

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioners,

v.

PROXENSE, LLC,

Patent Owner

IPR2025-00562

U.S. Patent No. 9,049,188 B1

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

No.	Exhibit Description
2001	Memo In Support of Claim Construction Order in <i>Proxense, LLC v. Samsung Electronics, Co., Ltd. et al.</i>

I. INTRODUCTION

Pursuant to 35 U.S.C. § 313 and 37 C.F.R. § 42.107, Patent Owner Proxense LLC (“Proxense”) submits the following Preliminary Response to the Petition for *Inter Partes Review* of claims 1-20 of U.S. Patent No. 9,049,188 B1 (“the 188 Patent”) filed by Petitioner Apple Inc. (“Petitioner” or “Apple”).

Petitioner effectively asks the USPTO (“Office”) to overrule the District Court’s claim construction of “hybrid device.” But not once does Petitioner cite to, or even mention, the District Court’s full construction of “hybrid device.” This intentional omission amounts to deception: an attempt to make the Office unwittingly overrule the District Court. Furthermore, Petitioner fails to provide any justification for asking the Office to take such drastic action. Not once does the Petitioner provide any legal analysis regarding claim construction – let alone identify any legal or factual errors with the District Court’s construction. The Office must not let itself be deceived. Instead, the Office should honor the District Court’s construction, accurately and fully set forth herein, and deny the Petition.

II. CLAIM CONSTRUCTION

A. District Court’s Construction of Hybrid Device

Patent Owner requests that the Office follow the District Court’s construction of two terms:

- (1) “one or more of the integrated RDC and integrated PDK enabling one or more of an application, a function, and a service.” (188 Patent, claim 1); and
- (2) “an enablement signal enabling one or more of an application, a function and a service.” (188 Patent, claim 10).

These terms were construed by the District Court when the broader encompassing term “hybrid device” was construed *See* Ex. 2001, at 25-27. The Court’s Memorandum In Support of Claim Construction Order (Ex. 2001, hereinafter “Memo”) provides the District Court’s ruling on indefiniteness under 35 U.S.C. § 112.

The District Court was asked to determine if the term “hybrid device,” appearing in the preamble of claim 1 and the body of claim 10, rendered the claims as whole indefinite. The defendant in that case, Samsung, “contend[ed] that ‘hybrid device’ is indefinite because ‘because it does not, ‘viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.’” Ex. 2001, at 25. In particular, “Samsung argue[d] that the disclosure in the abstract. does not clarify if a hybrid device is required to be capable of *operating in all three of the modes* (PDK only, RDC only, or PDK and RDC) or can still be a hybrid device if it operates in only a subset of the described modes.” *Id.* Accordingly, the District Court determined whether the claims

were indefinite for failing to sufficiently recite the **required mode of operation** of a “hybrid device.”

“In the face of an allegation of indefiniteness, general principles of claim construction apply.” *Enzo Biochem, Inc. v. Applera Corp.*, 589 F.3d 1325, 1332 (Fed. Cir. 2010) (citing *Young v. Lumenis, Inc.*, 492 F.3d 1336 (Fed. Cir. 2007)). Accordingly, the District Court had to engage in claim construction to determine if the term “hybrid device” was indefinite as Samsung asserted, including determining the required **mode of operation**.

Applying the general principles of claim construction, the District Court concluded,

A POTISA could reasonably ascertain the scope of the claim because the claims explain the required operation of the ‘hybrid device.’ *Claims 1 and 10 of the 188 Patent* and claims 1 and 11 of the 700 Patent state, ‘*one or more of the integrated RDC and integrated PDK enabling one or more an application, a function and a service*. An application, function, or service is ‘*enabled*’ by a PDK when it receives information from a PDK in exchange for an access key. Similarly, an RDC ‘*enable[es]*’ one or more of an application, a function, and a service’ when it forwards such a message to the application, function, or service. The claimed ‘*hybrid device*’ carries out these functions.

Ex. 2001, 26 (emphasis added).

The above construction by the District Court is directed to the same claims at issue in these proceedings – *i.e.*, claims 1 and 10 of the 188 Patent. The construction was offered when “[b]efore the Court [were] the parties’ claim construction briefs” and after “Court held the Markman hearing.” *Id.*, at 1. Furthermore, the “Court provide[d] [the] memorandum in support of its Claim Construction Order issued on January 18, 2022.” *Id.* The Memo is an extension of the Claim Construction Order which provides explanation, context, and support for the earlier issued Claim Construction Order. As such, statements made Memo are claim constructions, and there is no reason the Office should overrule District Court’s construction provided therein.

