United States Court of Appeals for the Federal Circuit

ANCORA TECHNOLOGIES, INC.,
Appellant

v.

**ROKU, INC., VIZIO, INC., NINTENDO CO., LTD.,
NINTENDO OF AMERICA INC.,**
Appellees

2023-1674, 2023-1701

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2021-01338, IPR2021-01406.

Decided: June 16, 2025

STEVEN M. SEIGEL, Susman Godfrey LLP, Seattle, WA, argued for appellant. Also represented by ANDRES HEALY; ALEXANDRA GISELLE WHITE, Houston, TX.

ANDREW DUFRESNE, Perkins Coie LLP, Madison, WI, argued for all appellees. Appellees Nintendo Co., Ltd., Nintendo of America Inc. also represented by KYLE R. CANAVERA, San Diego, CA.

RICHARD CRUDO, Sterne Kessler Goldstein & Fox

PLLC, Washington, DC, for appellees Roku, Inc., VIZIO, Inc. Also represented by LESTIN L. KENTON, JR.

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Before LOURIE, REYNA, and HUGHES, *Circuit Judges*.

PER CURIAM.

Ancora Technologies, Inc. appeals two final written decisions of the Patent Trial and Appeal Board concluding that various claims of U.S. Patent No. 6,411,941 are unpatentable as obvious. Because the Board erred in applying our precedent on nexus to the license evidence offered as objective indicia of nonobviousness, we vacate and remand.

BACKGROUND

I.

Ancora Technologies, Inc. ("Ancora") owns U.S. Patent No. 6,411,941 ("'941 patent"). The '941 patent generally relates to the restriction of unauthorized use of licensed software programs on computers. '941 patent, Abstract. Specifically, the '941 patent relates to software based products that prevent hackers from copying a software program that was licensed for use on a computer. *Id*. at 1:21–35. The patent aims to avoid reliance on a computer's "volatile memory media," which are subject to "physical instabilities." *Id*. at 1:24–26. The patent describes a method of restricting use of a licensed software program on a computer that has at least two "non-volatile memory areas" and one volatile area. *Id*. at 2:62–3:3. In a "non-limiting, preferred embodiment," the non-volatile areas are inside a "Basic Input / Output System" ("BIOS") module. *Id*. at 4:49–54. A BIOS is built into a computer and allows it to start up, in contrast to an operating system ("OS"), *see* J.A. 1075, which runs software once the computer is started.

The method described in claim 1 of the patent includes two features related to making a licensed program secure

using the non-volatile area of a BIOS. First, a "key" is the computer's unique identification code embedded during manufacture in the "read-only memory" ("ROM") section of the BIOS and stored in a non-volatile part of the BIOS where it cannot be erased or modified. *Id.* at 1:42–52. Second, a "verification structure" indicates that a program is licensed to run on the computer and is located in a second non-volatile area of the BIOS where, unlike in the first area where the key is stored, data can be erased or modified (such as in the computer's "electrically erasable programmable read-only memory," or "EEPROM," section). *Id.* at 1:59–2:9. The verification structure includes a "license record," which is created as part of the process of creating the verification structure. *Id.* at 6:18–27, 5:13–16. The license record is an encrypted code stored in the second non-volatile section of the BIOS (such as the EEPROM), so that the encrypted code *can* be erased or modified. *Id.* at 1:53–58.

The method described in claim 1 has four key steps. First, the method selects a program in the computer's volatile memory area (such as the internal "random access memory" or "RAM"). *Id.* at 2:66–67, 5:15–16. Second, the method sets up a verification structure in the non-volatile memory areas. *Id.* at 2:67–3:1. At this second step, the method uses an "agent" to set up the verification structure in an erasable, non-volatile memory area (such as the EEPROM). *Id.* at claim 1. Third, the method uses that structure to verify the program. *Id.* at 3:1–2. Fourth, based on the verification, the method acts on the program. *Id.* at 3:2–3.

