

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

PAUL C. CLARK,
Appellant

v.

DOCUSIGN, INC.,
Appellee

2024-1301, 2024-1302, 2024-1308

Appeals from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in Nos. IPR2022-
00923, IPR2022-00924, IPR2022-00925.

Decided: July 25, 2025

FREDERICK NGOSI SAMUELS, Cahn & Samuels, LLP,
Washington, DC, argued for appellant. Also represented
by MAURICE U. CAHN.

MICHAEL JOHN SACKSTEDER, Fenwick & West LLP, San
Francisco, CA, argued for appellee. Also represented by
TODD RICHARD GREGORIAN.

Before PROST, CLEVINGER, and CUNNINGHAM, *Circuit Judges*.

CLEVINGER, *Circuit Judge*.

In three *inter partes* review (“IPR”) proceedings, the Patent Trial and Appeal Board (“Board”) determined that claim 1 of U.S. Patent No. 8,695,066 (the “’066 patent”), claims 1–3 of U.S. Patent No. 9,391,957 (the “’957 patent”), and claim 1 of U.S. Patent No. 10,129,214 (the “’214 patent”) were unpatentable as obvious. J.A. 1–91. Dr. Paul C. Clark, owner of the challenged patents, seeks to overturn the Board’s decisions in all three IPRs. For the following reasons, we affirm.

BACKGROUND

A

The challenged patents purport to improve “security mechanisms” for “high value business-to-business (B2B) and Business-to-Consumer (B2C) transactions” on the internet. ’066 patent, col. 1 ll. 15–18.¹ Existing solutions relied on “Secure Socket Layer (SSL) to encrypt traffic between a client’s browser and a web server” and while SSL provided “confidentiality . . . at the network level” it did not “provide authentication or non-repudiation of transactions.” *Id.*, col. 1 ll. 19–22. Thus, internet transactions lacked complete security because “[m]any applications reside on a separate server” from the web server and “[t]raffic between the web server and the application server [was] not protected by SSL.” *Id.*, col. 1 ll. 24–27. Further, firewalls, which are intended to protect corporate networks

¹ The challenged patents share a common specification and claim priority through one or more continuation applications to U.S. Serial No. 09/568,215. We cite to the specification of the ’066 patent as exemplary of all three patents.

from outsiders, still display security vulnerabilities as allowing customers and partners access to the network means providing access holes through which unauthorized users can traverse a firewall and attack a web server. *See id.*, col. 1 ll. 47–53. Therefore, the challenged patents sought to provide “a system for secure communicat[ion]” on the internet “that protect[ed] the integrity of data in transit . . . while allowing the appropriate level of access to authorized users.” *Id.*, col. 1 ll. 54–58. To accomplish this, the alleged invention added one or more conventional security services to enhance data from a first domain, “translated” the data to a target protocol, de-enhanced the translated data, filtered out unauthorized data, and transmitted the filtered data to a second domain. *See id.*, col. 14 ll. 13–29.

In April 2022, DocuSign, Inc. (“DocuSign”) filed three IPR petitions, challenging each of the challenged patents as obvious, and the Board instituted all three challenges in November 2022. During the IPR proceedings, Dr. Clark only argued against DocuSign’s claim mappings and assertions for the “translating” claim limitation in each patent, and conceded that all other claim limitations were obvious in light of the asserted prior art. *See* J.A. 13; J.A. 49; J.A. 81–87; J.A. 3176–83; J.A. 4855–64; J.A. 4868–76. The “translating” claim limitation for each patent reads as follows:

translating the received data from a first network application level protocol to a target network application level protocol while preserving said data security enhancements

’066 patent, col. 14 ll. 15–18;

translating the received data from a first network application level protocol to a target network application level protocol while preserving said data security enhancements

’957 patent, col. 13 ll. 58–61;

translate the received data from a first network application level protocol to a target network application level protocol while preserving said data security enhancements

'214 patent, col. 14 ll. 31–34.

