll concurred in the result "without opinion."

(B) The three panel members, Judges Prost, Dyk and Reyna, each filed dissenting opinions.

(v) **REASONS FOR "SUMMARY" EN BANC REVERSAL OF PANEL.** In her majority opinion, Judge Moore listed reasons why the en banc review and reversal of the panel was proper without additional briefing of argument.

(A) COMMENT: TWO CATEGORIES; "APPELLATE FUNCTION."

The reasons fell into two categories, both concerning the "appellate function," which, Judge Moore affirmed, was limited to deciding issues the parties raised on the basis of the record and with "appropriate deference" to fact findings. COMMENT: SPANKING THE PANEL. The

majority agreed with Apple's arguments in its petition for en banc

rehearing that the panel had exceeded its proper “appellate function” by relying on “extra-record evidence” to modify “an agreed to and unappealed claim construction” to reverse the ‘647 patent infringement judgment and by reversing, in an “unprecedented” manner, “every finding” by the jury on obviousness.

(B) CLAIM CONSTRUCTION: EXTRA-RECORD EXTRINSIC EVIDENCE TO CONSTRUE CLAIM TERM? The first category pertained to claim construction. According to Judge Moore for the majority, there was no need for briefing or argument on “whether an appellate panel can look to extra-record extrinsic evidence to construe a patent claim term.” See § SCG-SCG-5229.33.

(I) *TEVA* (2015); FACTUAL COMPONENTS; BACKGROUND SCIENCE; MEANING OF TERM IN ART. In *Teva Pharms., Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015), the Supreme Court confirmed that the factual components of claim construction included “background science” and “the meaning of a term in the relevant art during the relevant time period.” See *Teva Pharms., Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342 (Fed. Cir. 2015) (quoting *Teva*).

(II) FACT FINDINGS: PROVINCE OF DISTRICT COURT. After the Court’s *Teva*, “such fact findings” were “indisputably the province of the district court.”

(III) EXTRA-RECORD EVIDENCE; FINDINGS ON TERM’S PLAIN MEANING (OR HOW AN ACCUSED PRODUCT OPERATES). Thus, Judge Moore emphasized, no “additional briefing or argument” was needed to conclude that a Federal Circuit panel could “rely on extra-record extrinsic evidence in the first instance.” Nor could it “make factual findings about what such extrinsic evidence suggests about the plain meaning of a claim term in the art at the relevant time.” And it could not use “extra record evidence”

(C) JURY FINDINGS. The second category pertained to jury fact findings, in particular on obviousness. According to Judge Moore for the majority, there was no need for briefing or argument on whether an appellate court could review unappealed fact findings or review appealed jury fact findings other than for support by substantial evidence.

(I) REVERSING “NEARLY A DOZEN JURY FACT FINDINGS.” The panel had, “across three patents,” reversed “nearly a dozen jury fact findings, including infringement, motivation to combine, the teachings of prior art references, commercial success, industry praise, copying, and long-felt need.”

(II) FINDINGS NOT APPEALED; SUBSTANTIAL EVIDENCE NOT MENTIONED. Some of the finding were not appealed. The

panel reversed some without “mentioning the applicable substantial evidence standard of review.”

(vi) **“BIG QUESTIONS” ABOUT OBVIOUSNESS: NOT ADDRESSED; APPLY EXISTING LAW TO FACTS; FIDELITY TO *TEVA*.** The majority noted that the dissents, particularly that of Judge Dyk, raised “big questions” about obviousness. Neither Apple nor Samsung invited the Federal Circuit to change existing law. The majority denied that it was addressing any “important legal questions about the inner workings of the law of obviousness.” It emphasized that it had granted en banc review only to affirm its understanding of appellate function and maintain “fidelity to the Supreme Court’s *Teva* decision.” Thus, in ruling on the three patents, it “applied existing obviousness law to the facts.”

(vii) **REYNA, DISSENTING: IMPROPER EN BANC REVIEW; UNIFORMITY; EXCEPTIONAL IMPORTANCE; AMICUS BRIEFS.**

Dissenting, Judge Reyna argued that the Federal Circuit erred by granting en banc review and especially so without giving notice of issues and an opportunity for the submission of amicus briefs as had been its usual practice.

(A) En banc review was properly granted only to secure uniformity in the court’s decisions or to answer a question of exceptional importance. This en banc decision did not purport to do either. Instead, the majority disagreed with a panel on “extremely narrow questions”: (1) “the claim construction of a single patent,” (2) “whether substantial evidence exists to support certain jury factual findings,” and (3) “the ultimate determination of obviousness for two patents.”

(B) The majority review was “simply a do over” because “it claims to apply existing law to the facts of the case.”

(C) WHIM. Lurking in the majority’s action was a “potential for damage” to “the system of justice”: acting selectively to alter the result in a particular case without meeting the criteria of uniformity and importance might “create jurisprudence based on arbitrary whim and fitfulness.”

(D) TWO ISSUES. Judge Reyna suggested that two issues of importance could have been (but were not) “explicitly addressed” by the en banc court.

(I) SUBSTANTIAL EVIDENCE. One issue was suggested because the majority’s application of the substantial evidence standard for appellate review of jury fact findings seemed to imply that “any” evidence sufficed and that an appellate court could not “actually examine the evidence presented to determine whether it actually supports the findings it is alleged to support.” Thus, the court, in banc, could have explicitly provided “guidance on what the substantial evidence standard means and how it is applied when we review the factual findings that underlie jury verdicts.”

(II) OBVIOUSNESS; BURDEN SHIFTING; WEIGHT WHEN

“STRONG EVIDENCE OF OBVIOUSNESS EXISTS.” Another issue was suggested by dissenting Judge Dyk’s “forceful argument”, citing Supreme Court precedent, that “secondary considerations of non-obviousness carry little weight where strong evidence of obviousness exists.” A Federal Circuit panel decision, *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063 (Fed. Cir. 2012), had rejected a “burden-shifting framework in district court proceedings.” En banc review would have been proper to “candidly address” the disagreement over “the role objective indicia play in the court’s analysis of the ultimate determination of obviousness.” The court could have explicitly addressed (1) “whether an obviousness analysis involving secondary considerations (or objective indicia of non-obviousness) is a one- or two-step process,” and (2) how much weight to accord secondary considerations in the obviousness analysis.”

(D) Judge Reyna concluded that the two issues were “important” and should have been (but were not) “addressed in the front room of the courthouse, with all stakeholders at the litigation table.”

(b) **‘721 PATENT: SLIDE-TO-UNLOCK MECHANISM FOR PORTABLE DEVICE TOUCHSCREEN.** The ‘721 patent concerned a slide-to-unlock mechanism for a portable electronic device touch-sensitive display. **U.S. Pat. No. 8,046,721.** HELD: substantial evidence supported the jury’s implicit fact findings on motivation to combine and objective indicia, and those findings supported a conclusion that Samsung failed to establish, by clear and convincing evidence, that the asserted claim would have been obvious.

(i) SOLVING PROBLEM OF INADVERTENT ACTIVATION; UNINTENTIONAL CONTACT WITH TOUCHSCREEN. The patent described a problem with portable device touch screens: “unintentional activation or deactivation of functions due to unintentional contact with the touch screen.”

(A) “POCKET DIALING.” Such “unintentional activation” was “commonly referred to as ‘pocket dialing.’” The problem arose when a user placed a device in a pocket and unintentional contact with the touch screen caused unintended activation (or deactivation) of a function. COMMENT: NO DISCUSSION OF “POCKET DIALING” IN PATENT. The majority opinion cites and quotes Apple testimony, including that by the inventor, describing efforts to solve the “pocket dialing” problem. Such dialing was also commonly referred to as “**butt calls.**” But neither the patent’s specification nor its claims referred to “pocket dialing.” This became significant in assessing a prior art reference (Plaisant) that disclosed a slide-to-unlock feature on a touchscreen on a wall-mounted device. As stressed by Judge Dyk in dissent, the reference acknowledged an inadvertent activation problem, but, of course, pocket dialing was not

problem for a device that would not be put in a pocket.

(B) The patent noted the importance of making activation (“unlocking”) “user-friendly” and “efficient.”

(I) One of the named inventors testified that the making the user interface easy (“obvious”) was a central design concern.