At issue are claims 1–3, 6–14, and 16 of the '941 patent. Claim 1 is an independent claim; the remaining claims directly or indirectly depend from claim 1. Claim 1 reads:

> **1.** A method of restricting software operation within a license for use with a computer including an erasable, non-volatile memory area of a BIOS of

the computer, and a volatile memory area; the method comprising the steps of:

selecting a program residing in the volatile memory,

using an *agent* to set up a verification structure in the erasable, non-volatile memory of the BIOS, the verification structure accommodating data that includes at least one license record,

verifying the program using at least the verification structure from the erasable non-volatile memory of the BIOS, and

acting on the program according to the verification.

'941 patent, claim 1 (emphasis added).

II.

A. PROSECUTION HISTORY

During prosecution, the examiner rejected an earlier version of claim 1 for lack of adequate written description and lack of enablement under 35 U.S.C. § 112, because the application did not teach either the device needed to edit an EEPROM or how the system would handle the complex processing required to write and erase data. J.A. 2934–35. The examiner also rejected claims 2–19 because they depend from claim 1. J.A. 2935. In response, Ancora amended claim 1 to add an "agent" that sets up the "verification structure in the erasable, non-volatile memory of the BIOS" (e.g., an EEPROM). J.A. 12953, 2956. As amended, the limitation reads: "using an *agent* to set up a verification structure in the erasable, non-volatile memory of the BIOS, the verification structure accommodating data that includes at least one license record" ("'agent' limitation"). J.A. 2956 (emphasis added). The examiner then rejected all pending claims for obviousness based on certain prior art references. J.A. 2968–71. Ancora replied, arguing that these references "do not teach or suggest, among other

things, storing a verification structure, such as software license information, in the BIOS of a computer." J.A. 2977.

The examiner later allowed Ancora's amended claims, explaining, in part, that the prior art does "not teach licensed programs running at the OS level," where those programs "interact[] with a program verification structure stored in the BIOS" for the purpose of "verify[ing] the program using the verification structure." J.A. 2988. The examiner also explained that the invention "overcomes" the fact that a BIOS is "not setup [sic] to manage a software license verification structure." J.A. 2988. According to the examiner, the invention overcomes this problem in a BIOS by "using an *agent* to set up a verification structure in the erasable, non-volatile memory of the BIOS." J.A. 2988 (emphasis added).

B. PROCEDURAL HISTORY

In 2021, Nintendo Co., Ltd. and Nintendo of America, Inc. (collectively, "Nintendo") and Roku, Inc. and VIZIO, Inc. (collectively, "Roku") filed petitions for *inter partes review* ("IPR") of the '941 patent. *See* J.A. 163–240, 4575–654. In 2023, the Board issued two final written decisions determining that claims 1–3, 6–14, and 16 are unpatentable as obvious over Hellman,[1] Chou,[2] and a third prior art reference that is not at issue on appeal. *Nintendo Co., Ltd. v. Ancora Techs., Inc.*, No. IPR2021-01338 (P.T.A.B. Jan. 25, 2023) ("*Nintendo Decision*"), J.A. 1–54; *Roku, Inc. v. Ancora Techs., Inc.*, No. IPR2021-01406 (P.T.A.B. Feb. 15, 2023) ("*Roku Decision*"), J.A. 55–111.

Hellman discloses a method and apparatus for authorizing a "base unit" to use a "software package" a "specific number of times." Hellman, 4:37–40. Relevant to this appeal, the base unit has a component called a "one-way hash

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[1]   U.S. Patent No. 4,658,093 ("Hellman").
[2]   U.S. Patent No. 5,892,906 ("Chou").

function generator." *Id*. at 6:31–61. Generally, a hash function converts input data into a string of numbers with a fixed length, a "hash value." Here, the hash function generator receives a signal from outside the base unit that represents the software package, then converts that signal into "hash value H." *Id*. The generator next sends a signal representing hash value H to another component in the base unit, the "update unit." *Id*. at 9:64–10:1. The update unit uses the value H as an "address" to a third unit, the "non-volatile memory." *Id*. at 10:1–14, 10:39–44.

