NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

LENOVO HOLDING COMPANY, INC., LENOVO (UNITED STATES) INC., MOTOROLA MOBILITY LLC,
Appellants

v.

DODOTS LICENSING SOLUTIONS LLC,
Appellee

2021-1247, 2021-1521, 2021-1580

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2019-00988, IPR2019-01278, IPR2019-01279.

Decided: December 8, 2021

MITCHELL G. STOCKWELL, Kilpatrick Townsend & Stockton LLP, Atlanta, GA, argued for appellants. Also represented by DAVID A. REED; JOHN C. ALEMANNI, Raleigh, NC; STEVEN MOORE, San Francisco, CA.

PERRY GOLDBERG, Progress LLP, Los Angeles, CA, argued for appellee.

Before NEWMAN, DYK, and REYNA, *Circuit Judges*.

DYK, *Circuit Judge*.

Lenovo Holding Company, Inc. ("Lenovo") petitioned for *inter partes* review of claims 1–16 of U.S. Patent No. 8,020,083 (the "'083 patent"), claims 1–10 and 12–15 of U.S. Patent No. 9,369,545 (the "'545 patent"), and claims 1, 8–13, and 20–24 of U.S. Patent No. 8,510,407 (the "'407 patent"), owned by DoDots Licensing Solutions LLC ("DoDots"). The United States Patent and Trademark Office Patent Trial and Appeal Board (the "Board"), in three separate Final Written Decisions, found that Lenovo had failed to show by a preponderance of the evidence that the challenged claims were unpatentable. *See Lenovo Holding Co. v. DoDots Licensing Sols., LLC*, Nos. IPR2019-00988 (Sept. 9, 2020), IPR2019-01279 (Jan. 5, 2021), IPR2019-01278 (Jan. 19, 2021). Lenovo challenges the Board's decisions, arguing only that the Board erred in its construction of the claim term "NIM template." We *affirm*.

BACKGROUND

I

The three patents at issue relate to a method for accessing and displaying Internet content in a graphical user interface ("GUI"). In the prior art, users "typically accesse[d] the Internet by using a viewer application, such as a browser[,] to view web content provided at a destination address, typically a web page." '407 patent, col. 1, ll. 56–59. Although the web page could be personalized so that there could be a separate page for a specific topic, such as "stock information, weather information[,] and sports information," each page was assembled on a "full web page and [] served through a full-screen browser." *Id.* at col. 1, l. 62–col. 2, l. 3. The problem with that construct, according to the inventors, was that "[w]eb content and application developers [] ha[d] limited control over the user experience"

because "content [wa]s typically trapped within the frame of the browser." *Id.* at col. 2, ll. 3–5.

The inventors claimed to have invented a solution to "a growing desire for individual users to fully control the aggregation and presentation of content and web applications that appear[] on a client computer." *Id.* at col. 2, ll. 14–16. The patents utilize what the inventors called a "Networked Information Monitor (NIM)" and "NIM template," '545 patent, col. 2, ll. 35–36; *id.*, col. 6, l. 35,[1] to allow users to access web content outside of a web browser without the need for developing custom client applications, *see, e.g.*, '083 patent, col. 12, ll. 45–48 ("Without the present invention, an alternative available to the Internet content developer is to develop a custom application that must be downloaded each time it is changed or alternate content is desired to be displayed.").

Under the systems and methods disclosed by the patents, a user logs into a server by providing a login identifier, which is used to obtain the user's profile. The user profile includes references to NIMs. A "NIM refers to a fully configurable frame with one or more controls; the frame through which content is optionally presented." '545 patent, col. 4, ll. 56–59. This "fully configurable frame . . . stands in contrast to web browsers, which are branded by the browser vendor and which have limited means by which to alter the controls associated with the browser." *Id.*, col. 4, ll. 59–63. An example of a NIM (or Dot) provided in the figures of the three patents is Figure 5 of the '083 patent:

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[1] Whereas the '407 and '545 patents speak exclusively in terms of the NIM and NIM template, the '083 patent also uses the analogous terms "Dot" and "Dot definition." *See* '083 patent, col. 24, ll. 12–14.

