# United States Court of Appeals for the Federal Circuit

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**FINTIV, INC.,**
*Plaintiff-Appellant*

**v.**

**PAYPAL HOLDINGS, INC.,**
*Defendant-Appellee*

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2023-2312

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Appeal from the United States District Court for the Western District of Texas in No. 6:23-cv-00490-ADA, Judge Alan D. Albright.

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Decided: April 30, 2025

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MEREDITH LEIGH MARTIN ADDY, AddyHart P.C., Atlanta, GA, argued for plaintiff-appellant. Also represented by CHARLES A. PANNELL, III; BENJAMIN CAPPEL, Chicago, IL; JECEACA AN, Kasowitz Benson Torres LLP, New York, NY; MARCUS BARBER, JOHN DOWNING, DARCY L. JONES, HEATHER KIM, THUCMINH NGUYEN, JONATHAN K. WALDROP, Redwood Shores, CA; PAUL GUNTER WILLIAMS, Atlanta, GA.

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Before PROST, TARANTO, and STARK, *Circuit Judges*.

PROST, *Circuit Judge*.

Fintiv, Inc. ("Fintiv") sued PayPal Holdings, Inc. ("PayPal") for patent infringement in the U.S. District Court for the Western District of Texas. Relevant here, Fintiv asserted U.S. Patent Nos. 9,892,386 ("the '386 patent"), 11,120,413 ("the '413 patent"), 9,208,488 ("the '488 patent"), and 10,438,196 ("the '196 patent") (collectively, "the asserted patents"). After claim construction, the district court determined certain claim terms in the asserted patents were subject to 35 U.S.C. § 112 ¶ 6[1] and held the asserted claims invalid as indefinite. *Fintiv, Inc. v. PayPal Holdings, Inc.*, No. 23-0490, 2023 WL 5423082 (W.D. Tex. July 21, 2023) ("*Claim Construction Order*"). Fintiv appeals. For the reasons below, we affirm the district court's indefiniteness determination.

## BACKGROUND

The asserted patents generally relate to a "cloud-based transaction system," also referred to as a "'monetary transaction system', 'mobile wallet platform', 'mobile wallet program', 'mobile wallet transaction system', 'mobile financial services (mFS) platform' or 'electronic payment system.'"

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[1] The Leahy-Smith America Invents Act ("AIA") renamed § 112 ¶¶ 2 and 6 as, respectively, § 112(b) and (f). AIA, Pub. L. No. 112-29, sec. 4(c), 125 Stat. 284, 296 (2011). Because the applications resulting in the asserted patents were filed before September 16, 2012, we refer to the pre-AIA version of § 112. *See id.* sec. 4(e), 125 Stat. at 297; *see also Media Rights Techs., Inc. v. Cap. One Fin. Corp.*, 800 F.3d 1366, 1371 n.1 (Fed. Cir. 2015).

'488 patent col. 6 ll. 30–35. The '386 and '413 patents share a common specification and claim priority to provisional applications filed on June 3, 2011, and August 10, 2011. The '488 and '196 patents share a common specification and claim priority to a provisional application filed on November 21, 2011. The specifications for all four asserted patents are substantially similar.

The terms at issue are the payment-handler terms.[2] As relevant to this appeal, the payment-handler terms appear as follows in the asserted claims:

> a *payment handler service* operable to use [application programming interfaces ("APIs")] of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors.

'386 patent claims 1–3 (emphasis added).

> a *payment handler* configured to use APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, and bill payment processors.

'413 patent claim 1 (emphasis added); *see also id.* claim 2 (similar).

> a *payment handler* that exposes a common API for interacting with different payment processors.

'488 patent claim 1 (emphasis added); '196 patent claim 1 (same).