The update unit sends the signal representing value H to the non-volatile memory, which uses value H to calculate "M," the number of available uses of the software package. *Id*. at 10:40–43. The non-volatile memory then sends back to the update unit a signal representing M. *Id*. If M is greater than 0, the update unit sends a control signal to a fourth unit, the "switch," which sends a signal to activate a fifth unit, the "software player," to allow the player to use the package. *Id*. at 10:44–49. The update unit also sends a signal to the non-volatile memory to reduce M by 1. *Id*. If M is 0, the update unit does not send any signals, either to the non-volatile memory to reduce M, or to the switch to activate the software player—thus preventing the user from using the software package. *Id*. at 10:50–54. In both IPRs, petitioners acknowledged that Hellman does not directly disclose the use of memory in a BIOS. J.A. 200, 4610.

Chou discloses an apparatus and method to "discourage" computer theft. Chou, Abstract. Relevant to this appeal, Chou discloses a security routine stored in a BIOS. *Id*. The routine verifies a password entered by a user or a number read from an externally connected memory device. *Id*. at 2:16–32.

In each decision, the Board construed the claim term "agent" in the "agent" limitation as "a software program or routine." *Nintendo Decision*, J.A. 7–19; *Roku Decision*,

J.A. 62–75. Based on this construction, the Board determined that the challenged claims are unpatentable as obvious. *Nintendo Decision*, J.A. 25–52; *Roku Decision*, J.A. 81–109.

Ancora appeals both decisions, which are now consolidated.   We   have   jurisdiction   under   28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. § 141(c).

DISCUSSION

Ancora raises three issues on appeal. First, Ancora argues that the Board erred in construing the claim term "agent." Second, Ancora argues that, even if the Board correctly construed "agent," the Board nonetheless erred in determining obviousness under 35 U.S.C. § 103 based on a combination of Hellman and Chou. Third, Ancora argues that the Board erred in its analysis of secondary considerations of nonobviousness.

We review the Board's legal determinations de novo and its factual determinations for substantial evidence. *In re NuVasive, Inc.*, 842 F.3d 1376, 1379 (Fed. Cir. 2016). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

Claim construction is a question of law with underlying questions of fact. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1278 (Fed. Cir. 2017). We review de novo the Board's ultimate claim construction and its supporting determinations that are based on intrinsic evidence. *Personalized Media Commc'ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1339 (Fed. Cir. 2020).

Obviousness is a question of law based on underlying findings of fact, such as the scope and content of the prior art, whether a skilled artisan would have been motivated to combine the prior art to achieve the claimed invention,

and the presence of objective indicia of nonobviousness. *In re NuVasive*, 842 F.3d at 1381–82.

I.

Ancora argues that the Board erred in construing "agent" as "a software program or routine," with no further limitations. Appellant Br. 16–37. According to Ancora, the proper construction is "a software program or routine" limited to use at the OS-level and that excludes hardware (i.e., limited to use in software). *Id.* at 19–33. We disagree with Ancora's argument.

The Board first determined that intrinsic evidence provides no definition of or disavowal of "agent" as limited to use at the OS-level or in software only. *Nintendo Decision*, J.A. 11–19; *Roku Decision*, J.A. 67–75. Absent lexicography or disavowal, the Board relied on extrinsic evidence to determine that the plain and ordinary meaning of "agent" is "a software program or routine" without either limitation. *Nintendo Decision*, J.A. 10–11 (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *Roku Decision*, J.A. 65–67 (same). We address Ancora's challenges on each limitation in turn.

Ancora argues that intrinsic evidence requires construing "agent" as limited to use in software only. Appellant Br. 29–33. However, neither the patent nor prosecution history provide a "clear and unmistakable disclaimer" that "agent" must be limited to exclude hardware. *Mass. Inst. of Tech. v. Shire Pharms., Inc.*, 839 F.3d 1111, 1119 (Fed. Cir. 2016) (quotations omitted); *see Nintendo Decision*, J.A. 11; *Roku Decision*, J.A. 67. The patent does not define "agent." *See Nintendo Decision*, J.A. 11–12; *Roku Decision*, J.A. 67. We recognize that, at several points, the specification addresses hardware. For example, the specification states that hardware-based products that "access[] a dongle that is coupled e.g. to the parallel port of" the personal computer are "expensive, inconvenient, and not particularly suitable for software that may be sold by

downloading (e.g. over the internet)." '941 patent, 1:19–32. Statements like these merely assert problems in both software- and hardware-based products; they do not provide that, to overcome these problems, an "agent" must be software *only*. *See Nintendo Decision*, J.A. 17–18; *Roku Decision*, J.A. 73.