DocuSign asserted U.S. Patent No. 6,163,844 (“Duncan”), in combination with other prior art not relevant to this appeal,² as rendering the challenged patents obvious.³

Duncan relates to a method for secure communication on the internet by granting access to information in a distributed computer system. Duncan, col. 1 ll. 6–9. Duncan describes a “known network architecture” where the “network line transmits data from [a] browser to [a] host computer via a transfer protocol.” *Id.*, col. 8 ll. 43–44, 55–57. Duncan specifically calls out the “hypertext transfer protocol HTTP” as “an example of such a transfer protocol,” but Duncan also describes that protocols “can differ

² In the IPR challenge of the '066 patent, the Board held the challenged claims obvious in light of Duncan, with reference to additional prior art teachings that showed the “inherent properties of . . . particular features of Duncan.” J.A. 7.

In the IPR proceedings for the '957 patent, the Board held the challenged claims obvious in light of Duncan and U.S. Patent No. 6,173,399B1. *See* J.A. 43, 71.

In the IPR proceedings for the '214 patent, the Board held the challenged claims obvious in light of Duncan alone. *See* J.A. 87, 89.

³ DocuSign asserted additional grounds of unpatentability, which the Board did not reach because it determined that the challenged claims were obvious in light of Duncan. J.A. 29; J.A. 35 n.6; J.A. 65; J.A. 71 n.6–7; J.A. 87–88; J.A. 89 n.10.

fundamentally” from each other. *Id.*, col. 8 ll. 57–58, col. 9 l. 1–3. To transmit the data in a secure manner, Duncan discloses multiple “protocol converters,” which generally “convert incoming requests into such a form that they can be further processed in the server.” *Id.*, col. 10 ll. 36–37. The protocol converters “convert[] the information according to the network protocol employed and according to the form of the presentation of the information employed in the browser” and the protocol converters also convert “the data according to the network protocol of a security network.” *Id.*, col. 11 ll. 44–46, col. 12 ll. 5–6. They also convert “requests from [a] security network for the proxy browser and convert[] the replies from the proxy browser for the security network.” *Id.*, col. 12 ll. 18–20.

B

The Board held that DocuSign showed by a preponderance of the evidence that the challenged claims in all three patents would have been obvious in light of either Duncan alone or in combination with other prior art. J.A. 28.⁴ The Board noted that “network application level protocol” was the “sole term requiring construction” and adopted Dr. Clark’s suggested construction: “a protocol that functions at the application level and is intended to transfer data over a network.” J.A. 9–10. Turning to the merits, the Board determined that Duncan teaches each limitation of the challenged patents, spending the majority of its time analyzing the “translating” claim limitation.

The Board found that Duncan’s disclosure of “protocol converters” taught “the claimed translating of data.” J.A.

⁴ Because the Board’s analysis regarding the “translating” claim limitation was substantially similar in all three IPRs, *see* J.A. 16–27; J.A. 51–62; J.A. 82–87, we cite to the Board’s decision in the IPR for the ’066 patent as exemplary of all three Final Written Decisions.

21. The protocol converters, according to the Board, disclosed translating “from one protocol to a target protocol” because Duncan describes protocols that “differ fundamentally.” J.A. 22–23. Further, “[a]lthough [Duncan’s] description does not specifically address the interactions at [its] protocol converters” the Board credited the testimony of DocuSign’s expert, Dr. Black, as supporting the assertion that “Duncan contemplates conversion to a different protocol in appropriate circumstances.” J.A. 23. Therefore, the Board found that “Duncan teach[es] that a network control protocol becomes something different by the conversion performed by its protocol converter,” thus rendering the “translating” claim limitation obvious. J.A. 24. Based on this evidence, the Board held that it didn’t need to “address the parties’ discussion” regarding whether “the two claimed protocols” needed “to be different from each other.” J.A. 24 n.4.

The Board rejected Dr. Clark’s argument that Duncan’s protocol converters merely “modified” the transfer protocols rather than “convert[ing]” or “translating” them. J.A. 23. The Board explained that Duncan did “not use the term ‘modified’” but instead used “the term ‘converted,’ which the record shows to be interchangeable with the claimed ‘translating.’” *Id.* Dr. Clark also argued that Duncan does not render all the claim limitations obvious because it only “describes a single transfer protocol, i.e., HTTP.” J.A. 25 (quoting J.A. 3181). The Board dismissed this argument finding that Dr. Clark’s “discussion of the nature of Duncan’s ‘modification,’ has confirmed” that Duncan teaches the required “target network application protocol.” *Id.*

Dr. Clark appeals the Board’s decisions. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Claim construction is an issue of law that we review de novo when based on intrinsic evidence. *Personalized*

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Media Commc'ns, LLC v. Apple, Inc., 952 F.3d 1336, 1339 (Fed. Cir. 2020). “Obviousness is a question of law, based on underlying factual determinations.” *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1384 (Fed. Cir. 2015). We review the Board’s “ultimate determination on obviousness . . . de novo” and any “underlying factual findings . . . for substantial evidence.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016).

