

NOTE: This disposition is nonprecedential.

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

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**APPLE INC.,**  
*Appellant*

v.

**MPH TECHNOLOGIES OY,**  
*Appellee*

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2021-1387

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2019-00821.

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Decided: January 25, 2022

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SETH W. LLOYD, Morrison & Foerster LLP, Washington, DC, argued for appellant. Also represented by BRIAN ROBERT MATSUI, JOSEPH R. PALMORE, MICHAEL QIAN; RICHARD HUNG, San Francisco, CA; BITA RAHEBI, Los Angeles, CA.

BRIAN ERIK HAAN, Lee Sheikh Megley & Haan LLC, Chicago, IL, argued for appellee. Also represented by ASHLEY E. LAVALLEY, CHRISTOPHER LEE, RICHARD BURNS

MEGLEY, JR.; JAMES CARMICHAEL, STEPHEN TERRY SCHREINER, Carmichael IP, PLLC, Tysons Corner, VA.

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

LOURIE, *Circuit Judge*.

Apple Inc. (“Apple”) appeals from the final written decision of the Patent Trial and Appeal Board (the “Board”) holding that Apple failed to demonstrate that claims 1–16 of U.S. Patent 8,037,302 (the “302 patent”) were unpatentable. *See Apple Inc. v. MPH Technologies Oy*, No. IPR2019-00821, 2020 WL 5900607 (P.T.A.B. Oct. 5, 2020) (“*Decision*”). For the reasons provided below, we *affirm*.

#### BACKGROUND

MPH Technologies Oy (“MPH”) owns the ’302 patent, which relates to providing secure connections in telecommunication networks. The specification explains that IP security protocols (“IPSec”) provide the capability to secure connections through encryption and authentication. ’302 patent, col. 1 ll. 38–49. A security association is a relationship between a sender and receiver that offers security services to the traffic carried on it. *Id.* at col. 1 ll. 62–67. The specification states that IPSec was designed for use with hosts that are relatively static. *Id.* at col. 2 ll. 19–49. IP routing for telecommunication is based on fixed IP addresses, so IPSec may not work well with mobile devices. *Id.* If a mobile host moves from one network to another, a time-consuming IPSec connection set up is required. *Id.* The patent discloses avoiding the need to set up an IPSec connection when a mobile terminal changes networks by relying on a security association that is already established. *See, id.*, at col. 10 ll. 39–43; col. 10 ll. 51–56.

Claim 1, the sole independent claim, reads as follows:

1. A method for ensuring secure forwarding of a message in a telecommunication network, comprising:

providing a first terminal from which the message is sent and a second terminal to which the message is sent,

a) establishing a first secure connection as being an active connection and extending between a first network address of the first terminal and an original network address of the second terminal, establishing a second secure connection extending between a second network address of the first terminal and the original network address of the second terminal,

b) the first terminal changing from the first network address to the second network address,

the first terminal checking whether the second secure connection already exists, and

c) when the second secure connection already exists, the second terminal registering the already established second secure connection as being the active connection without having to reestablish the second secure connection.

'302 patent, col. 12 ll. 15–34 (emphasis added).

Apple filed a petition for *inter partes* review of claims 1–16 of the '302 patent. Apple argued that claims 1–13 and 16 would have been obvious over Int'l Patent Pub. WO 01/54379 A1 (“Ahonen”) in view of U.S. Patent 6,904,466 (“Ishiyama”). J.A. 38, 44. Apple also argued that claims 14 and 15 would have been obvious over

Ahonen and Ishiyama in view of a conference proceeding publication titled “*Complete Computing*” (“Gupta”).<sup>1</sup> *Id.* at 45.

The parties initially identified the term “establishing a . . . secure connection” for construction. *Decision*, 2020 WL 5900607, at \*4 (the “establishing limitation”). MPH suggested that the establishing limitation should be construed to require forming or creating a new secure connection, and Apple agreed. *Id.*; J.A. 320. Specifically, Apple stated that the parties agreed on the claim construction for the establishing limitation but disputed its application to the prior art references. J.A. 319–20.

Although Apple agreed to MPH’s proposal, MPH noted the possibility that construction of the establishing limitation was still in dispute. Specifically, MPH argued that establishing a security association does not include modifying or activating a security association. J.A. 352–61. During the hearing on July 17, 2020, the Board asked Apple to explain its position regarding construction of the establishing limitation. Apple’s counsel reaffirmed its belief that the plain and ordinary meaning, “forming or creating a new secure connection,” should apply. J.A. 416–17. The Board thus construed “establishing a . . . secure connection” as meaning “forming or creating a new secure connection.” *Decision*, 2020 WL 5900607, at \*4.