(II) Apple’s expert testified that “there was a tension between preventing pocket dialing and ease of use.” Activation had to be easy but not too easy.

(C) CLAIM: “PORTABLE ELECTRONIC DEVICE”; FOUR COMPONENTS, INSTRUCTIONS FOR FOUR FUNCTIONS. The only asserted claim was claim 8, which depended on claim 7 (and, therefore, incorporated its limitations). Claim 8 was to a “portable electronic device” with four components: a “touch-sensitive display,” “memory, “one or more processors” and “one or more modules.” The module(s) was configured for execution by the processor(s). The module(s) included instructions to perform four functions.

(I) DETECT CONTACT AT “UNLOCK IMAGE”. The first function was to “detect a contact” with the display at a first location. That location corresponded to “an unlock image.”

NOTE: the following function defined the “unlock image” as an “object” with which a user interacts

(II) MOVE UNLOCK IMAGE IN ACCORD WITH CONTACT MOVEMENT. The second function was to “continuously” move “the unlock image on the touch-sensitive display in accordance with the movement of the detected contact while continuous contact with the touch-sensitive display is maintained.” The “unlock image” was “a graphical, interactive user-interface object with which a user interacts in order to unlock the device.”

(III) UNLOCK DEVICE IF IMAGE MOVED TO UNLOCK REGION. The third function was to unlock the device if the image is moved from the first location to a “predefined unlock region” on the display.

(IV) VISUAL CUES ON DIRECTION OF MOVEMENT. The fourth function, which claim 8 added to claim 7, was to “display visual cues” on the movement direction of the image “required to unlock the device.”

(ii) At trial, the jury found that Samsung’s device infringed the claim, that Samsung failed to prove the claim’s invalidity by clear and convincing evidence, and the infringement was willful. Samsung moved for judgment as a matter of law (JMOL) on validity and willfulness. The district denied the motion on validity but granted it on willfulness. The district court did not err on validity but did error on willfulness. See § SCG-6313.40.

(iii) OBVIOUSNESS ARGUMENT: COMBINATION OF TWO PRIOR ART

REFERENCES. Samsung's obviousness argument was based on a combination of two references

(A) NEONODE: MOBILE DEVICE, TOUCHSCREEN; UNLOCKING: POWER BUTTON, "SWEEP RIGHT." The Neocode reference disclosed a mobile device with a touchscreen. A user unlocked the device by pressing the power button, which caused an instruction to appear: "Right sweep to unlock." That sweep unlocked the device.

(B) PLAISANT: WALL-MOUNTED TOUCHSCREEN FOR APPLIANCE. Plaisant was a video and two-page paper describing a wall-mounted touchscreen controller for an appliance, such as a security system or a climate control system.

(I) EXPERIMENT: PREFERENCE AMONG SIX ALTERNATIVE "TOGGLE" UNLOCKING CONTROLS. The paper described an experiment to determine which among six alternative "toggle" unlocking controls 15 undergraduate students preferred.

(II) "SLIDER TOGGLE"; POINTER. One was a "slider toggle," which entailed grabbing a pointer on one side and sliding it to the other to unlock.

(III) NOT PREFERRED: 5 OF 6. The slider toggle with the pointer was fifth least preferred among the six alternatives.

(IV) MORE COMPLEX. The paper noted that sliders were "more complex than simply touching."

(C) NO DISPUTE: ANALOGOUS ARTS, DISCLOSE ALL CLAIM ELEMENTS. The patent owner (Apple) did not dispute that the two references were "within analogous arts" and, together, disclosed all the asserted claim's elements. (The majority stressed that "concluding that the references are within the scope and content of the prior art to be considered for obviousness" did *not* "end the inquiry.")

(iv) MOTIVATION TO COMBINE. Apple and Samsung disputed: would a skilled artisan would have been motivated to combine the references?

(A) CASE LAW: JURY'S IMPLICIT FINDING OF FACT; SUBSTANTIAL EVIDENCE? Case law confirmed that motivation to combine was a question of fact and that, with a "black box" jury verdict (that is, a general verdict on invalidity or obviousness with no interrogatories), it must be assumed that a jury implicitly found facts supporting a verdict-winner (here, the patent owner, Apple) and the verdict must be sustained if it was supported by substantial evidence. See § SCG-1565.40.

(B) DISTRICT COURT: TWO DISCRETE BASES FOR DENYING JMOL; EXPERT'S TESTIMONY. In denying JMOL, the district court relied on "two discrete rationales," each based on the testimony of the patent owner's expert (Cockburn).

(I) NO MOTIVATION TO COMBINE ELEMENTS FROM HOME APPLIANCE TO SOLVE “POCKET DIALING” PROBLEM SPECIFIC TO SMARTPHONE. First, it reasoned that a reasonable jury could infer from the expert’s testimony that an ordinary artisan would not have been motivated to combine an element from a home appliance touchscreen with a smartphone to solve the “pocket dialing” problem specific to the latter.

(II) PLAISANT “TEACHING AWAY” FROM SLIDER TOGGLE. Second, it reasoned that the expert had explained that Plaisant taught away from using a slider toggle by indicating that other alternatives were preferred.

(C) The Federal Circuit majority agreed with the district court’s first rationale and did not address the second (teaching away).

(I) PLAISANT ALTERNATIVES: RELEVANT EVEN IF NOT “TEACHING AWAY.” Even if Plaisant did not teach away from a slider toggle, its statements on user preference for alternatives were “relevant” to whether a skilled artisan would have been motivated to combine Plaisant’s slider toggle with the Neonode mobile phone.

(II) CONTRARY TESTIMONY ON MOTIVATION SAMSUNG’S EXPERT; SKILLED ARTISAN “HIGHLY INTERESTED”; TWO REFERENCES DEALING WITH TOUCHSCREEN INTERFACES. Samsung’s expert testified, contrary to Apples’ expert, that a skilled artisan would have been “highly interested” in Plaisant as well as Neonode because both references dealt with touchscreen user interfaces, that it would have been “natural” to take ideas from Plaisant such as the slider and put them on the Neonode device, and that such was “a very routine thing to think about in terms of interaction design.”

(III) PLAISANT: STATEMENT THAT SLIDING “LESS LIKELY TO BE DONE INADVERTENTLY.” Samsung also pointed to the statement in Plaisant that sliding was “less likely to be done inadvertently.”

(IV) LIMITED REVIEW. However, case law restricted a court’s review of the jury’s verdict to whether the evidence afforded only one reasonable conclusion that was contrary to the jury. It was not the court’s job to determine “whether Samsung’s losing position was also supported by substantial evidence or to weigh the relative strength of Samsung’s evidence against Apple’s evidence.”

(V) Here, the references themselves were before the jury as was the testimony of Apple’s expert. That constituted substantial evidence supporting an implied finding that a skilled artisan would not have been motivated to combine an element from an appliance touch



screen (Plaisant) with a mobile device, particularly when Apple's invention addressed a "pocket dialing" problem specific to mobile devices.

**(v) SECONDARY CONSIDERATIONS; IMPLIED FINDINGS;**

**ESTABLISHED BY "PREPONDERANCE OF EVIDENCE."** At trial, Apple submitted evidence on industry praise, copying, commercial success and long-felt need. The jury's general verdict for Apple meant that the jury made implied findings that "the evidence was sufficient to establish each by a preponderance of the evidence." The majority held that each finding was supported by substantial evidence.

**(A) INDUSTRY PRAISE; INTERNAL DOCUMENTS; CHEERS AT JOBS UNVEILING VIDEO.** Numerous internal documents of the infringer Samsung praised the patent owner's "slide-to-unlock" feature and suggested that the infringer modify its phones to incorporate the feature. The documents, from the patent owner's "top competitor," acknowledged "the merits of the patented advance over the then state of the art and can be used to establish industry praise." Also, Apple presented to the jury a video of Apple chairman Steve Jobs unveiling the slide-to-unlock feature at an event with the press present. The audience burst into cheers. The praise evidence "specifically related to features of the claimed invention, thereby linking that industry praise with the patented invention."

**(B) COPYING.** Apple presented to the jury Samsung internal documents, which stated that the feature, which was embodied in Apple's iPhone, was "better than the various Samsung alternatives" and concluded that the "direction for improvement" was for Samsung "modify its unlocking mechanism to be like the iPhone." That evidence showed "copying by Samsung" and "support[ed] the jury's verdict that the claimed invention would not have been obvious."