I

Dr. Clark argues that the Board committed legal error in its claim construction because either the Board failed to resolve an express claim construction dispute or, in the alternative, the Board’s implicit claim construction is incorrect. We reject both arguments.

First, Dr. Clark argues that the Board did not resolve the parties’ express dispute regarding whether the “target” and “first” protocols “can be the same protocol . . . or whether [each] is required to be . . . separate[] [and] independent” from the other. Appellant’s Br. 11. However, the Board was not required to resolve any alleged claim construction dispute because it stated that Duncan disclosed the “translating” claim limitation under either party’s proposed construction. *See* J.A. 24 n.4. The Board need “only construe claim terms that are in controversy, and only to the extent necessary to resolve the controversy.” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)) (cleaned up). Thus, the Board did not commit legal error by abstaining from construing the term in dispute where the Board determined the claim limitations were obvious under either party’s proposed construction. *See Voice Tech Corp. v. Unified Patents, LLC*, 110 F.4th 1331, 1341–42 (Fed. Cir. 2024).

Alternatively, Dr. Clark argues that the Board committed legal error when it “implicitly determined or assumed

that” the “translating” claim limitation is met “when the target . . . protocol is the same protocol as the first . . . protocol.” Appellant’s Br. 13. According to Dr. Clark, the “target protocol” must be different from the “first protocol” and under this interpretation the challenged patents “can avoid Duncan.” *Id.* at 12. However, Dr. Clark ignores the fact that the Board did not implicitly construe “target protocol” or “first protocol” because the Board’s analysis did not set the scope and meaning of the patented subject matter. *See Google LLC v. EcoFactor, Inc.*, 92 F.4th 1049, 1055 (Fed. Cir. 2024) (explaining that the Board has construed a claim when its “analysis . . . establishes the scope (e.g., boundaries) and meaning of *the patented subject matter*”); *Sigray, Inc. v. Carl Zeiss X-Ray Microscopy, Inc.*, 137 F.4th 1372, 1377 (Fed. Cir. 2025) (same). Rather, the Board explicitly stated it did not need to determine whether “the two claimed protocols [need] to be . . . different from each other,” J.A. 24 n.4, because Duncan “teaches the claimed translating of data from one protocol to a target protocol” regardless of whether the protocols are the same or not. J.A. 24. And the Board’s analysis did not *require* that the target protocol and the first protocol be the same. For instance, the Board credited Dr. Black’s testimony that “the protocol converter converts . . . data from the HTTP application protocol of the browser to a network protocol of the server,” J.A. 23 (citing J.A. 885 ¶ 147), as well as Duncan’s teaching that the network protocols can “differ fundamentally” from each other. J.A. 23. Thus, the Board explicitly found that “Duncan contemplates conversion to a different protocol in appropriate circumstances.” *Id.*

Because Dr. Clark does not challenge the claim construction the Board did perform and because the Board did not implicitly construe any claim terms, we reject both of Dr. Clark’s claim construction arguments.

II

Dr. Clark also challenges the Board's obviousness determination. Regarding the obviousness inquiry, the only issue on appeal is whether Duncan discloses the "translating" limitation. *See* Oral Arg. at 10:38–11:00, *Clark v. DocuSign, Inc.*, Nos. 2024-1301, 2024-1302, 2024-1308 (Fed. Cir. July 14, 2025), https://oralarguments.cafc.uscourts.gov/default.aspx?fl=24-1301_07142025.mp3 (hereinafter "Oral Arg.").

We review the Board's ultimate obviousness determination de novo, and its underlying factual findings for substantial evidence. *Harmonic Inc.*, 815 F.3d at 1363. The Board's factual determinations include "the scope and content of the prior art, differences between the prior art and the claims at issue, the level of ordinary skill in the pertinent art, the motivations to modify or combine prior art, and any objective indicia of non-obviousness." *Corning v. Fast Felt Corp.*, 873 F.3d 896, 902 (Fed. Cir. 2017).