B. Petitioner’s Deception

Petitioner fails to mention the Memo or the constructions it provides. Instead, Petitioner presents an alternative construction *which contradicts the District Court:*

The claims of the ’188 patent recite a “hybrid device” (e.g., a cell phone) that uses a Personal Digital Key (PDK) in conjunction with a Receiver Decoder Circuit (RDC) to access secure data on the hybrid device. Essentially, *the claimed RDC acts as a digital lock* protecting secured data on a device like a phone, and *the PDK functions as a digital key: when an authorized PDK makes an access request to a corresponding RDC*, the secured data is made available. The claimed hybrid device includes both an internal PDK (key) and an internal RDC (lock), and these integrated components communicate with external PDKs and external RDCs in other devices.

Paper 2, at 1.

As set forth above, Petitioner asserts that “*the PDK functions as a digital key: when an authorized PDK makes an access request to a corresponding RDC.*” But the District Court construed the PDK as operating a lock: “An application, function, or service is ‘*enabled*’ by a PDK when it receives information from a PDK in exchange for an access key.” Ex. 2001, at 26 (emphasis added). Accordingly, the District Court set forth that the PDK provides information “in exchange for an access key.” In providing information in exchange for an “access key,” the PDK is acting as lock opened by the access key provided. As such, the District Court construed the operation a “hybrid device” as including a PDK the functions as a lock, and not a key. However, in complete contradiction to the District Court, Petitioner asks the Office to construe the operation of a hybrid device as including a “*PDK [that] functions as a digital key.*”

Petitioner further asks the Office to overrule the District Court’s construction of “hybrid device” by asserting incompatible role of the RDC. Petitioner asserts “*the claimed RDC acts as a digital lock.*” Yet, the District Court construed the “hybrid device” as including an RDC that “*enable[es]* one or more of an application, a function, and a service’ *when it forwards such a message to the application, function, or service.*” Ex. 2001, at 26 (emphasis added). Accordingly, the District Court construed the operation of the “hybrid device” as including the RDC acting as

a relay between the PDK and the application, function, or service to be enabled. A lock and relay perform completely different functions. Accordingly, Petitioner is asking the Office to overrule the District Court's construction and replace it with something completely different.

The Petition provides *no justification* for why the Office should overrule the District Court. In fact, the Petition fails to provide any claim construction analysis at all. Instead, the Petition asserts that “no specific construction of any claim term is required because the prior art references relied on in this Petition meet or disclose each of the claim terms under any reasonable construction.” Paper 2, at 7. But at no point does the Petition provide the District Court's full construction of “hybrid device” put forth in the Memo. Failing to provide the Office with the District Court's full claim construction, Petitioner asks the Office to unwittingly overrule the District Court with no justification. The Office must not give into this rouse.

III. RESPONSE TO GROUNDS FOR INVALIDITY RAISED

A. GROUND 1 – Claims 1-20 Are Not Rendered Obvious by Giobbi-157, Giobbi-139, and Dua

The Petition fails to demonstrate that the combination of Giobbi ' 157 (U.S. Publication No. 2007/0245157), Giobbi ' 139 (U.S. Publication No. 2004/0255139), and Dua (U.S. Patent No. 9,042,819) discloses “enabling one or more of an application, a function, and a service.” These references thus cannot render the challenged claims invalid and unpatentable.

Independent claims 1 and 10 each recite “enabling one or more of an application, a function, and a service.” The Petition fails to establish Giobbi ’157, Giobbi ’139, or Dua “enables an application, a function, and a service” as that term has been construed by the District Court. Consequently, the Petition fails to establish claims 1 and 10, and the claims dependent thereon, are invalid and unpatentable.

As detailed *supra*, the District Court construed the term “enabled enabling one or more of an application, a function, and a service”:

An application, function, or service is *‘enabled’ by a PDK when it receives information from a PDK in exchange for an access key.* Similarly, *an RDC ‘enable[es] one or more of an application, a function, and a service’ when it forwards such a message to the application, function, or service.* The claimed ‘hybrid device’ carries out these functions.

Ex. 2001 at 26 (emphasis added).

The Petitioner alleges that this element can be found in the authentication process shown in Figure 4 of Giobbi ’157. Petition, at 40-41. The process detailed in Figure 4 of Giobbi ’157 includes sending various messages between a PDK and RDC. However, Giobbi ’157 does not contemplate that the information is received *in exchange for an access key* provided to the PDK.