Likewise, the prosecution history does not limit "agent" to software only. *See Nintendo Decision*, J.A. 16–19; *Roku Decision*, J.A. 71–75. Ancora argues disclaimer based on statements about hardware in the prosecution history. Appellant Br. 30–33 (citing J.A. 2920–22, 2934–35). However, these statements, like those in the specification addressed above, simply describe problems in both software- and hardware-based products; the statements do not provide that, to overcome these problems, an "agent" must be software *only*.

Ancora further argues that the Board's determination that the computer industry understood the plain meaning of "agent" as "a software program or routine" without being limited to software only is unsupported by substantial evidence. *Id.* at 33–35 (citing *Nintendo Decision*, J.A. 10). The Board, however, cited extensive evidence in support of its determination that the plain meaning of "agent" is not limited to software only. The Board relied on Ancora's "acknowledg[ments]" that a prior district court decision on the '941 patent held that "the plain and ordinary meaning [of] 'agent' is 'a software program or routine,'" without being limited to software only. *Nintendo Decision*, J.A. 10 (quoting J.A. 505); *Roku Decision*, J.A. 73–74 (quoting J.A. 4860). The Board also relied on the Oxford Dictionary of Computing's definition of "agent," which states that an agent *"may be software, hardware, or both." Nintendo Decision*, J.A. 18–19 (quoting J.A. 1691) (Board's emphasis); *Roku Decision*, J.A. 73–74 (same). Similarly, the Board relied on Ancora's expert's testimony that "a mixed software/hardware entity does have a software component." *Nintendo Decision*, J.A. 18–19 (quoting J.A. 1600)

(quotations omitted); *Roku Decision*, J.A. 74 (same). Lastly, the Board relied on a declaration from another of Ancora's experts that "'agent' is not limited to a pure software implementation" and "is generally understood in the art to encompass both software and hardware." *Roku Decision*, J.A. 73–75 (citing J.A. 1484); *see also Nintendo Decision*, J.A. 10 (citing, inter alia, J.A. 2727). Ancora's acknowledgements, the dictionary definition, the expert testimony, and the expert declaration all provide substantial evidence supporting the Board's finding that its construction is consistent with the computer industry's understanding at the time.

Ancora also argues that intrinsic evidence requires construing "agent" as limited to use at the OS-level. Appellant Br. 19–29. However, neither the patent nor prosecution history provide a "clear and unmistakable disclaimer" that "agent" must be limited to use at the OS-level. *Mass. Inst. of Tech.*, 839 F.3d at 1119 (quotations omitted); *see Nintendo Decision*, J.A. 11; *Roku Decision*, J.A. 67. As addressed above, the patent does not define "agent." *See Nintendo Decision*, J.A. 11–12; *Roku Decision*, J.A. 67. Moreover, the prosecution history does not show that Ancora limited "agent" to use at the OS-level. *See Nintendo Decision*, J.A. 8–16; *Roku Decision*, J.A. 62–71. Ancora highlights the examiner's statement in the Notice of Allowance that "'licensed programs' interacting with the verification structure are 'running at the OS level.'" J.A. 15; *see* Appellant Br. 23–24 (excerpting this quote). Yet this statement does not indicate that the agent, when setting up the verification structure, must *also* run at the OS-level. Similarly, Ancora repeatedly excerpts a sentence from its remarks in an important amendment to show that it defined "agent" as operating at the OS-level. Appellant Br. 20–24 (citing J.A. 2979). However, the full sentence from those remarks is: "Software license management applications, such as the one of the present invention, are operating system (OS) level programs." J.A. 2979. Here,

those software license management applications are not necessarily agents. Rather, they are the applications whose licenses an agent has helped secure using the method described in the claims. Again, simply because an application runs at the OS-level does not mean that the agent also runs at the OS-level.[3]