Aside from the claims, the only textual description of the payment-handler terms in the asserted patents is nearly identical to the claim language. *See, e.g.*, '386

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[2] For simplicity, we refer to the terms "payment handler" and "payment handler service" in the asserted patents as "the payment-handler terms."

patent col. 13 ll. 29–34 ("Payment handler **105** is configured to wrap APIs of different payment processors, such as, for example, banking accounts, credit/debit cards or processor **121**. Payment handler **105** exposes a common API to facilitate interactions with many different kinds of payment processors." (emphasis in original)); '413 patent col. 14 ll. 8–13 (same); '488 patent col. 10 ll. 4–9 (same); '196 patent col. 10 ll. 21–26 (same). The payment-handler terms also appear in Figures 1 and 20A–22J in the '386 patent, Figures 1 and 20A–22J in the '413 patent, Figure 1 in the '488 patent, and Figure 1 in the '196 patent.

At claim construction, the district court ruled from the bench that the payment-handler terms are indefinite. J.A. 3489 (48:5–8). Fintiv filed a motion for reconsideration of the court's construction of the payment-handler terms. J.A. 3438–54. The court heard argument on Fintiv's motion for reconsideration and then issued a written opinion denying Fintiv's motion for reconsideration and finding the asserted claims invalid due to indefiniteness. In particular, the district court evaluated whether the payment-handler terms are means-plus-function terms subject to § 112 ¶ 6 and, if so, whether the asserted patents' specifications disclose adequate corresponding structure to avoid indefiniteness. *Claim Construction Order*, 2023 WL 5423082, at *7–10.

On the first issue, the district court found that the payment-handler terms invoke § 112 ¶ 6. The court first noted that because the claim terms at issue do not use the word "means," a presumption exists that the claim terms do not invoke § 112 ¶ 6. *Id.* at *7. It also noted that this presumption can be overcome "by showing that the claim limitation recites 'function without reciting sufficient structure for performing that function.'" *Id.* (quoting *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc in relevant part)). The court found that PayPal overcame this presumption because the payment-handler terms are "drafted in a format consistent with traditional

means-plus function limitations, and merely replaces the term means with the term payment handler or payment handler service." *Id.* (cleaned up). It also found the "connecting terms, 'that,' 'operable to,' and 'configured to,' are used to describe the function performed by the 'payment handler' and 'payment handler service,'" and "[t]hese terms are consistently used by terms found to invoke section 112, ¶ 6, and do not themselves[] impart structure." *Id.*

Next, the district court found that the specifications of the asserted patents fail to disclose adequate structure corresponding to the claimed functions of "us[ing] APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors" and "expos[ing] a common API for interacting with different payment processors." *Id.* at *9 (alterations in original) (quoting '386 patent claim 1; '488 patent claim 1). Specifically, the court found that the specifications "disclose no structure at all, much less an algorithm for performing the recited functions." *Id.* Accordingly, the court held the claims at issue invalid as indefinite and entered final judgment.

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

## DISCUSSION

### I

"Regarding questions of claim construction, including whether claim language invokes [§ 112 ¶ 6], the district court's determinations based on evidence intrinsic to the patent as well as its ultimate interpretations of the patent claims are legal questions that we review de novo." *Williamson*, 792 F.3d at 1346. "To the extent the district court, in construing the claims, makes underlying findings of fact based on extrinsic evidence, we review such findings of fact for clear error." *Id.*

Fintiv offers two main arguments on appeal—first, that the district court erred in concluding that the payment-handler terms invoke § 112 ¶ 6; and second, that the district court erred in concluding that the specifications fail to disclose algorithmic structure for the claimed functions. We address each argument in turn.

## II

### A

The first step of a § 112 ¶ 6 analysis is to determine whether the claim term at issue is in means-plus-function format. *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1372–73 (Fed. Cir. 2020). The issue here is whether the payment-handler terms invoke § 112 ¶ 6, which the district court found they did. For the reasons below, we agree with the district court.