**(C) COMMERCIAL SUCCESS; NEXUS TO IPHONE SUCCESS.** The iPhone was indisputably successful. The "overall record" contained "substantial evidence of a nexus between the slide to unlock feature and the iPhone's commercial success." See § SCG-1533.

**(I) SURVEY: CUSTOMER PREFERENCE FOR PATENTED FEATURE; NEXUS (CONTRARY TO DISSENTS).** Apple presented survey evidence that customers preferred devices with the feature, being less likely to purchase, and willing to pay less for, a device without the feature. The evidence permitted "the jury to conclude that this feature was a key driver in the ultimate commercial success of the products." Samsung argued that the surveys tested customer preference for tablet computer with a 7 inch screen, not a phone. However, the patent claim was to a "hand-held electronic device." The "distinction" did not have

“anything to do with the slide to unlock feature.” The dissenting opinions suggested the survey evidence only established a customer preference for devices with a slide-to-unlock feature and did not show a nexus to Apple's *particular* slide-to-unlock mechanism. That argument need not be reached because Samsung did not make it on appeal.

(II) FIRST FEATURE SHOWN IN ORIGINAL IPHONE TV COMMERCIAL; CASE LAW ON ADVERTISING AS EXTERNAL FACTOR. The patented slide-to-lock feature of the iPhone was the first shown in Apple's “original iPhone TV commercial.” Election of Apple's “marketing experts” to emphasize the feature could be found by a reasonable jury to be “evidence of its importance.” The jury could also reasonably conclude that the advertising focusing on the feature “could influence customer purchasing decisions.” Federal Circuit cases had recognized that a success-to-merits nexus finding could be undermined by factors external to the patented invention, such as marketing and advertising. *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1129-30 (Fed. Cir. 2000); *In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994). However, those cases, unlike the present one, “did not involve an advertising campaign that specifically stressed and highlighted the patented feature as a way to introduce a new, complex product to the public.”

(III) FEATURE AS FIRST IMPRESSION; SALE POINT. An inventor named in the patent, who was also an Apple Vice President, testified that the iPhone's patented slide-to-unlock feature was important because it was a potential customer's “first experience” with the product and was apt to influence a decision to purchase an iPhone.

(IV) STEVEN JOBS VIDEO; UNVEILING FEATURE; CHEERS. A video of Steve Jobs unveiling the slide-to-unlock feature and causing the audience to “burst into cheers” supported “a conclusion that consumers valued this particular feature.”

(D) LONG-FELT NEED; EXPERT TESTIMONY; INFRINGER'S INTERNAL DOCUMENTS: ALTERNATIVE SOLUTIONS FAILING TO SOLVE PROBLEM. Testimony by an expert and one of the named inventors, supported the jury's implied finding that there was a “long-felt but unresolved need” for a solution to the problem until the claimed slide-to-unlock invention solved it. The expert discussed alternative solutions that had failed to solve the problem. Also, the accused infringer's internal documents showed that it had rejected alternative unlock mechanisms as inferior to Apple's slide-to-unlock. “The jury could have found that these

Samsung documents show that Samsung, Apple's fiercest competitor, was unsuccessfully trying to solve the same problem.”

(vi) **ULTIMATE LEGAL CONCLUSION; GRAHAM FRAMEWORK.** Weighing all the factors the Supreme Court set out its *Graham* framework (that is, prior art scope and content, differences between the claim and the prior art, the level of skill in the pertinent art, and secondary considerations) in light of the jury’s implied findings on those factors, the majority agreed “with the district court on the ultimate legal determination that Samsung failed to establish by clear and convincing evidence that claim 8 of the '721 patent would have been obvious.”

(A) **REFERENCES: “FAR FROM OBVIOUS.”** The Plaisant and Neonode references both related to touchscreens, but Plaisant described the complexity and “difficulty implementability” of sliders, leading to users not preferring them. It seemed “far from obvious” that “a skilled artisan would look to the Plaisant paper directed to a wall-mounted interface screen for appliances and then choose the slider toggle, which the study found rated fifth out of six options in usability, to fulfill a need for an intuitive unlock mechanism that solves the pocket dialing problem for cell phones.”

(B) **OBJECTIVE INDICIA: “PARTICULARLY STRONG”; WEIGHT “POWERFULLY.”** The objective indicia, as implicitly found by the jury, were “particularly strong” and weighed “powerfully” “in favor of validity.”

(vii) **PROST, DISSENTING.** In her dissenting opinion, Judge Prost argued that there was no substantial evidence to support the jury’s implicit findings on motivation to combine and secondary considerations.

(A) **MOTIVATION TO COMBINE.** The substantial evidence standard required that there be at least *some* evidence. Here, there was none to support a finding that there would not have been a motivation to combine Neonode and Plaisant.

(I) **TEACHING AWAY?** The majority’s statement that Plaisant’s disclosure of preferences for alternatives to slides was “relevant” to motivation to combine even if there was no “teaching away” was a “new” rationale. Also, as a matter of law, mere disclosure of more than one alternative did not amount to teaching way from one alternative absent criticism of that alternative. *SightSound Techs., LLC v. Apple Inc.*, 809 F.3d 1307, 1320 (Fed. Cir. 2015); *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 964 (Fed. Cir. 2014).

(II) **APPLE’S EXPERT: NO TESTIMONY ON MOTIVATION.** The majority cited the testimony of Apple’s expert, but the cited portion of the testimony only restated Plaisant’s express disclosure, that is, that it was of a touch screen mounted on a wall. The expert did *not* testify on whether a skilled artisan would have looked to Plaisant to solve an “unintentional activation” problem. The expert

also testified that the PTO had considered Plaisant during prosecution. However, Apple did not rely on that fact as showing motivation.

(III) “In stark contrast” to the absence of testimony on the lack of motivation, there was “compelling evidence” of motivation. Plaisant expressly taught that an “advantage” of the slider was that it was “less likely to be done inadvertently.” That did “more than motivate” a Plaisant-Neonode combination: it actually suggested it. Samsung’s expert explained why it would have been “natural” and “routine” to think of taking the slider idea from Plaisant and putting it into Neonode.

(IV) The record, as a whole, made clear that a skilled artisan “starting with the portable phone of Neonode, would have seen a benefit to adding Plaisant’s sliders to solve the accidental activation problem described by the ’721 patent.”

(V) Plaisant was, without dispute, analogous art, and case law directed that a skilled artisan would be presumed to be aware of it. E.g., *Mast, Foos, & Co. v. Stover Mfg. Co.*, 177 U.S. 485, 494 (1900).

(B) MAJORITY’S ANALYTICAL FRAMEWORK: UNCLEAR. Judge Prost noted that the majority’s “analytical framework” was unclear.

(I) IF NO MOTIVATION TO COMBINE REFERENCES, WHY CONSIDER SECONDARY CONSIDERATIONS? Given its conclusion of support for a finding of no motivation to combine the references, there was no reason for it to go on to consider secondary considerations.

(II) WEIGH REFERENCE TEACHINGS WITH SECONDARY CONSIDERATIONS? If the majority weighed the secondary considerations with the teachings of the Plaisant reference “as part of the ultimate legal question of obviousness,” that was “a new approach that neither we nor the Supreme Court has sanctioned.”

(C) SECONDARY CONSIDERATIONS. Because she had concluded that “no reasonable jury could find a lack of motivation to combine,” Judge Prost noted that she (unlike the majority) was “obligated to consider Apple’s proffered evidence of secondary considerations.” E.g., *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1339 (Fed. Cir. 2016).

(I) In its history, the Federal Circuit had held that secondary considerations outweighed “strong evidence of obviousness” only once. In *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340 (Fed. Cir. 2012), seven types of such evidence supported nonobviousness. In the present case, however, the evidence was *not* so “extensive.”

(II) Federal Circuit cases indicated that (1) objective indicia

evidence must be attributable to a patent's "inventive characteristics," *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 n.6 (Fed. Cir. 2012), (2) a proponent of the evidence bears the burden of showing a nexus between claimed features and the evidence, *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999), (3) nexus is a fact question, reviewed for substantial evidence, but consideration of objective indicia is part of the ultimate legal determination of obviousness, *Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1344 (Fed. Cir. 2008), and (4) mere existence of objective indicia does not control that determination, *Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1483 (Fed. Cir. 1997).