Ancora further argues that the Board's finding that the computer industry understood the plain meaning of "agent" as "a software program or routine" without being limited to use at the OS-level is unsupported by substantial evidence. Appellant Br. 33–35 (citing *Nintendo Decision*, J.A. 10). The Board, however, cited evidence in support of its determination that the plain meaning of "agent" is not limited to use at the OS-level. The Board relied on Ancora's "acknowledg[ments]" that a prior district court decision on the '941 patent held that "the plain and ordinary meaning [of] 'agent' is 'a software program or routine,'" without further limiting "agent" to use at the OS-level. *Nintendo Decision*, J.A. 10 (quoting J.A. 505); *Roku Decision*, J.A. 65–66 (quoting J.A. 4860). Ancora's acknowledgements are substantial evidence supporting the Board's conclusion that the computer industry understood "agent" as not limited to use at the OS-level.

For the foregoing reasons, we conclude that the Board correctly construed "agent" as "a software program or

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[3] Ancora argues that the prosecution history may "not rise to the level of unmistakable disavowal" but nonetheless "inform[s] the claim construction" due to "repeated and consistent remarks during prosecution." Appellant Br. 19–20 (quoting *Personalized Media Comm'cns*, 952 F.3d at 1345 (citation omitted)) (quotations omitted). Yet, for the reasons provided above, the statements that Ancora argues are "repeated and consistent remarks" do not establish that, during prosecution, Ancora limited "agent" to use at the OS-level.

routine," without limiting it to use at the OS-level or in software.

II.

Ancora argues that, even under the Board's construction of "agent," the Board erred in determining that the "agent" limitation was obvious based on a combination of Hellman and Chou. Appellant Br. 38–63. Ancora asserts three errors in the Board's analysis of prima facie obviousness. We address each in turn.

First, Ancora argues that the Board erred in determining claim 1 is obvious in light of the Hellman/Chou combination because this combination is inoperable. Appellant Br. 43–44. According to Ancora, this combination is inoperable because it uses Hellman's non-volatile memory (for storing M values) to store Chou's BIOS, thus "creat[ing] the very risk" that the '941 patent aims to prevent: By using memory in a BIOS to store non-BIOS data, the combination risks "inadvertently" changing data in the BIOS—data needed to operate a computer. *Id.* However, Ancora never raised this argument in its response to either petition. *See* J.A. 463–546, 4818–4955. Thus, we conclude that Ancora waived its inoperability argument. *See Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365, 1371–72 (Fed. Cir. 2023).

Second, Ancora argues that the Board's determination of obviousness based on the Hellman/Chou combination was erroneous because a person of ordinary skill in the art would not be motivated to combine their teachings, as they are redundant. Appellant Br. 44–46. Specifically, Ancora argues that it is redundant for Chou to contribute a BIOS to Hellman's computer, because Hellman's computer already contains a BIOS. *Id.* However, Ancora misreads the Board's analysis: The Board found that Chou's contribution to the combination was not merely to add a BIOS to Hellman's computer, but, more specifically, to motivate a person of ordinary skill in the art "to store Hellman's license

information in the BIOS EEPROM, in order to discourage users from tampering with the license information and to provide extra protection to the sensitive information." *Nintendo Decision*, J.A. 29 (quoting expert testimony) (quotations omitted); *see also Roku Decision*, J.A. 84. To reach this conclusion, the Board relied on expert testimony. *Id.* The Board's finding was thus supported by substantial evidence.

Third, Ancora argues that the Board's determination of obviousness based on the Hellman/Chou combination was erroneous because Hellman's memory address H is not a "verification structure." Appellant Br. 46–49. According to Ancora, Hellman's address H "merely identifies a location" and "*is not a structure*," and Hellman's alleged "agent," the update unit, never sets up the address, as is required of the claimed "agent." *Id.* (emphasis in original). Ancora again misreads the Board's decision: The Board did not identify Hellman's address H as the verification structure. Rather, the Board agreed with petitioners that testimony showed that the claimed verification structure corresponded to Hellman's *method* of storing M values at address H. *Nintendo Decision*, J.A. 35, 37; *Roku Decision*, J.A. 93–94. This testimony was substantial evidence supporting the Board's finding that Hellman taught the claimed verification structure.