Here, the payment-handler terms obviously do not use the word "means." Thus, there is a rebuttable presumption that § 112 ¶ 6 does not apply. *Williamson*, 792 F.3d at 1348. That presumption "can be overcome and [§ 112 ¶ 6] will apply if the challenger demonstrates that the claim term fails to 'recite[] sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Id.* (second alteration in original) (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)); *see also id.* at 1349.

We agree with the district court that PayPal has overcome this presumption because the payment-handler terms recite function without reciting sufficient structure for performing that function. *Claim Construction Order*, 2023 WL 5423082, at *7–8. The relevant claim language of the '386 and '413 patents recites "a payment handler [service] [operable/configured] to use APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors," '386 patent claims 1–3; '413 patent claims 1–2, while the

'488 and '196 patents recite "a payment handler that exposes a common API for interacting with different payment processors," '488 patent claim 1; '196 patent claim 1. The district court found that, like the claims in *Williamson*, the payment-handler terms are "drafted in a format consistent with traditional means-plus function limitations" and "merely replace[] the term 'means' with the [payment-handler terms]." *Claim Construction Order*, 2023 WL 5423082, at *7 (cleaned up) (quoting *Williamson*, 792 F.3d at 1350). It also credited PayPal's expert testimony that the payment-handler terms "provide[ ] no structure beyond a blank box, and critically, that a [person of ordinary skill in the art ("POSA")] would not have understood how to implement the recited functions." *Id.* at *8 (internal citation omitted).

On appeal, Fintiv argues that both the "handler" terms by themselves and the payment-handler terms as a whole identify structure. Appellant's Br. 20–33. We disagree.

The district court correctly analogized "handler" with the nonce term "module," which we have determined was "simply a generic description of software or hardware that performs a specified function." *Claim Construction Order*, 2023 WL 5423082, at *8 (quoting *Williamson*, 792 F.3d at 1350). And in concluding that "handler" does not connote sufficient structure to a POSA, the district court credited technical dictionaries that demonstrated "that the term 'handler' does not impart any structure." *Id.* at *7. As to the prefix "payment," the district court found that this prefix does not impart structure onto "handler" and merely describes the function of the handler: to perform payment functions. *Id.* The facts here are analogous to the facts in *Rain Computing, Inc. v. Samsung Electronics America, Inc.*, where we concluded that "user identification module" invokes § 112 ¶ 6. 989 F.3d 1002, 1006 (Fed. Cir. 2021). The court reasoned that "the prefix 'user identification'" does not "impart structure because it merely describes the function of the module: to identify a user," so "the claim

language fails to provide any structure for performing the claimed functions." *Id.*

Fintiv also contends that extrinsic sources, such as the Internet Open Trading Protocol ("IOTP"), support its argument that the payment-handler terms as a whole connote structure. *See, e.g.*, Appellant's Br. 29–31; Reply Br. 17–20. We disagree. The district court found that the IOTP suggests that the payment-handler terms "can refer to many different entities in a payment system with different structures." *Claim Construction Order*, 2023 WL 5423082, at *7. Thus, on this record, we agree with the district court that "handler" alone and the payment-handler terms as a whole fail to provide any structure for performing the claimed functions. *Cf. Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1348 (Fed. Cir. 2016) ("Irrespective of whether the terms 'symbol' and 'generator' are terms of art in computer science, the combination of the terms as used in the context of the relevant claim language suggests that it is simply an abstraction that describes the function being performed.").

Fintiv next argues that the claims' connecting terms—"that," "operable to," and "configured to"—which appear in the asserted claims are "more often used with structural terms rather than non-structural ones." Appellant's Br. 25; *see also* Reply Br. 2–3. Fintiv cites to four cases that use identical or nearly identical connecting words as the asserted claims to support its argument. *See* Appellant's Br. 25–26 (citing *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1369–70 (Fed. Cir. 2022); *Zeroclick LLC v. Apple Inc.*, 891 F.3d 1003, 1006 (Fed. Cir. 2018); *Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1368 (Fed. Cir. 2003); *Personalized Media Commc'ns, LLC v. ITC*, 161 F.3d 696, 699, 705 (Fed. Cir. 1998)). Fintiv fails to meaningfully explain how the connecting words in these cases that deal with different patents are dispositive here other than to state that these connecting words are identical or nearly identical to the connecting words in the asserted claims. In fact, we