(III) COMMERCIAL SUCCESS: NO NEXUS. There was no record evidence of a nexus between the patented slide-to-unlock feature and any commercial success. Apple's expert testified that the iPhone was successful but not that the success was because of the feature. The survey was for a tablet with a screen larger than a phone. Apple presented no separate evidence of the sales of the tablet. The majority relied on the television commercial, but Apple had not relied on it to show commercial success in the district court or on appeal.

(IV) LONG-FELT NEED, INDUSTRY PRAISE, COPYING. The rest of Apple's evidence, on long-felt need, industry praise, and copying, even if a nexus was assumed, was "not sufficient to tip the scales of patentability." *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966). The applause at the unveiling by Steve Jobs was "weak. In *In re Cree*, 818 F.3d 694, 702 (Fed. Cir. 2016), the Federal Circuit had held "a company's press release unpersuasive evidence of non-obviousness." Internal Samsung documents were probative to show copying and industry praise but did "not move the needle in this case." In *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1370 (Fed. Cir. 2011), the Federal Circuit had found copying evidence "unpersuasive."

(D) REVERSE DOZENS OF IMPLICITLY FINDINGS? The majority implied that it would be inappropriate to "reverse nearly a dozen fact findings." However, the number of findings underlying a legal conclusion was irrelevant. The Federal Circuit had reversed jury nonobviousness findings "not infrequently" and that usually required reversing "multiple fact findings. E.g., *W. Union Co. v. MoneyGram Payment Sys., Inc.*, 626 F.3d 1361, 1368-1374 (Fed. Cir. 2010).

(viii) **DYK, DISSENTING**; MOTIVATION AND SECONDARY CONSIDERATIONS AS LAW, NOT FACT. Judge Dyk agreed with Judge Prost's arguments that there was no substantial evidence supporting any implied

jury finding of no motivation to combine the Neonode and Plaisant references or of a nexus between the claimed invention and the objective indicia. But he argued further that, under Supreme Court authority, as a matter of law, a claimed invention was obvious if it was a combination of references to solve a known problem with no unexpected result. See § SCG-1542.13. Further, under that authority, the significance and weight of secondary consideration was a matter of law for the court, not fact for a jury, and secondary considerations could only “tip the scales of patentability” when it was a “close” question. See § SCG-1531.

(A) TRIVIAL NATURE; ONLY INNOVATION ASSOCIATED WITH (PRIOR ART) SLIDING GESTURE; INVALIDATION IN ENGLAND, NETHERLANDS, GERMANY. Judge Dyk argued that the ‘721 patent’s claim invention was of a “trivial nature.” The slide-to-unlock feature itself was shown in the Neonode prior art. The patent’s only innovation was “an image associated with the sliding gesture from fixed starting to ending points.” Corresponding patents had been held invalid by courts in England, the Netherlands, and Germany.

(B) SOLVING KNOWN PROBLEM: INADVERTENT ACTIVATION; NO UNEXPECTED RESULTS. The patent addressed a known problem, avoiding inadvertent activation. Apple did not claim that the combination achieved “unpredictable results.”

(C) FIELD OF ART; WALL-MOUNTED, NOT PORTABLE? SAME PROBLEM; ANALOGOUS ART. The majority allowed the jury to dismiss the Plaisant reference as not relevant art because it involved a wall-mounted touchscreen, not a portable device, and did not address the “pocket-dialing” problem. However, in *KSR* and in earlier decisions dating back to 1851, the Supreme Court rejected theories that “prior art addressing the same problem can be dismissed because it concerns a different device.” A prior art device need only address “the same problem within the same general field.” Here, claims were not limited to cell phones or the pocket-dialing problem. The patent was directed to portable devices, ease of use, and inadvertent activation. The Plaisant reference concerned the same problems. Also, *KSR* emphasized that any need or problem known in a field could provide a reason to combine prior art elements. Thus, even if the ‘721 patent did identify pocket-dialing as a problem, that would have only provided an additional reason to combine, not a reason not to combine. The majority’s approach could create a significant opportunity for a patent claimant to “dismiss relevant prior art” by “narrowly defining the relevant technology.” That approach contrasted with past Federal Circuit “jurisprudence” that included as analogous art references that were reasonably pertinent even if in a “different field.” *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1380 (Fed. Cir. 2007); *In re Paulsen*, 30 F.3d 1475, 1481 (Fed. Cir. 1994); *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). See § SCG-1512.20.

(D) SECONDARY CONSIDERATIONS; MINIMAL DIFFERENCE BETWEEN CLAIM AND PRIOR ART; FAILURE TO COMPARE CLOSEST PRIOR ART. The majority's holding that "small advances in prior art" could be "outweighed by secondary considerations" was contrary to Supreme Court authority. On long-felt need, it effectively overruled *George M. Martin Co. v. Alliance Machine Systems International LLC*, 618 F.3d 1294, 1302 (Fed. Cir. 2010), which held that a "long-felt need" was not "unsolved" when the difference between the prior art and a claimed invention was "minimal." Its approach to the other secondary considerations was similar. Also, even if the secondary considerations were "legally relevant," the majority failed to compare the "closest prior art" so as to establish a nexus between the considerations and the claimed invention, as required by Supreme Court and Federal Circuit precedent. E.g., *Kao Corp. v. Unilever United States, Inc.*, 441 F.3d 963, 969 (Fed. Cir. 2006); *Bristol-Myers Squibb Co. v. Teva Pharmaceuticals USA, Inc.*, 752 F.3d 967, 977 (Fed. Cir. 2014). The majority repeatedly compared the '721 patent to "inferior or nonexistent prior art." For example, it relied on the survey indicating customer preference for a phone with a slide-to-unlock feature compared to one without the feature. That comparison was irrelevant because the Neonode prior art disclosed a slide-to-unlock feature on a portable device. It relied on devices by Nokia and Samsung as showing a long-felt need, but those devices lacked the Neonode slide-to-unlock feature.

(ix) **REYNA, DISSENTING: MEANING OF SUBSTANTIAL EVIDENCE; ANY EVIDENCE?** Judge Reyna dissented, arguing that the majority erred by reviewing the case en banc. A question of exceptional importance that the Federal Circuit could have, but did not, address openly was the meaning of "substantial evidence." The majority implied that *any* evidence would suffice.

(A) SURVEY; PREFERENCE FOR SLIDE-TO-UNLOCK FEATURE; An example was Apple's survey evidence indicating that "consumers would rather purchase devices with a slide-to-unlock feature preventing accidental unlocking than purchase devices without a feature preventing accidental unlocking."

(B) SUBSTANTIAL EVIDENCE OF COMMERCIAL SUCCESS OF PATENT CLAIMING PARTICULAR SLIDE-TO-UNLOCK FEATURE. The majority cited the survey as "substantial evidence of commercial success of the '721 patent, which claims a particular slide-to-unlock feature."

(C) NO NEXUS. However, if the evidence was actually reviewed, as should be required, the survey could not "support an implicit jury finding of any commercial success" because prior art devices (Neonode) "included similar slide-to-unlock features." The success evidence was not tied to the novel aspects of the claimed invention, as case law required. E.g. *In re*

*Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011).

(c) **'172 PATENT: INTERFACE PROVIDING "AUTOCORRECT"**

**RECOMMENDATIONS.** The '172 patent concerned an interface on a portable device that provided "autocorrect" recommendations for a user inputting text. **U.S. Pat. No. 8,074,172.** HELD: substantial evidence supported the jury's implicit findings that a combination of two references asserted by Samsung failed to disclose every element of the asserted claim and that objective indicia supported unobviousness. Those findings supported a conclusion that Samsung failed to establish, by clear and convincing evidence, that the asserted claim would have been obvious.

(i) **CLAIM: DISPLAY WITH TWO AREAS.** Claim 18 was the only claim Apple asserted. It was to a "graphical user interface on a portable electronic device with a keyboard and a touch screen display." The display comprised two areas.

(A) **FIRST AREA: DISPLAY CURRENT TEXT (CHARACTER STRING) INPUT BY USER.** The "first area" displayed the text ("current character string") the user input with the keyboard.