For the foregoing reasons, we agree with what is in effect a prima facie determination of obviousness based on the Hellman/Chou combination.

III.

The Board further found that Ancora failed to establish a sufficient nexus between the claimed invention and evidence of two objective indicia of nonobviousness: industry praise and licensing. *Nintendo Decision*, J.A. 41–51; *Roku Decision*, J.A. 99–108. Ancora argues that the Board's findings that Ancora failed to show nexus on both indicia constituted legal error or were otherwise unsupported by

substantial evidence. Appellant Br. 52–63. For the following reasons, we disagree that the Board erred regarding industry praise, but we agree that the Board erred regarding licensing.

"[T]o be accorded substantial weight in the obviousness analysis, the evidence of secondary considerations must have a 'nexus' to the claims, *i.e.*, there must be a legally and factually sufficient connection between the evidence and the patented invention." *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) (citations and quotations omitted). The burden is on the patent owner to establish a nexus. *Id.* The patent owner is entitled to a rebuttable presumption of nexus "[i]f the asserted objective evidence is tied to a specific product and that product embodies the claimed features, and is co-extensive with them." *Id.* at 1332–33 (citations and quotations omitted). There is no presumption of nexus if "the patented invention is only a small component of the product tied to the objective evidence." *Id.* at 1333.

Concerning industry praise, the Board considered Ancora's evidence of a "joint press release" from American Megatrends Inc. ("AMI") and Ancora that directly named the '941 patent, and an agreement in which AMI would offer products using the patent. *Nintendo Decision*, J.A. 43–46 (citing J.A. 4120–35); *Roku Decision*, J.A. 101–03 (same). The Board found that the praise in the press release and agreement was directed "more broadly to the '941 patent itself," not specifically to "*the challenged claims*." *Nintendo Decision*, J.A. 44 (Board's emphasis); *Roku Decision*, J.A. 102 (same).[4]

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[4]   The press release and agreement only refer to Ancora "technology" defined broadly as the '941 patent. *See*, e.g., J.A. 4120 (the press release addressing "technology (as

Ancora argues that the Board erred in finding that Ancora failed to show that the press release and agreement with AMI had a nexus to the challenged claims. Appellant Br. 52 (citing *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1053 (Fed. Cir. 2016)). We disagree. The AMI press release and agreement were directed to commercialization plans for "BIOS-based security *products*," *Nintendo Decision*, J.A. 44 (emphasis added), and the Board did not clearly err in finding that Ancora did not link up those products to the challenged claims. It was not error for the Board to require that the AMI press release and agreement have a nexus to the challenged claims as opposed to the patent as a whole.

Concerning licensing, the Board found that Ancora failed to show a nexus between the challenged claims and two licenses that Ancora entered into with other parties[5] during settlements in other cases. *Nintendo Decision*, J.A. 46–51; *Roku Decision*, J.A. 104–08. Specifically, the Board found Ancora "d[id] not establish whether these licenses resulted directly from the unique characteristics of the claimed subject matter of the '941 patent." *Nintendo Decision*, J.A. 48. The Board also declined to consider a third license, which Ancora entered into with another party

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described in US Patent 6,411,941)"), 4125–26 (the agreement addressing "Ancora Technology," defined as "Technology described in U.S. Patent 6,411,941").