At most, Giobbi ’157 discloses starting an exchange with an unsecure connection. Giobbi ’157 explains that the process shown in Figure 4 begins “[w]hen

a PDK 102 comes within range of a Reader 108, communication is automatically established 402 between the RDC 304 and the PDK 102 . . . Generally, initial communication between the Reader 108 and the PDK 102 is not encrypted in order to provide faster and more power efficient communication.” Giobbi ’157, ¶ [0059]. After establishing unsecure communication, “[i]n step 404, a device authentication is performed. Here, the Reader 108 establishes if the PDK 102 is a valid device and the PDK 102 establishes if the Reader 108 is valid.” Giobbi ’157, ¶ [0060]. In performing device authentication:

[t]he RDC 304 receives information and analyzes 502 information from the PDK 102; and the PDK 102 receives and analyzes 502 information received from RDC 304. Generally, this initial information is transmitted over a public communication channel in an unencrypted format. Based on this information, each device 102, 304 determines 504 if the other is valid . . . If both the PDK 102 and the RDC 304 are determined by the other to be valid, the Reader 108 requests and receives 506 authentication type information from the PDK 102 indicating the different types of authentication the PDK 102 is capable of satisfying based on the types of profiles the PDK 102 stores . . . If the PDK 102 does have one or more sufficient types of profiles, the devices are valid 510.

Giobbi '157, ¶ [0061]. But nowhere does Giobbi '157 teach or describe that this unsecure exchange of information can be accomplished by providing an access key in exchange for information held locally in the PDK's service blocks as required by the challenged claims.

The second exchange in Giobbi '157 similarly does not disclose providing an access key. After the initial exchange to validate the PDK and RDC,

“[t]he method next determines 410 whether profile authentication is required based on the configuration of the Reader 108, the type of transaction desired or by request of a merchant or other administrator. If the Reader 108 configuration does not require a profile authentication in addition to the PDK authentication, then the Reader 108 proceeds to complete the transaction for the PDK 102 . . . [C]ompleting 416 the transaction includes charging a credit card for a purchase. Alternatively, bank information, debit/check/ATM card information, coupon codes, or any other purchasing means information (typically stored in a profile memory field 232) can be transmitted by the PDK 102 in place of credit card information.”

Giobbi '157, ¶ [0063]. Again, while the PDK may send a message containing various account information, Giobbi '157 fails to describe or otherwise teach unlocking such information from a service block using an access key as required by the challenged claims.

Giobbi '157, therefore, fails to disclose “enabling one or more of an application, a function, and a service” as construed by District Court and required by claims 1 and 10.

As an alternative to Giobbi '157, the Petition relies on Giobbi '139. Petition, at 42. Giobbi '139 merely teaches that when a “user’s physical electronic key [is] within a short range (*e.g.*, few meters) of [a] playing device, the playing device reads [an] activation code carried in a secure radio frequency signal transmitted by the transceiver in the physical key to the transceiver in the [playing] device.” Giobbi '139, ¶ [0036]. However, Giobbi '139 also fails to disclose that the “activation code” is provided in exchange for an access key provided by the playing device. Additionally, as an “activation code is carried in a secure radio frequency signal,” the signal is a message providing information, *i.e.*, the activation code. Consequently, the playing of digital content as detailed by Giobbi '139 fails to disclose the claim limitation “enabling one or more of an application, a function, and a service” under both the Petitioner’s and Patent Owner’s understanding of that term.

As neither Giobbi '157 nor Giobbi '139 disclose “enabling one or more of an application, a function, and a service” as the term has been construed by the District Court, and given that the Petition fails to assert Dua discloses this element, the Petition fails to establish the combination of the combination of Giobbi '157, Giobbi '139, and Dua invalidates claims 1-20.

B. GROUND 2 – Claims 1-7, 9-15, and 17-19 Are not Rendered Obvious by Broadcom

The Petition fails to demonstrate that Broadcom (EP 1 536 306) discloses or renders obvious the claim limitation “enabling one or more of an application, a function, and a service.”

Independent claims 1 and 10 each recite “enabling one or more of an application, a function, and a service.” The Petition fails to establish Broadcom “enables an application, a function, and a service” as that term has been construed by the District Court. Consequently, the Petition fails to establish claims 1 and 10, and the claims dependent thereon, are invalid and unpatentable.