(B) **SECOND AREA: SEPARATE; DISPLAY SUGGESTED REPLACEMENT.** The "second area" was "separate" from the first area. It displayed the current character string ("or a portion thereof") and a "suggested replacement character string" for it.

(C) **WHEREIN CLAUSES ON HOW USER REPLACES OR KEEPS CURRENT CHARACTER STRING** The claim recited three "wherein" clauses on how a user opted for replacing or keeping the current character string.

(I) **REPLACE: KEY ON KEYBOARD.** First, the current string was replaced if the user activated "a key on the keyboard associated with a delimiter."

(II) **REPLACE: GESTURE ON REPLACEMENT STRING.** Second, the current string was replaced if the user performed a gesture on the replacement string in the second area.

(III) **KEEP: GESTURE ON CURRENT STRING.** Third, the current string was kept if the user performed a gesture on the current string (or the displayed portion thereof) in the second area.

(ii) On infringement, Samsung argued only that "keyboard" should be construed as limited to a physical keyboard and should not extend to a "virtual" keyboard displaced on a touchscreen. The district court disagreed and granted summary judgment of infringement. HELD: the district court did not err in its construction. See § SCG-5229.31. At trial, the jury found the claim not invalid. The district court denied JMOL.

(iii) **OBVIOUSNESS ARGUMENT: TWO PRIOR ART REFERENCES; OBJECTIVE INDICIA; EXPERT TESTIMONY.** Samsung's obviousness argument was based on a combination of two references. Both Samsung and Apple presented expert testimony on the references and on objective indicia.



(A) THE REFERENCES: ROBINSON AND XRGOMICS. The two references were a Robinson reference on “automatic correction” of inaccuracies in a user’s keystroke entries and Xrgomics on “letter and word choice text input” for “reduced keyboard systems.

(B) SAMSUNG EXPERT,

(I) ROBINSON: ALL LIMITATIONS EXCEPT DISPLAY CURRENT CHARACTER STRING IN THE FIRST AREA.”

Samsung’s expert (Wigdor) testified that Robinson disclosed all the claim’s limitations except that requiring display of the “current character string” in “the first area.”

(II) FAMILIAR IDEA: DISPLAYING TEXT AT CURSOR. The expert testified that displaying a user’s input text at the “cursor” (that is, the point on a display indicating where a user is typing in text) was an idea familiar to anyone who used a computer since the 1970's.

(III) XRGOMICS. The expert testified that Xrgomics was an example of prior art providing the limitation missing from Robinson. In a figure, Xromics displayed an exemplary input text “deva” both at the cursor point and in a suggestions bar.

(IV) OBJECTIVE INDICIA; IPHONE SUCCESSFUL BUT NOT EMBODYING CLAIMED INVENTION. On objective indicia, Samsung’s expert testified that “none ... where met.” The iPhone was commercially successful, but, unlike the accused Samsung’s phones, it did not use the interface the patent claimed.

(C) APPLE EXPERT. Apple’s expert (Cockburn) disagreed with Samsung’s expert on “the scope and content of the prior art.”

(I) The expert testified that Robinson failed to disclose “a series of elements,” not just the current-text-in-first area limitation. Because Robinson did not display the current text in the first area, it did not disclose the three options in the “wherein” clauses for replacing or keeping text in the first area.

(II) The expert testified that Xrgomics did not display the elements missing from Robinson. Xrgomics concerned “word completion,” not spelling completion. In its “deva” example, Xrgomics suggested words “devastating,” “devalue,” and “devastated.” Xrgomics did not disclose replacement of a current character string in the first area because, when the user pressed a space bar, “deva” was kept, not replaced.

(III) OBJECTIVE INDICIA; SAMSUNG SALES; SURVEY; INTERNAL DOCUMENTS; CARRIER REQUEST TO SAMSUNG TO ADOPT CLAIMED AUTOCORRECT. Apples’ expert disagreed with the Samsung expert’s testimony on objective indicia. First, on commercial success, he indicated that Samsung’s

sales of 7.5 million (infringing) phones using the claimed technique evidenced commercial success as did Apple's survey indicating a user preference for the claimed feature. Second, on industry praise, he cited Samsung's internal documents, including one in which a phone carrier requested that "Samsung modify its autocorrect technology to adopt the functionality of claim 18."

(iv) **PRIOR ART FAILURE TO DISCLOSE EVERY CLAIMED ELEMENT; CREDITING APPLE'S EXPERT OVER SAMSUNG'S.** As the district court reasoned in denying JMOL, the jury implicitly credited the Apple expert's testimony over that of Samsung's expert. That testimony provided substantial evidence supporting a implied factual finding that the references did not disclose all the elements of the claim.

(A) Apple's expert testified that (1) neither reference disclosed that "the current character string in the first area is replaced with the suggested replacement character string," (2) Robinson did "not disclose replacing text at all," and (3) Xrgomics did "disclose text *replacement* at all," teaching instead "text *completion*."

(B) Samsung's expert provided conflicting testimony, but the jury was free to credit Apple's expert. An appellate court could not "reweigh the evidence."

(v) **OBJECTIVE INDICIA; NO EFFECTIVE APPEAL.** The jury implicitly found that Apple's objective indicia evidence supported nonobviousness. Samsung did not effectively appeal that finding.

(A) **FOOTNOTE; "SAME REASONS" AS FOR '721 PATENT.**

Samsung only mentioned the indicia in a footnote, which stated that the indicia were inapplicable to the '172 patent for the "same reasons" Samsung had given for the '721 patent. **COMMENT: PAGE LIMITS.** Page limits on appellate briefs may dictate brevity in arguments. That is especially so when an appeal concerns multiple patents and issues.

(B) **PASSING REFERENCES TO ARGUMENTS ON DIFFERENT PATENT: NOT MEANINGFUL DISPUTE ON WEIGHT OF OBJECTIVE INDICIA EVIDENCE.** Such a "passing reference" to different evidence and arguments on a different patent claiming "an entirely different invention" did *not* "constitute a meaningful dispute regarding the weight of Apple's evidence of objective indicia of nonobviousness or the jury's fact findings in favor of Apple."

(vi) **CONCLUSION; WEIGHING GRAHAM FACTORS; "GAP" IN PRIOR ART NOT FILLED BY TWO REFERENCES.** As the district court concluded, after weighing all the *Graham* factors, there was "substantial evidence for a reasonable jury to have found that there was a gap in the prior art that was not filled by the combination of Robinson and Xrgomics, and that the entirety of the evidence weighs in favor of nonobviousness."

(vii) **PROST, DISSENTING: NO SUBSTANTIAL EVIDENCE ON**

NONOBVIOUSNESS; OUT-OF-CONTEXT STATEMENTS BY APPLE'S EXPERT. Dissenting, Judge Prost argued that the majority erred in finding substantial evidence to support a jury finding that the '172 patent was nonobvious. Its conclusion that there was evidence that the two prior art references did not disclose all the claim elements relied "entirely on out-of-context statements" by Apple's expert. Further, there no substantial evidence from which a jury could find that a motivation to combine the references was lacking.

(A) The majority did not, and could not, cite any evidence that Xrgomics failed to disclose the current text in a first area. It plainly did. Instead, the majority held, based on the Apple expert's testimony, that neither Robinson nor Xrygomics disclosed text "replacement" as opposed to text "completion."

(B) It was "demonstrably incorrect" to find that the Robinson reference did not disclose replacement, and the Apple expert's testimony, considered in context, was not to the contrary.

(I) The Apple expert's primary testimony was that Robinson did not disclose displaying the current text in the "first area" (that is, at the cursor point). He used that point (and that point *only*) to conclude that Robinson lacked other elements on replacing the current text in the first area. The expert did *not* testify that Robison did not disclose replacing or keeping text "per se"

(II) There could have been no dispute that Robinson did disclose replacing and keeping text in a "different area of display." As Samsung's expert explained, Robinson showed a "pop-up menu" that included the typed text and a suggested a replacement. The user could accept the default by pressing the space key or could select the text as typed.

(C) As noted, Xrgomics supplied the display-current-text-in-first-area limitation. A reasonable jury could only have concluded that "taking Robinson and supplying that limitation from Xrgomics would result in the claimed invention." There was "no evidence--let alone substantial evidence--to support the jury's finding that Robinson and Xrgomics, when combined, would not disclose every limitation of the asserted claim."