[5]   We are precluded from fully reciting all the facts in the record concerning who took licenses under the '941 patent and how much was paid in royalties under those licenses. That material is labelled confidential, and we are bound to respect that confidentiality as long as what is so labelled relates to genuine business information of interest to competitors. That is so here. Suffice it to say that the licensees are very substantial companies and the royalties they paid were also very substantial.

during settlement, because Ancora failed to include it in its response. *Nintendo Decision*, J.A. 48 n.4; *Roku Decision*, J.A. 106 n.4. Still, the Board found that it would have treated the third license "similarly" to the second license. *Id.*

Ancora argues that the Board's finding that Ancora failed to show that any of the licenses had a nexus to the claimed invention rested on legal error and was unsupported by substantial evidence. Appellant Br. 55–59. According to Ancora, the record evidence was sufficient to show a nexus between the identified licenses and the claimed invention because the evidence reflected that the licenses were directed to the '941 patent, were all entered into near the end of litigation involving the same claims and prior art as at issue in this case, and were for "payments [that] far exceeded the cost of litigation." *Id.* at 56. We agree that the Board erred in its nexus analysis of the license evidence.

The Board applied a more exacting nexus standard than our case law requires for license evidence. Unlike products, which may incorporate numerous features beyond those claimed or described in a patent and therefore may require careful parsing to establish a nexus, actual licenses to the subject patent do not demand the same, as they are, by their nature, directly tied to the patented technology. *See LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012) ("Actual licenses to the patented technology are highly probative . . . because such actual licenses most clearly reflect the economic value of the patented technology in the marketplace.").

Licenses to the challenged patent then, unlike products or other forms of objective evidence of nonobviousness, do not require a nexus with respect to the specific claims at issue, nor does our nexus law require that a particular patent be the only patent being licensed or the sole motivation for entering into a license. *See Institut Pasteur &*

Universite Pierre Et Marie Curie v. Focarino, 738 F.3d 1337, 1347 (Fed. Cir. 2013) (holding that requiring a showing that "third parties specifically licensed the patent family to gain access to the subject matter *claimed* in [a specific] patent, rather than other technology *described* in the [specific] patent but not claimed or claimed in related patents" is more than is required for the nexus analysis, because "that theoretical possibility does not undermine the strong probative value of the licensing of the [specific] patent"). In *Institut*, we reversed the Board's obviousness determination at least in part because "the Board too finely parsed [the patent owner's] licensing activities." *Id.*; *see also Impax Lab'ys Inc. v. Lannett Holdings Inc.*, 893 F.3d 1372, 1381 (Fed. Cir. 2018) (affirming the district court's finding that although a "2012 agreement . . . related to the various formulation patents . . . a portion of the $130 million had to be based on expected profits from [two specific patents]").

Similarly, here, the Board too finely parsed the patent owner's licensing activities. Regarding the first license, the '941 patent was the only patent identified by patent number in the license agreement, J.A. 4181, but the Board reasoned that because "large portions of the license are redacted," including all of Exhibit B, "it is impossible for [the Board] to discern *what was licensed* and on what terms precisely." *Nintendo Decision*, J.A. 48–49 (emphasis added). That is too strict a requirement. Clearly, the '941 patent was the subject of the license. *See* J.A. 4181–82 ("Ancora . . . grants . . . [a] license under the Ancora Patents" and the "Ancora Patents" are defined in a manner that only recites the '941 patent by patent number). The same can be said for the Board's treatment of the second and third licenses, which also only specifically identify the '941 patent by U.S. patent number on the face of the agreements. *See* J.A. 4141, 2070.

Furthermore, the settlements resulting in licenses were reached, in the respective cases, after four years of

litigation, within a month of trial, and one day before trial. Appellant Br. 56. The license payments also far exceeded the cost of litigation, and the defendants were fully aware of the relevant prior art. *Id.* at 56–59. And while our case law does not require a parsing of specific claims for licenses, Ancora correctly notes that "licensing the '941 patent necessarily conveys a right to all of the challenged claims, including claim 1, whose limitations are incorporated into every claim of the patent." *Id.* at 60. That evidence supports a nexus finding.