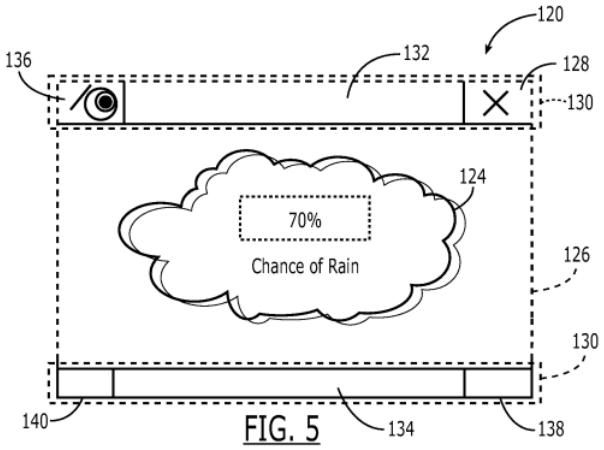

FIG. 5

After the user is logged in and has clicked on the NIM, an applications server retrieves a NIM definition (or template) from a NIM template database. *See, e.g.*, '545 patent, col. 20, ll. 26–30. A "NIM template" defines the characteristics of a specific NIM, including fully configurable frame characteristics, viewer and control characteristics, and NIM content references. *See id.*, col. 6, ll. 34–37. After the user accesses the user profile and the NIM template defines the characteristics of the NIM frame, the content is placed in the NIM viewer defined by the frame for viewing. *Id.* at col. 2, ll. 30–34. These steps are completed by a "client parser application" (or "home NIM" or "Home Dot") that resides on the user's client computing device. *See, e.g.*, *id.*, col. 10, ll. 8–10, 29–31.

II

Lenovo petitioned for *inter partes* review of claims 1–16 of the '083 patent, claims 1–10 and 12–15 of the '545 patent, and claims 1, 8–13, and 20–24 of the '407 patent, arguing that they were rendered obvious by prior art. The Board, in three Final Written Decisions, construed the term "NIM template" as a "data structure which defines the characteristics of a NIM, including the NIM frame, view and control characteristics, and which excludes

executable applications/compiled code." J.A. 19; *see also id.* at 55, 90. Based on that construction, the Board concluded that Lenovo had failed to prove by a preponderance of the evidence that the challenged claims were unpatentable over the prior art.

Lenovo appealed. The sole question before us is whether the Board erred in construing the term "NIM template" in the challenged claims to exclude "executable applications/compiled code." We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

"We review the Board's claim construction[] *de novo* and its underpinning factual determinations involving extrinsic evidence for substantial evidence." *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1278 (Fed. Cir. 2017). Claim construction requires a determination as to how a person of ordinary skill in the art would understand a claim term "in the context of the entire patent, including the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).[2] To understand the meaning of the claim language, we look to the entire intrinsic record, including "the words of the claims themselves, the remainder of the specification, [and] the prosecution history," as well as to "extrinsic evidence concerning relevant scientific principles, [and] the meaning of

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[2] We apply the *Phillips* standard because Lenovo filed its IPR petitions after November 13, 2018, when the PTO changed the claim construction standard to be the "same claim construction standard that is used to construe the claim in a civil action in federal district court." *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340, 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b) (2020)).

technical terms." *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

Lenovo argues that the Board erred by importing a negative limitation (that the NIM template excludes executable applications/compiled code) from an embodiment in the specification. Claims that include a "negative limitation" must find support in "the words of the claim" or through an "express disclaimer or independent lexicography in the written description that would justify adding that negative limitation." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003).

Claim 1 of the '545 patent states in relevant part that a NIM template comprises "a definition of a viewer [GUI] within which content in a web browser-readable language may be presented on the display of the client computing device." '545 patent, col. 42, ll. 36–41. The term "NIM template" has no plain and ordinary meaning. As the Board observed, from the claim language it is clear only that a NIM template "defines the characteristics of the viewer and the content on the viewer." J.A. 13. We thus turn to the specification for guidance on the meaning of a term as used in a particular patent. *See Phillips*, 415 F.3d at 1313; *see also id.* at 1315 (explaining that the specification "'is always highly relevant'" and "'[u]sually . . . dispositive; it is the single best guide to the meaning of a disputed term.'" (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *see also Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1362–63 (Fed. Cir. 2016) (applying *Phillips*).