have rejected the argument that the connecting term "configured to" necessarily avoided means-plus-function claiming. *Rain Computing*, 989 F.3d at 1006. Our case law does not provide for a blanket rule that these connecting words (i.e., "that," "operable to," and "configured to") automatically suggest terms are structural. As we have explained, the applicability of § 112 ¶ 6 depends on the specific context of the patent at issue. *Williamson*, 792 F.3d at 1350–51 & n.5; *see also Advanced Ground*, 830 F.3d at 1348 (analyzing whether a claim term is in means-plus-function format by looking to the "combination of the terms *as used in the context of the relevant claim language*" (emphasis added)). The determination of whether the payment-handler terms invoke § 112 ¶ 6 turns on how those terms are used in the asserted patents. None of the cases cited by Fintiv discuss the payment-handler terms, much less in the context of the asserted patents. As with the claims in *Rain Computing*, 989 F.3d at 1006, here, the purely functional claim language reciting that the payment-handler terms are configured or operated to complete an action provides no structure.

Fintiv also argues that our decision in *Dyfan* controls here. Specifically, Fintiv argues that the payment-handler terms are a class of software structures under *Dyfan*. We disagree.

In *Dyfan*, the issue before our court was whether the claim terms "code" and "application" were in means-plus-function format. Because these terms did not include the word "means," there was a presumption that the terms were not in means-plus-function format. We ultimately held that the patent challenger failed to overcome this presumption. 28 F.4th at 1366–68. This court relied on the unrebutted testimony from the patent challenger's own expert testifying that a POSA would have (1) understood the "code" / "application" limitations "connote a class of structures" and (2) known the recited claim functions could be

implemented using "off-the-shelf" code or applications. *Id.* at 1367–68.

Fintiv relies on *Dyfan* to argue that § 112 ¶ 6 does not apply because (1) certain dictionary definitions for "handler" and "service" relate to software and (2) that software is a definite class of structure. But *Dyfan* is distinguishable from the facts here. Unlike in *Dyfan*, where the expert's testimony that the term "code" / "application" connoted software structure to a POSA was unrebutted, here, neither expert testified that the payment-handler terms connoted structure. *See Claim Construction Order*, 2023 WL 5423082, at *8. As used in the claims, the payment-handler terms are no more than a "black box recitation of structure" that can operate as a substitute for "means," *Williamson*, 792 F.3d at 1350, and "a POSA would not have understood how to implement the recited functions," *Claim Construction Order*, 2023 WL 5423082, at *8.

Fintiv next argues that the claim language defines the "inputs, outputs, and operation of the 'payment handler.'" Appellant's Br. 34–40. Fintiv cites to *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), to support its argument, but that case is distinguishable from the facts here. In *Apple*—a pre-*Williamson* case—"the claim language and specification outline[d] the rules that the [claim term] follow[ed]," so the claim language provided sufficiently definite structure and the patent "recite[d] a claim term with a known meaning." *Id.* at 1303. In contrast, here, the claims and specifications, including the figures in the asserted patents, do not provide sufficiently definite structure to the "inputs, outputs, connections, and operation" of the payment-handler terms.[3] In fact, the sole

[3] Fintiv argues that the figures in the asserted patents show "the various process flows in and out of the payment handler and how it fit[s] within the broader system."

textual support in the specifications for the payment-handler terms merely parrots the claim language. *See* '386 patent col. 13 ll. 29–34; '413 patent col. 14 ll. 8–13; '488 patent col. 10 ll. 4–9; '196 patent col. 10 ll. 21–26.