As detailed *supra*, the District Court construed the term “enabled enabling one or more of an application, a function, and a service”:

An application, function, or service is *‘enabled’ by a PDK when it receives information from a PDK in exchange for an access key.* Similarly, *an RDC ‘enable[es] one or more of an application, a function, and a service’ when it forwards such a message to the application, function, or service.* The claimed ‘hybrid device’ carries out these functions.

Ex. 2001 at 26 (emphasis added).

Broadcom discloses accessing services by way of an RFID token freely broadcasting credentials when activated by reader, which are subsequently passed onto a service provider for access. Accordingly, Broadcom at most teaches sending

messages containing credential information from a token activated by proximity, which is distinct from the invention claimed in the 188 Patent, as explained below.

“When a token 316 is relatively close to the RFID reader 306, an RF signal . . . may be received by an antenna 334 and processed by an RF interface 336 in the token 316.” Broadcom, ¶ [0146]. “[T]he received RF signal may be used to power and activate the token 316.” *Id.*, ¶ [0147]. “[A]uthentication information such as network authentication credentials, passwords and/or certificates may be stored in a data memory . . . on the token 316.” *Id.*, ¶ [0148]. “When the token 316 is activated the RF interface may generate an RFID signal that is broadcasted by the antenna 334. Circuitry in the token 316 may be configured to modulate the RFID signal so that it includes some or all of the information stored on the token 316.” *Id.*, ¶ [0149]. Broadcom’s method of providing access to a service, accordingly, begins with a token sending a message containing authentication information. However, as the message is the result of the token being powered by an RF signal, the first message lacks information received from a token in exchange for an access key provided to the token.

Notably, *no key is provided* in exchange for the information. “[T]he RFID reader 306 that extracts the information from the RFID signal 330 may be located within an integrated circuit . . . [T]he integrated circuit 312 may include a cryptographic processor 308 that encrypts the information.” *Id.*, ¶ [0150]. “[A]fter

the information is signed by a cryptographic processor 308, the service access processor 310 sends the signed information to the service processor 324.” *Id.*, ¶ [0150]. “The service processor 324 then sends the received information to the cryptographic processor 322 for decryption . . . The service processor then verifies that the received information indicates that the user is authorized to access the requested service.” *Id.*, ¶ [0153]. “[T]he service processor 324 may then provide access to the requested service.” *Id.*, ¶ [0154]. After receiving the information, the reader encrypts it and forwards it along to a service provider. While decrypting the information may entail the use of a key, the service provider’s key is used *after* the information has been received. Consequently, the information is not received in exchange for a key provided to the token, as required by the claims of the 188 Patent, but rather the key is used to read information that has already been received. Furthermore, the key is provided to the service provider to be enabled rather than by the service provider to be enabled. The message between the reader and the service provider, therefore, *lacks information* from the token received in exchange for an access key provided to the token by the application, function or service to be enabled, as required by the challenged claims. As a result, the Broadcom messages between token and reader and reader and service provider are not “enabling one or more of an application, a function, and a service” as construed by the District Court.

As Broadcom fails to disclose “enabling one or more of an application, a function, and a service” as the term has been construed by the District Court, the Petition fails to establish that Broadcom invalidates claims 1-7, 9-15, and 17-19.

C. GROUND 3 – Claims 8, 16, and 19-20 Are Not Rendered Obvious by Broadcom and Giobbi-157

As noted *supra* with respect to Ground 1, the Petition fails to establish that Giobbi ‘157 discloses all the elements of claims 1-20. Additionally, as noted *supra* with respect to Ground 2, the Petition has not established Broadcom discloses all elements of the challenged independent claims 1 and 10. Accordingly, because elements of the independent claims are not met, the Petition fails to establish that Broadcom or Giobbi ‘157 or a combination thereof invalidate claims 8, 16, and 19-20.

IV. CONCLUSION

The Petition fails to demonstrate the claims as construed by the District Court are obvious. Rather, the Petition asks the Office to unwittingly overrule the District Court’s construction, without providing any justification for doing so or even informing the Office of the District Court’s construction. The Office must not let itself be deceived. Rather, the Office should honor the District Court’s construction and deny the Petition.

Dated: July 11, 2025

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CERTIFICATION OF WORD COUNT UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner Preliminary Response (excluding the table of contents, certificate of service, word count, or listing of exhibits) total 3,276 words.

Dated: July 11, 2025

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6(e)

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that the Patent Owner's Preliminary Response was served on July 11, 2025, by e-mailing copies to the e-mail addresses provided by Petitioner in their Petition.

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