The Board’s determination regarding obviousness hinged on whether Ahonen taught the establishing limitation. *Id.* at \*6, \*9. During its analysis, the Board stated that the establishing limitation has two requirements: “that the secure connection is established (i) as ‘extending between a first network address of the first terminal and

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<sup>1</sup> Vipul Gupta, *et al.*, *Complete Computing*, WWCA ’98 Proc. 2D Int’l Conf. on Worldwide Computing and Its Applications (Mar. 4–5, 1998).

an original network address of the second terminal’ and (ii) ‘as being an active connection.’” *Id.* at \*6. “[T]he first requirement is met by ‘forming or creating a new secure connection’ between the claimed addresses.” *Id.* For the second requirement, the Board analyzed the ’302 patent and determined that “the claim language requires that when the first secure connection is established, it is registered as being an active connection.” *Id.* The Board concluded that “a secure connection [is] established as an active connection (i.e., being available for immediate use when the secure connection is formed) [but] does not require immediate use.” *Id.* at \*7.

The Board agreed with MPH that Ahonen fails to teach the establishing limitation. The Board determined that “Ahonen fails to teach that the first secure connection is registered as being an active connection when the first secure connection is formed.” *Id.* at \*8. The Board explained that Ahonen teaches creating a security association during a preparations stage and that a remote mobile user may remotely activate the preexisting connection during a remote control stage. *Id.* Thus, when the Ahonen secure connection is formed, it is not active.

In making this determination, the Board relied in part on Ahonen’s teachings about remote control flag operation. Ahonen explains that information about each of the security associations can include a remote control flag indicating whether the security association has been activated by a mobile host from outside the intranet. *Id.* at \*9 (citing ’302 patent, col. 15 ll. 15–16; col. 15 l. 31–col. 16 l. 2). A remote control flag is initially set to “Off” during the preparations stage and is changed to “On” when remotely activated by a mobile user. *Id.* An “Off” flag means that the security association has not been activated by the remote control function. *Id.* The flag is set to “On” after the firewall receives a valid control authorization certificate from the mobile host. *Id.* (citing ’302 patent, col. 17 ll. 1–32).

The Board credited MPH's expert's opinion, which stated that a person of skill in the art would understand the establishing limitation "to mean that the first secure connection is established as an active connection for immediate use, as opposed to an inactive connection reserved for later use." *Id.* at \*6. MPH's expert stated that "the term not only requires creating or forming a new secure connection, but also creating or forming a new secure connection as being an active connection." *Id.* The Board found MPH's expert's opinion "consistent with the plain and ordinary meaning of the limitation's claim language and the '302 patent's [s]pecification." *Id.* at \*7. In contrast, the Board gave Apple's expert's opinion little weight, finding that testimony "contrary to the plain claim language and the [s]pecification's teachings," "contrary to Ahonen's teachings," and "without sufficient factual corroboration." *Id.* at \*8, \*9.

The Board concluded that Apple failed to show by a preponderance of the evidence that claims 1–16 of the '302 patent are unpatentable. *Id.* at \*9. Apple appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

We review the Board's legal determinations *de novo*, *In re Elsner*, 381 F.3d 1125, 1127 (Fed. Cir. 2004), but we review the Board's factual findings underlying those determinations for substantial evidence, *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). A finding is supported by substantial evidence if a reasonable mind might accept the evidence as adequate to support the finding. *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

Apple raises two challenges on appeal. First, Apple contends that the Board erred in construing the establishing limitation. Second, Apple argues that the Board's determination that Ahonen fails to disclose the establishing limitation is unsupported by substantial evidence.

## I

We first consider Apple's claim construction challenge. Claim construction is a matter of law that we review *de novo*. See *Poly-America, L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1135–36 (Fed. Cir. 2016).

Apple argues that the Board erred in construing the establishing limitation. Apple contends that the Board improperly narrowed the establishing limitation by including a timing restriction and by excluding embodiments where a new connection is created by modifying an existing connection. Apple argues that the claims do not restrict when or how a secure connection becomes active. Apple contends that activating a secure connection can take place separately in time from when a connection is first formed and that an existing connection can be modified to establish a connection as active.

MPH responds that Apple failed to raise its claim construction arguments before the Board. MPH contends that Apple informed the Board that the only dispute before it was the application of the agreed-upon construction to the prior art. MPH thus argues that Apple's failure to raise its claim construction arguments before the Board compels a finding of forfeiture. See *In re Google Tech. Holdings LLC*, 980 F.3d 858, 862–63 (Fed. Cir. 2020) (interpreting the U.S.P.T.O.'s waiver argument as a forfeiture argument). Additionally, MPH argues that the Board did not impose unnecessary restrictions into the establishing limitation. MPH contends that the Board properly adopted the parties' agreed-upon construction of the establishing limitation, analyzed and applied the plain and ordinary meaning of the limitation, and found that Ahonen's remote activation of a preexisting and inactive security association does not meet the establishing limitation of claim 1.