(D) MOTIVATION TO COMBINE. The majority opinion did not address whether there was motivation to combine, but there was "no substantial evidence upon which a reasonable jury could decide that motivation was lacking."

(I) Samsung's expert testified, without rebuttal, that a skilled artisan, seeing how Robinson and Xrgomic worked, would have

recognized that the element missing in Robinson was the common practice of showing typed text at the cursor.

(II) BOTH REFERENCES: SAME PROBLEM; PREDICTABLE RESULTS. Both Robinson and Xrgomic addressed “the same problems that arise from typing on a relatively small keyboard.”

There was no indication of anything other than predictable results from the combination. Thus, the claimed fell within the Supreme Court’s directions in *KSR* on an obvious combination.

(E) SECONDARY CONSIDERATIONS. Apples’ secondary consideration evidence was insufficient on the ‘172 patent for the same reasons as on the ‘721 patent. On the evidence of the commercial success of Samsung’s phone with the claimed autocorrect feature, the evidence did “not show the required nexus between the patented feature and Samsung’s commercial success.” And the other evidence, such as Samsung’s internal documents describing alternative approaches as “jarring,” was “not sufficient to `tip the scales of patentability.’ *Graham*, 383 U.S. at 36.”

(viii) **DYK, DISSENTING.** As he argued with the ‘721 patent, Judge Dyk argued that the ‘172 patent’s claimed invention was obvious as a matter of law. Its only innovation was “displaying contemporaneously the text to be autocorrected.” It addressed a known problem, “the need to see text entries.” The majority erred by making “much of of the distinction between word correction versus word completion, rejecting Xrgomics as relevant prior art on that basis, and ignoring the extensive prior art showing text display as a routine feature.” Contradicting the majority’s conclusion that Xrgomic was “in different technology” (text *completion* as opposed to text *correction*) was Samsung’s evidence that displaying the text of what a user types was a long familiar idea and the patent’s recognition that it pertained to a “relative broad field of prior art,” that relating “generally to text input on portable electronic devices.” As with the ‘721 patent, the majority’s secondary considerations analysis failed to compare the claimed innovation with the closest prior art, Robinson.

(d) **‘647 PATENT: DETECTING STRUCTURES (E.G, PHONE NUMBERS, ADDRESSES, DATES) IN DOCUMENTS; LINK ACTIONS TO STRUCTURE.** The ‘647 patent concerned detecting, in documents, “structures,” such as phone numbers, addresses and dates, and linking actions, such placing a phone call or adding address to electronic address book. **U.S. Pat. No. 5,946,647.** See § **SCG-5229.33.**

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5229.33.

*Apple Inc. v. Samsung Electronics Co., Ltd.*, 2016 U.S. App. LEXIS 18225 (Fed. Cir. 2016) (en banc)

(1) In suit and countersuit, vendors of “smartphones,” Apple Inc. and Samsung Electronics Co., asserted against each other claims in seven patents. After a 13 day jury trial, a district court

entered judgments on validity and infringement of five Apple patents and two Samsung patents. Samsung appealed; Apple cross-appealed. On three Apple patents adjudged infringed and not invalid, a Federal Circuit panel concluded that, notwithstanding the jury verdict, the asserted claim in one ('647) was not infringed. The Federal Circuit granted rehearing en banc and reversed. It also reversed the panel's holding that other two patents ('172 and '721) were invalid for obviousness. See § **SCG-1565.50**.

(a) **'647 PATENT: DETECTING STRUCTURES (E.G, PHONE NUMBERS, ADDRESSES, DATES) IN DOCUMENTS; LINK ACTIONS TO STRUCTURE.** The '647 patent concerned detecting, in documents, "structures," such as phone numbers, addresses and dates, and linking actions, such placing a phone call or adding address to an electronic address book, to those structures. **U.S. Pat. No. 5,946,647.**

(i) CLAIM. Apple asserted claim 9, which depended on claim 1 (and, therefore, incorporated claim 1's limitations).

(A) PREAMBLE; SYSTEM. The claim's preamble was a "computer-based system for detecting structures in data and performing actions on detected structures."

(B) FOUR ELEMENTS: INPUT, OUTPUT, MEMORY (WITH PROGRAM ROUTINES), PROCESSING UNIT. The system comprised five elements: (1) "an input device for receiving data," (2) "an output device for presenting the data," (3) "a memory storing information including program routines," and (4) "a processing unit coupled to the input device, the output device, and the memory for controlling the execution of the program routines."

(C) THREE ROUTINES. The "program routines" included three.

(I) **"ANALYZER SERVER": DETECT STRUCTURES IN DATA AND LINKING ACTIONS TO THEM.** The first, hotly-disputed routine was: "an analyzer server for detecting structures in the data, and for linking actions to the detected structures."

(II) **USER INTERFACE ENABLING SELECTION OF DETECTED STRUCTURE AND LINKED ACTION.** "The second was: "a user interface enabling the selection of a detected structure and a linked action."

(III) **ACTION PROCESSOR.** The third was: "an action processor for performing the selected action."

(ii) CONSTRUCTION OF "ANALYZER SERVER" AND "LINKING ACTIONS IN *MOTOROLA* (2014). In *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), a separate litigation involving the '647 patent, the Federal Circuit had previously construed the terms "analyzer server" and "linking actions to the detected structures."

(A) **"ANALYZER SERVER": SERVER ROUTINE SEPARATE FROM CLIENT.** In *Motorola*, the Federal Circuit construed "analyzer server" as "a server routine separate from a client that receives data having structures from the client."

(B) “LINKING ACTIONS”: SPECIFIED CONNECTION. In *Motorola*, the Federal Circuit construed “linking actions to the detected structures” as “creating a specified connection between each detected structure and at least one computer subroutine that causes the CPU [central processing unit] to perform a sequence of operations on that detected structure.”

(iii) *MOTOROLA* ISSUES ON LAST DAY FOR PRESENTING EVIDENCE AT TRIAL. The *Motorola* opinion issued on the final day for presenting evidence at trial in this action (*Apple v. Samsung*).

(A) PRIOR *MARKMAN* HEARING: NEITHER PARTY SOUGHT CONSTRUCTION; RELIANCE ON PLAIN AND ORDINARY MEANING. In an earlier *Markman* claim construction, neither Apple nor Samsung sought a construction of “analyzer server” or “linking actions.” Both relied “on the plain and ordinary meanings of those terms.”

(C) AGREEMENT: GIVE *MOTOROLA* CONSTRUCTION TO JURY; REOPEN EVIDENCE; IMPACT OF CONSTRUCTIONS. After *Motorola* issued, Apple and Samsung agreed that the district court should give the *Motorola* constructions to the jury after reopening evidence for expert testimony on the impact of those instructions on infringement.

(iv) The district court gave instructions based on *Motorola*. The jury found infringement of the ‘647 patent and awarded Apple damages of \$98,690,625. The district court denied Samsung’s motion for judgment as a matter of law (JMOL) of non-infringement. On appeal, it argued the district court erred in denying JMOL.

(b) PANEL. The Federal Circuit panel reversed the denial of JMOL, holding that no reasonable jury could conclude Samsung’s devices met the “analyzer server” limitation. *Apple Inc. v. Samsung Electronics Co., Ltd.*, 816 F.3d 788 (Fed. Cir. 2016), *vacated and reinstated in part*, --- F.3d ---- (Fed. Cir. 2016) (en banc). The devices used to carry out the structure-detecting and action-linking functions contain “software library programs. The panel reasoned that those programs were not “standalone” programs that could run separately. The panel found it unnecessary to address Samsung’s argument that its devices did not meet satisfy the linking action limitation.

(c) ANALYZER SERVER. The en banc majority rejected the panel reasoning and holding on the “analyzer server” limitation. It held instead that substantial evidence, including testimony by Apple’s expert, supported the jury’s implicit finding that the library code in Samsung devices met the analyzer server limitation under the agreed *Motorola* construction requiring that analyzer be a “separate” server routine.

(i) MODIFYING AGREED, UNAPPEALED CONSTRUCTION. To reverse the infringement finding, the panel improperly used “extra-record extrinsic evidence” to modify the “agreed” and “unappealed” *Motorola* construction.