We therefore affirm the district court's conclusion—based on the intrinsic evidence and extrinsic evidence—that the payment-handler terms invoke § 112 ¶ 6.[4]

B

Having determined that the payment-handler terms invoke § 112 ¶ 6, we proceed to the second step of the analysis: identifying the corresponding structure described in the specification. "Structure disclosed in the specification qualifies as corresponding structure if the intrinsic evidence clearly links or associates that structure to the function recited in the claim." *Williamson*, 792 F.3d at 1352 (cleaned up). And "[e]ven if the specification discloses corresponding structure, the disclosure must be of adequate corresponding structure to achieve the claimed function." *Id.* (cleaned up). "If the function is performed by a general-purpose computer or microprocessor, then the second step generally further requires that the specification disclose

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Appellant's Br. 35. PayPal responds that "none of these figures show ***how*** the payment handler 'use[s] APIs of different payment processors' or 'exposes a common API for interacting with different payment processors.'" Appellee's Br. 56 (emphasis in original). We agree with PayPal.

[4] This appeal is not the first instance that we have held a claim term with more than one word to invoke § 112 ¶ 6. *See, e.g.*, *Media Rights*, 800 F.3d at 1371–75 ("compliance mechanism"); *Advanced Ground*, 830 F.3d at 1348 ("symbol generator"); *Diebold Nixdorf, Inc. v. ITC*, 899 F.3d 1291, 1297–302 (Fed. Cir. 2018) ("cheque standby unit"); *Rain Computing*, 989 F.3d at 1005–07 ("user identification module").

the algorithm that the computer performs to accomplish that function." *Rain Computing*, 989 F.3d at 1007 (citation omitted). And finally, the claims are indefinite if the specification fails to disclose adequate corresponding structure to perform the claimed function. *Traxcell Techs., LLC v. Sprint Commc'ns Co.*, 15 F.4th 1121, 1134 (Fed. Cir. 2021) (citing *Williamson*, 792 F.3d at 1351–52).

We agree with the district court that the asserted claims "fail to disclose sufficient structure to perform the functions of 'us[ing] APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors' and 'expos[ing] a common API for interacting with different payment processors.'" *Claim Construction Order*, 2023 WL 5423082, at *9 (alterations in original) (quoting '386 patent claim 1; '488 patent claim 1). In particular, the district court found that the specifications of the asserted patents do not disclose any algorithm to perform the recited function. The court explained that the specifications "merely refer[] to the generic process of translating APIs," and a POSA would not understand where the wrapping of the APIs occur. *Id.* It found that "there is significant ambiguity in the specification," and a POSA "would not understand to what entity the payment handler's 'common API' is exposed." *Id.*

On appeal, Fintiv argues that the asserted patents identify a two-step algorithm for a payment handler: (1) "wrap[s] APIs of different payment processors, such as, for example banks . . ." and (2) "exposes a common API to facilitate interactions with many different kinds of payment processors." Appellant's Br. 45 (cleaned up). We disagree. Fintiv's purported two-step algorithm merely recites the asserted claims' language. The specifications do not provide additional disclosures other than reciting the function of the payment-handler terms using generic terms without providing any details about an algorithm to carry out the functions of using APIs of different payment processors including one or more APIs of banks, credit and

debit cards processors, bill payment processors, and exposing a common API for interacting with different payment processors.[5] We have held that describing "the results of the operation of an unspecified algorithm" is not sufficient to transform the disclosure of a general-purpose computer into the disclosure of sufficient structure to satisfy § 112 ¶ 6. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1335 (Fed. Cir. 2008). Without an algorithm to achieve these functionalities—and, more generally, given the specifications' failure to disclose adequate corresponding structure—we hold the payment-handler terms indefinite.

## CONCLUSION

We have considered Fintiv's remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm.

**AFFIRMED**

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[5] Fintiv also argues that the proper function being performed by the payment-handler terms is "interacting with different payment processors." Reply Br. 21. We disagree. Fintiv's characterization of the claimed functions is too broad and not supported by the claim language, which requires exposing a common API and using APIs of different payment processors.