Nonetheless, the Board found various deficiencies in the evidence provided to show a nexus between the subject matter of the licensed patent and the amounts paid in royalties. The Board stated, "it is difficult to assess whether the license[s] represented a business decision based on magnitude of the potential risk or an acquiescence to the strength of the '941 patent." *Nintendo Decision*, J.A. 49. We fail to see the difference. They amount to the same thing, a considered reluctance to run the risk of larger financial consequences from infringement. Moreover, while it is true that it is the claims that define what a patent covers, that which is disclosed could be the subject of a separate patent, such that a licensee might consider it prudent to take a license under both patents. The reverse is not true in the context of nexus findings; that is, the fact that a license concerns rights to more than one patent does not detract from the fact that each patent is a subject of the license.

Insofar as the Board sought information about "what the potential exposure was," i.e., a showing of damages, that confuses damages for litigation costs as the appropriate comparator for evaluating the significance of the magnitude of licensing payments. *Nintendo Decision*, J.A. 49. Aside from the fact that "how much [the patent owner] was demanding in damages" would be pre-trial speculation on behalf of one party to that litigation, damages figures are a function of an infringer's *usage*, not a patent's strength.

See 35 U.S.C. § 284 (providing that "the court shall award the claimant damages . . . in no event less than a reasonable royalty for the *use made* of the invention *by the infringer*" (emphases added)). A comparison of a license figure to a prospective damage award is therefore an inappropriate determinant of patent strength.

Nexus is indeed important in evaluating secondary considerations to ensure that factors that are advanced to show that an invention would not have been considered obvious at the relevant time period truly related to what is claimed. But, when it comes to licenses, clear evidence that substantial license fees were paid for licenses to a specific patent late in a litigation should be given the significance that their magnitude deserves. And while "it is often cheaper to take licenses than to defend infringement suits," *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004) (quotations omitted), that is certainly not the case here.

Additionally, not only did the Board apply an improperly heightened nexus standard, but it also failed to evaluate the nexus issue by misreading the first license. The Board stated that "Exhibit B . . . *lists what patents* and patent applications *were licensed.*" *Nintendo Decision*, J.A. 48 (emphasis added). That is not accurate. Rather, the license explains what was licensed: the '941 patent and other Ancora controlled patents. J.A. 4181–82. The license also explains what was not licensed: the "Jobaline Patents . . . listed in Exhibit B," because those patents "are not considered Ancora patents under this Agreement." *Id.* Exhibit B therefore contains patents that are *not* licensed under this agreement, contrary to the Board's statement. The Board's misreading, then, cannot serve as substantial evidence supporting its finding that there was no way to determine what was licensed. Again, the '941 patent was the subject of the license. *See* J.A. 4181–82. That other patents may have also been part of the license does not detract from the nexus inquiry. These licenses, taken by

substantial parties paying substantial royalties to secure the right to practice the '941 patent, should have been given more, if not controlling, weight in the Board's obviousness determination.   On remand, the Board should evaluate the nexus issue regarding these licenses and then weigh such evidence against what was in effect its prima facie case of obviousness.

The Board further noted, but did not evaluate, petitioners' arguments citing Ancora's settlements with other companies in which Ancora licensed the '941 patent for much less than anticipated litigation costs. *See Nintendo Decision*, J.A. 47–48, 105. While Ancora tries to argue that such low-value licenses are "'of little significance' in the obviousness analysis," Appellant Br. 61 (citing *Iron Grip*, 392 F.3d at 1324), Roku properly notes that the *Iron Grip* panel declined to credit low-value licenses not because of their value, but because of the failure of the patentee to provide adequate evidence that the licenses had a nexus to the patents at issue. Appellee Br. 62–63 (citing 392 F.3d at 1324). On remand, the Board should also consider the nexus issue and the probative value of these licenses and weigh that against the licenses produced by Ancora in support of its argument of commercial success as objective indicia of nonobviousness.

For the foregoing reasons, we conclude that the Board's findings regarding the license evidence offered as objective indicia of nonobviousness constitute legal error and were not supported by substantial evidence.

CONCLUSION

The Board did not err in its claim construction analysis and substantial evidence supports its prima facie case of obviousness. However, because the Board erred in its secondary consideration analysis, we vacate and remand for the Board to reconsider the nexus issue as it pertains to the licenses offered as objective indicia of nonobviousness.

VACATED AND REMANDED

Costs

No costs.