(A) “STANDALONE”. The panel held that the Samsung devices did not infringe because the library programs were not “standalone” programs that “run separately.”

(B) “EXTRA-RECORD EXTRINSIC EVIDENCE”; DICTIONARY AND

TEXT; The panel used “extra-record extrinsic evidence to understand the operation” of the Samsung devices. It stated that “the software library program runs as part of the client program.” As authority, it cited a 1996 computer dictionary definition of “software library” and a 1994 text stating that a “client” and “server” relationship assumed a “clean separation of functions,” with each “independently operating programs.”

(C) NO SUPPORT IN *MOTOROLA* FOR “RUN SEPARATELY” OR “STANDALONE” REQUIREMENT; SEPARATE LOCATIONS IN MEMORY. The *Motorola* decision did not support expanding its “separate routine” construction to require that the “analyzer server” either “run separately” or “stand alone” from a client application (program). *Motorola* used the word “separate” in describing *locations*. Thus, it described “separate parts” of memory and described the analyzer server and client application as “separate structures.”

(ii) NO AGREEMENT BY APPLE TO “RUN SEPARATELY”

INTERPRETATION. Dissenting Judges Prost and Dyk (but not Judge Reyna) argued that Apple had agreed to the panel construction that an “analyzer server” must “run on its own.” However, the majority noted, the dissent took Apple’s statement “out of context.” When Apple’s counsel stated that the analyzer server ran separately, he was explaining that the server ran “in its own location in memory.” The library code, which was shared with other applications, was not “copied into and run as part of the client application.” In oral argument to the panel and its brief seeking rehearing, Apple through its counsel clearly rejected the panel suggestion that “separate” meant a “standalone program which runs separately.”

(iii) DISSENTS: LIBRARY PROGRAMS CANNOT MEET ANALYZER LIMITATION? The majority opinion noted that the dissenting Judges Prost and Dyk also argued that library programs could not “satisfy the analyzer server limitation despite the fact that they are separate programs which perform detecting and linking actions in response to a client request as required by the claims.”

(A) CLIENT USES ANALYZER SERVER TO PERFORM LINKING AND DETECTING FUNCTIONS. However, the claim language plainly indicated the client application used the analyzer server to perform the linking and detecting functions.

(B) SAMSUNG NON-INFRINGEMENT ARGUMENT: *WHERE* USED, NOT *WHETHER* USED BY CLIENT. Samsung’s argument for noninfringement was based on “*where* the shared library code was used (whether it was copied into the client application before use), not whether it was used by the client application.”

(C) There was “no foundation” for a “concept that the analyzer server must be ‘standalone’ or ‘run on its own’ or run in isolation apart from a client request” in the patent itself, in *Motorola*, or in the briefs of Apple and Samsung on appeal.

(iv) IS THERE SUBSTANTIAL EVIDENCE FOR JURY INFRINGEMENT FINDING UNDER *MOTOROLA* SEPARATE-ROUTINE CONSTRUCTION? The majority returned to the *Motorola* construction to “evaluate whether there is substantial evidence for the jury’s finding of infringement.”

(A) THE PARTIES’ DISPUTE: *WHERE* DOES SHARED LIBRARY CODE IN ACCUSED DEVICE PERFORM THE CLAIMED FUNCTIONALITY? There was no “real dispute” between Apple and Samsung on *whether* the “shared library code” in the accused Samsung devices performed the “claimed functionality” (that is, detecting structures in data and linking actions to the structures). The code did so. The dispute was on *where* the code performed the functions.

(B) SAMSUNG: CLIENT APPLICATIONS CONTAINED OWN ROUTINES FOR PERFORMING FUNCTIONALITY? COPIED FROM LIBRARY AND RAN AS PART OF CLIENT APPLICATION (NOT SERVER)? Samsung argued that the uncontested evidence showed that the pertinent “client” applications in its devices (“Browser” and “Messenger”) contained “their own routines *within the application*” for performing the detecting and linking functions. Samsung’s expert (Jeffay) testified that those client applications copied the shared library code and ran as part of the application.

(C) APPLE: LIBRARY CODE NEVER COPIED? CLIENT APPLICATION USED CODE IN LIBRARY? CODE SEPARATE FROM CLIENT? Apple argued that the library code was “never copied” but remained “at the library.” A client application wishing to use the code went to the library and used it there. Apple’s expert (Mowry) testified that (1) the shared library code and client applications were “separate” because they were “located in separate parts of memory,” (2) the shared libraries were developed independently of the application and to be “reused across different applications,” and (3) there was “only one copy of the shared library code.” The expert concluded that the library code and client programs were “definitely separate.”

(D) SUBSTANTIAL EVIDENCE; CONFLICTING EXPERT TESTIMONY. The testimony of Apple’s expert constituted “substantial evidence to support the jury’s finding that the accused devices meet the ‘analyzer server’ limitation.”

(I) JURY RESOLUTION OF CREDIBILITY. There was conflicting testimony by Samsung’s expert, but case law confirmed that it was for a jury to resolve which witness was more credible. *MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1168 (Fed. Cir. 2015).

(II) INCONSISTENCIES IN TESTIMONY BY SAMSUNG’S EXPERT. Also, the district court “repeatedly mentioned that Samsung’s expert Dr. Jeffay gave inconsistent testimony”: “A



reasonable jury could have concluded that such inconsistencies negatively impacted the persuasiveness of Dr. Jeffay's opinions.”

(d) “LINKING ACTIONS.” There was substantial evidence supporting the jury's finding that the accused devices met the ‘linking actions’ limitation as interpreted in *Motorola*.

NOTE: the dissents did not address the “linking actions” issue.

(i) *MOTOROLA* CONSTRUCTION; CREATING “SPECIFIED CONNECTION.” As noted above, *Motorola* construed “linking actions to the detected structures” as “creating a specified connection between each detected structure and at least one computer subroutine that causes the CPU [central processing unit] to perform a sequence of operations on that detected structure.”

(ii) At trial, Apple’s expert (Mowry) testified that a subroutine entitled “startActivity()” provided the required “specified connection” between a detected structure and the operations.

(iii) Samsung argued that the “startActivity() did not provide the “specified connection” but merely determined which application would perform a requested action. An example illustrated the argument.

(A) The accused Samsung phone ran the “Android” operating system provided by Google.

(B) An Android phone typically contained “multiple applications” that were capable of sending an e-mail.

(C) When a user input a command to send an e-mail, the phone prompted user to select which of several applications to use.

(D) Samsung argued that the “specified connection” requirement was not met because a user’s command was not “tied to a particular application that performs the command.” Thus, there was no “specified connection” between the structure and the command.

(iv) A problem with Samsung’s argument was that the *Motorola* construction did *not* require that the “specified connection” be between the detected structures and the applications performing operations on them. Rather, it required that the connection be between the structure and the computer subroutine that “caused” the central processing unit (CPU) to perform the operations.

(v) The testimony of Apple’s expert (Mowry) provided substantial evidence supporting the jury’s infringement finding.

(A) The expert explained how the “startActivity()” was a subroutine that operated to “cause” the CPU to perform the operations on a detected structure.

(B) He explained that the startActivity() subroutine was “necessarily” called when a user selected a particular action. If the user picked “a particular option,” the subroutine passed that information to another procedure, the “Start Activity,” which acted as a “launcher.”

(vi) NO TIMING LIMITATION. Samsung argued that “the specified connection” must have been in place *before* the user selected “a command to begin operations on a detected structure.” That argument was “premised on Samsung’s contention

that startActivity() does not satisfy the specified connection limitation.” But substantial evidence supported the jury’s finding that startActivity() *did* satisfy the limitation. And, “regardless,” there was no timing limitation in the claim construction, which Samsung did not appeal.

(e) **PROST, DISSENTING.** The majority “implicitly” modified the prior *Motorola* server-routine-separate-from-a-client construction of “analyzer server.” That construction was “binding on and agreed by the parties.” Also, Apples’ evidence showed only that the shared library code in the Samsung devices was “located in a separate of memory that is used by other applications.” That was *not* sufficient under the *Motorola* construction.

(i) Samsung did not dispute the construction. That construction was binding on the patent owner Apple under the principles of collateral estoppel. *Blonder-Tongue Lab., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 328-29 (1971). See § SCG-7200.