We agree with MPH that, contrary to Apple's position on appeal, Apple only disputed the application of the agreed construction to the prior art. In its reply brief to

MPH's response, Apple stated that construction of the establishing limitation was not at issue—only the factual application of the construction to Ahonen's teachings. In response to questioning at the hearing concerning whether claim construction was in dispute, Apple maintained that the parties agreed on the construction of the establishing limitation and argued only about the application of the construction to Ahonen. Furthermore, Apple does not argue that the Board engaged in sua sponte construction or that there are exceptional circumstances that justify departing from the forfeiture principle.

It is clear from the record that Apple chose not to characterize its dispute concerning the establishing limitation as a claim construction issue before the Board. Apple attempts here, in contrast, to recharacterize that same dispute as a construction issue deserving of *de novo* review. MPH's expert's declaration put Apple on notice that MPH was taking the position that a person of skill would understand the establishing limitation “to mean that the first secure connection is established as an active connection for immediate use, as opposed to an inactive connection reserved for later use.” *See Decision*, 2020 WL 5900607, at \*6–7; J.A. 2028. With the knowledge of MPH's position, Apple continued to maintain that there was no further dispute concerning construction of the establishing limitation. After the Board agreed with MPH and MPH's expert, however, Apple changed its strategy and characterized the issue as a claim construction dispute. We do not encourage “suggesting or permitting, for strategic reasons, that [the Board] pursue a certain course, and later—if the outcome is unfavorable—claiming that the course followed was reversible error.” *Google*, 980 F.3d at 864 (internal quotation marks omitted).

We conclude that Apple forfeited its arguments as to the construction of the establishing limitation because Apple failed to raise these legal arguments before the Board. In the absence of exceptional circumstances, we decline to



address the merits of Apple's proposed constructions. *See id.* at 862–63.

## II

We next consider Apple's assertion that the Board's determination was unsupported by substantial evidence. Apple first argues that, under its proposed construction of the establishing limitation, the Board's finding that Ahonen fails to disclose the establishing limitation is unsupported by substantial evidence. But since we do not consider Apple's new claim construction arguments on appeal, we need not consider the merits of arguments that depend on the adoption of those constructions.

Apple also contends that the Board erred by using a truncated obviousness analysis. Apple argues that the Board merely identified a timing difference between Ahonen and the claims and ended its analysis without considering whether that difference was a predictable variation. Apple argues that the claims were a trivial variation of the prior art, the result of a routine design choice, and a choice between two well-known options. Apple states that “a patent can be obvious in light of a single prior art reference if it would have been obvious to modify that reference to arrive at the patented invention.” Appellant's Br. at 38 (citing *Monsanto Tech. LLC v. E.I. DuPont de Nemours & Co.*, 878 F.3d 1336, 1346 (Fed. Cir. 2018)). MPH counters that Apple failed to raise these obviousness theories before the Board.

We agree with MPH. First, Apple's underdeveloped argument that the Board erred by conducting a truncated analysis is not persuasive. Apple fails to identify any particular error made by the Board in considering the differences between the claims and the prior art. The Board determined that the claim language “tethers the timing of registering the connection as an active connection to when the secure connection is formed,” *Decision*, 2020 WL 5900607, at \*7, and that “Ahonen fails to teach that the

first secure connection is registered as being an active connection when the first secure connection is formed,” *id.* at \*8. Although Apple argues that the Board did not sufficiently consider differences between the claims and the prior art, Apple’s generalized accusations are not enough to identify reversible error. Apple’s disagreement with the Board’s interpretation of Ahonen does not amount to a demonstration that the Board failed to conduct a proper obviousness analysis.

Second, Apple argues for the first time that it would have been trivial to modify Ahonen to incorporate the claimed activation timing. Before the Board, Apple argued that Ahonen “explicitly teaches” the establishing limitation. *See id.* In its petition, Apple stated that “[t]he ’302 patent presents a trivial solution to [a] problem that was already well-known,” but argued that “Ahonen . . . **explicitly disclosed** this approach.” J.A. 42–43 (emphasis added). Apple did not present a single reference obviousness ground to the Board; thus, Apple’s arguments are untimely. Again, we decline to consider obviousness theories that are raised for the first time on appeal.

#### CONCLUSION

We have considered Apple’s remaining arguments, but we find them unpersuasive. Accordingly, we *affirm* the Board’s final written decision upholding the patentability of the claims of the challenged patent.

**AFFIRMED**