Here, the issue is whether the Board's factual findings underpinning its obviousness determination are supported by substantial evidence. *See Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1343 (Fed. Cir. 2020). We hold substantial evidence supports the Board's finding that "Duncan's protocol converter perform[s] the claimed step of translating data from one protocol to another." J.A. 27. In making its determination, the Board relied on the following evidence: 1) Duncan's teaching of protocol converters, Duncan, col. 11 ll. 42–46; 2) Duncan's description that, at least in one embodiment, the network protocol can "differ fundamentally" from another network protocol used by the server, Duncan, col. 8 ll. 55 to col. 9 ll. 3; 3) Dr. Black's testimony that "the protocol converter [] converts the data from an application protocol of the browser (in this case HTTP) to a network protocol of Duncan's network," J.A. 885 ¶ 147; 4) the '066 patent's interchangeable use of

the term “convert” and “translate”;⁵ and 5) Dr. Clark’s use of the term “convert” interchangeably with “translate” during his deposition, where he served as his own expert witness, J.A. 3226–27, 34:19–35:2. *See* J.A. 21–24. Taken together, this evidence serves as substantial evidence that Duncan discloses a system that utilizes protocol converters to convert data from one protocol to another, where the protocols can differ fundamentally from each other. This is all that the disputed claim limitations require.

Dr. Clark argues that substantial evidence does not exist because “Duncan identifies only a single transfer protocol by name, i.e., HTTP” and Duncan “fails to disclose” a target protocol “that is a different network application level protocol from HTTP.” Appellant’s Br. 18–19. However, Duncan is not limited to only the HTTP protocol. Duncan states that the network protocols it describes “can differ fundamentally” from each other. Duncan, col. 9 l. 2. Nothing in Duncan’s specification or claims limits its disclosure and invention to only the HTTP protocol, especially because by the ’066 patent’s claimed priority date, “the concept of protocol translation was well-understood and well-established in the field of computer networking, and the specific examples used in the ’066 specification . . . were already embodied in published standards.” J.A. 870 ¶ 117. There is no reason to read Duncan as narrowly as Dr. Clark suggests when nothing in Duncan’s specification explicitly limits the disclosure to only one protocol. *See Kinik Co. v. Int’l Trade Comm’n.*, 362 F.3d 1359, 1364 (Fed. Cir. 2004)

⁵ *See, e.g.*, ’066 patent, col. 4 ll. 60–67 (“The protocol gateway [] is a logical unit that preferably *translates* client/server transactions to and from target/source protocols. For example, [a] protocol gateway [] can be connected to an X.25 network. When X.400 requests are received, these can be *converted* to a target protocol . . .”) (emphasis added).

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("[W]hen the specification describes the invention in broad terms, accompanied by specific examples or embodiments, the claims are generally not restricted to the specific examples or the preferred embodiments unless that scope was limited during prosecution.").

During oral argument, Dr. Clark asserted that the Board's conclusion is not supported by substantial evidence because even if Duncan discloses a translation between different protocols, it does not explain how a network protocol is operating or functioning at the application level. *See* Oral Arg. at 3:18–4:00; 4:38–5:15; 9:20–10:02; 12:25–13:13. This argument appears to be new and asserted for the first time at oral argument. When pressed to show support for this new argument, Dr. Clark pointed to pages 18 and 19 of his opening brief and pages 9 and 10 of his reply brief. *Id.* at 21:44–22:02. However, these pages do not recite this new argument, but rather assert that the Board incorrectly relied on Duncan because Duncan does not "suggest or disclose translation from one network application level protocol to another," the argument we rejected above. Appellant's Br. 18. Because Dr. Clark's argument is presented for the first time on appeal, we decline to consider it. *See In re Google*, 980 F.3d 858, 863 (Fed. Cir. 2020) ("[A] position not presented in the tribunal under review will not be considered on appeal in the absence of exceptional circumstances.").

CONCLUSION

For the reasons explained above, we affirm the Board's determination that the challenged patents are unpatentable as obvious.

AFFIRMED

COSTS

No costs.