(ii) On whether substantial evidence supported the jury’s finding that the accused devices met *Motorola*’s server-routine-separate-from-a-client requirement, Judge Prost agreed with Judge Dyk’s analysis and added points.

(iii) **ERRONEOUS “STRUCTURALLY SEPARATE” INTERPRETATION.** The majority asserted that a “structurally separate” program satisfied the *Motorola* “separate” requirement. But *Motorola* did not “so cabin” “separate.”

(A) **READING “SEPARATE” OUT OF CONSTRUCTION; TWO ROUTINES, BY DEFINITION, SEPARATE IN STORAGE.** The majority’s interpretation read “separate” out of the *Motorola* construction because two routines would necessarily be separate in storage: they could not “physically occupy the same memory at the same time.”

(B) **SERVER ROUTINE; PLAIN MEANING OF “SERVER”; SERVER-CLIENT RELATIONSHIP.** Also, the majority interpretation failed to respect the *Motorola* requirement that the routine be a *server* routine. *Motorola* relied on “the plain meaning of ‘server,’ which entailed a client-server relationship. See *Motorola*, 757 F.3d at 1304-05.”

(C) **APPLE: NOT ADVOCATE SEPARATE STORAGE INTERPRETATION; CODE INDEPENDENTLY DEVELOPED AND DESIGNED FOR REUSE BY OTHER APPLICATIONS?** Apple did not advocate the “structurally separate” interpretation the majority adopted. Rather, it argued that the identified code was “separate” not only because of its location but also because it was separately developed and designed “to be reused across different applications.”

(iv) There was no substantial evidence that the “shared library code” met the *Motorola* construction.

(A) There was nothing in the construction indicating that independent development or reuse, which Apple relied on, was relevant.

(B) Apple’s only evidence was that the code was stored at a separate location. That was not the only requirement of the construction.

(C) Samsung provided evidence via its expert why the shared library code

was not “separate.” The majority argued that the jury could have found that expert’s testimony on the “analyzer server” was inconsistent. It cited the district court’s criticism of the expert, but that criticism was “not made in front of the jury” and Apple did not argue on appeal that the expert’s testimony was inconsistent.

(D) Finally, Apple’s expert admitted that the library code was not capable of running “outside of the client application.”

(E) Apple provided no explanation for why the shared library code could be considered a “server” routine.

**(f) DYK, DISSENTING: PARTIES’ AGREEMENT THAT “ANALYZER SERVER” MUST “RUN” SEPARATELY; NO SUBSTANTIAL EVIDENCE; MAJORITY SUBSTITUTION OF OWN “SEPARATE STORAGE” CONSTRUCTION.** In dissent, Judge Dyk argued that Apple and Samsung had agreed that “analyzer server” must “run” separately, that there was no substantial evidence that the library code in Samsung’s devices ran separately, and that, to uphold the jury’s infringement finding, the majority improperly substituted its own construction, which required only separate storage, for the agreed construction. NOTE: Judge Dyk was the author of the panel decision in this case.

(i) Judge Dyk argued, both at the beginning and at the end of the portion of his dissent dealing with the ‘647 patent, that the majority erred by failing to give weight to the agreed construction.

(A) WEIGHT TO PARTIES’ INTERPRETATION; *TEVA* (2015); CLAIM CONSTRUCTION ANALOGOUS TO CONSTRUCTION OF CONTRACTS; COMPLEX TECHNOLOGY. At the beginning, Judge Dyk cited *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 833 (2015), in which the Supreme Court noted that patent claim construction entailed “much the same task” as construction of other written instruments, such as contracts. In contract law, courts gave great weight to the parties’ interpretation of the contract. Judge Dyk argued that the same should be true when “the parties agree as to the meaning of technical terms in infringement litigation, where the outcome affects only the particular parties to the dispute.”

(B) IMPORTANT REASONS. At the end, Judge Dyk argued that there were “important reasons why an appellate court should not reject the parties’ agreed claim construction.” In this case, as in many other patent cases, the court dealt with “complex technology that is beyond the knowledge of lay judges.” This posed a problem, which Supreme Court justices had acknowledged. In *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966), the Court noted: “[T]he judiciary ... is most ill-fitted to discharge the technological duties cast upon it by patent legislation.” In *Marconi Wireless Tel. Co. v. United States*, 320 U.S. 1, 61-62 (1943), Justice Frankfurter in dissent noted: “[C]onsciousness of their limitations should make [the courts] vigilant against importing their own notions of the nature of the creative process ....” Judge Dyk argued: “Substituting the

views of lay judges for the agreement of the parties, who are intimately familiar with the technology, risks getting the construction quite wrong.” He concluded that such was “exactly what happened here,” with the majority’s “freelance reinterpretation of ‘analyzer server’ which departs from the parties’ agreed-upon construction.” He added that it was “difficult enough for the court to arrive at a claim construction when the parties disagree” and warned that a court “should be very wary to override the parties’ agreement as to claim construction when the parties are the experts in the technical matters.”

(ii) AGREEMENT: SERVER ROUTINE MUST RUN SEPARATELY. Judge Dyk noted that, in *Motorola*, the court had indicated that an analyzer server must be a “server routine” “consistent with the plain meaning of ‘server.’” That meant that “the server must run separately from the client application it servers.”

Apple’s counsel agreed with that construction, stating that the server “has to be run separately from the client.”

(iii) The “library program” on the Samsung could not be an “analyzer server.”

(A) Experts for Samsung and Apple agreed that a “library program” was code that other applications could access.

(B) As the name “library” implied, a client application could go to the software library and “borrow” (that is, use) code to perform a task. The “specific needed task” need not have been programmed into the client application.

(C) In a “client-server implementation,” which *Motorola* required, a client application sent information to an “independent server,” the server performed a task using the information, and then the server returned the information to the client application. That was not “what a library program does.”

(iv) The majority “explicitly” rejected the agreed run-separately construction and affirmed infringement based on its own separate-storage construction. Storing separately was not running separately. The majority’s approach was “inconsistent with” the Federal Circuit’ “appellate function.” The majority claimed that the dissents took Apple’s concession “out of context.” But Apple’s statement agreeing that separate meant run separately was repeated four times at oral argument and reiterated in Apple’s petition for rehearing. It was no “slip of the tongue.”

(v) STANDALONE. The majority indicated that the panel had erred by “equating running separately with a standalone program.” Stand alone might indeed have been a different concept, but the claim construction did require that the server run separately.

(vi) There was no evidence that the shared library code ran separately. Apple’s expert testified only that the accused code used shared library code. He admitted that library code was “incapable of running separately.” Thus, in the accused device, the client application, not the analyzer server, ran the library program.

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Apple Inc. v. Samsung Electronics Co., Ltd., 2016 U.S. App. LEXIS 18225 (Fed. Cir. 2016) (en banc) (MOORE, Newman, Lourie, O'Malley, Wallach, Chen & Stoll; HUGHES, concurring in result without opinion; PROST, dissenting; DYK, dissenting; REYNA, dissenting) ... SCG-1512.20, SCG-1531.20, SCG-1532.10, SCG-1532.40, SCG-1533, SCG-1534, SCG-1535, SCG-1537, SCG-1539, SCG-1542.70, SCG-1544.20, SCG-1546.20, SCG-1561.40, SCG-1565.40, **SCG-1565.50**, SCG-5221.20, SCG-5229.31, **SCG-5229.33**, SCG-5262.60, SCG-5313.50, SCG-5321.10, SCG-5321.30, SCG-5321.40, SCG-6313.40, SCG-7200, SCG-8560, SCG-8621.10, SCG-89621.20, SCG-8621.30

Apple Inc. v. Samsung Electronics Co., Ltd., 2016 U.S. App. LEXIS 18225 (**Oct. 7, 2016**) (en banc) (MOORE, Newman, Lourie, O'Malley, Wallach, Chen & Stoll; HUGHES, concurring in result without opinion; PROST, dissenting; DYK, dissenting; REYNA, dissenting)  
En banc review of panel decision without additional briefing  
Panel error by consideration of issues not raised  
Extra-record extrinsic evidence to construe patent claim in violation of *Teva*  
Substantial evidence  
Obviousness; motivation to combine; secondary considerations; nexus; commercial success; industry praise; copying; long-felt need