The specification states that "NIMs allow a developer to provide an application feel *without developing custom client applications*." '545 patent, col. 26, ll. 33–35 (emphasis added); *see also* '083 patent, col. 40, ll. 24–28 ("A Dot developer can [] author a new Dot application by

developing web content (HTML, GIF files, etc.) and by packaging that content in a Dot Definition, *eliminating the need for compilers and consequently, downloading executables*." (emphasis added)). Figure 13 of the '407 and '545 patents "illustrates a data structure for a NIM definition." '545 patent, col. 21, l. 42. The accompanying discussion of Figure 13 in the specification states:

> In one embodiment, the NIM definitions are defined using Extensible Markup Language (XML), so that the NIM as a whole–the frame and the content within the viewer—is advantageously as flexible as standard web content. NIMs are extremely flexible, because *the definition of the NIM is content, rather than compiled code*. The NIM definition defines the structure of the NIM, and everything that is visible in a NIM is based on standard Internet content, such as HTML, dHTML, or GIFs, and is referenced or pointed to by the NIM definition. An "application"–type NIM, such as a web calendar or web mail, may be changed by the user, by the content provider, or by other content, while *advantageously avoiding the need to distribute and support a hard-coded compiled application*. The definition of a NIM thus includes everything that is needed for the NIM to be rendered and filled with Internet content.

Id., col. 21, l. 55–col. 22, l. 3 (emphasis added).

Lenovo argues that this language does no more than describe a single embodiment implementing a NIM template as XML rather than compiled code. That argument is unpersuasive. The key language in the specification—that "the definition of the NIM is content, rather than compiled code," '545, col. 21, ll. 59–60—is not limited to the "one embodiment" in Figure 13. It defines, generally, what a

NIM is.[3] *See Vitronics*, 90 F.3d at 1582 ("The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.").

Lenovo contends that because Claim 1 in the '083 patent states that a NIM template comprises "*instructions* configured . . . to cause the first [NIM] to generate the [GUI]," and further recites "one or more processors configured . . . *to execute the first [NIM] template*," that the NIM template is plainly executable. Appellant's Br. 18, 25. It also points to the summary of the invention in each patent, which includes reference to "executable modules," including a "second executable module" that "defines a NIM frame for the NIM using the definition." Appellant's Br. 30 (quoting '407 patent, col. 3, ll. 4–12). Since the "second executable module" "defines a NIM frame," Lenovo contends, "it is a NIM template under its plain and ordinary meaning. And as an executable module, the NIM template cannot exclude executable code." *Id.*

Each of Lenovo's arguments takes the word "execute" out of context. Lenovo fails to acknowledge that both markup language, such as the XML described in Figure 13, and programming language, such as the Java used by the applications in the prior art, need to be "executed" in some way. The Board observed that DoDots's expert Dr. Sacerdoti testified that "execute" with respect to a NIM template has a different meaning than "execute" as used with respect to an application. Because a NIM template is a data structure, Dr. Sacerdoti explained, a skilled artisan would understand that "execute/executing" references in the

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[3] Notably, Lenovo misleadingly represents the specification's discussion of Figure 13, altering its meaning by tweaking the quote from the specification to read "[i]n one embodiment . . . the definition of the NIM is content rather than compiled code." Appellant's Br. 28.

specification would mean "use/using the information from the NIM template in connection with specified operations." *See, e.g.*, J.A. 2425 ¶ 66. Lenovo failed to submit any rebuttal evidence on this point, and we find the Board's decision to credit the testimony of Dr. Sacerdoti in these respects was supported by substantial evidence.

Finally, Lenovo turns to prosecution history to support its argument that "NIM template" includes executables. During prosecution of a patent application related to the three patents at issue, DoDots distinguished prior art as not teaching "executing" the NIM template. The related application—the '874 application—shares a specification with the parent of the three patents at issue. The pending claims in the '874 Application were the same in relevant part to those of the '083 patent, reciting "executing the first [NIM] template on the one or more processors . . . ." Appellant's Br. 33 (quoting J.A. 2287–89). Following a prior art rejection, DoDots distinguished the prior art on the basis that it did "not teach or suggest executing, on a client device, a first [NIM] template." *Id.* (quoting J.A. 2290); *see also* Appellee's Br. 22–23. Accordingly, Lenovo argues, DoDots "understood the recited NIM template to be executable." Appellant's Br. 33. This is not helpful to Lenovo, however, as it is merely a repackaging of the same argument we have already rejected, that the use of the word "execute" informs the meaning of the word "executable." In the related prosecution, DoDots was using "executing" the same way it uses it here: to mean "using."

For the foregoing reasons, we conclude that the Board did not commit legal error in construing the term "NIM template." Accordingly, we affirm the Board's decision finding that the challenged claims of the '083, '545, and '407 patents were not shown to be unpatentable.

AFFIRMED