

NOTE: This disposition is nonprecedential.

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

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**M2M SOLUTIONS LLC,**  
*Appellant*

v.

**AMAZON.COM, INC.,**  
*Appellee*

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2022-1122, 2022-1124

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Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2019-01204, IPR2019-01205.

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Decided: February 22, 2023

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MARC N. HENSCHKE, Cantor Colburn LLP, Hartford, CT, argued for appellant. Also represented by ANDREW C. RYAN.

CHRISTINA JORDAN McCULLOUGH, Perkins Coie LLP, Seattle, WA, argued for appellee. Also represented by THERESA H. NGUYEN; DANIEL T. SHVODIAN, Palo Alto, CA.

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Before LOURIE, PROST, and CHEN, *Circuit Judges*.

LOURIE, *Circuit Judge*.

M2M Solutions LLC (“M2M”) appeals from two final written decisions of the United States Patent and Trademark Office Patent Trial and Appeal Board (“the Board”) finding claims 1–30 of U.S. Patent 9,961,477 (“the ’477 patent”) and claims 1–30 of U.S. Patent 10,038,989 (“the ’989 patent”) unpatentable as obvious under 35 U.S.C. § 103. *See Amazon.com v. M2M Sols. LLC*, IPR2019-01204 (P.T.A.B. Jan. 20, 2021) (“’477 Decision”), J.A. 1–115; *Amazon.com v. M2M Sols. LLC*, IPR2019-01205 (P.T.A.B. Jan. 20, 2021) (“’989 Decision”), J.A. 163–250 (collectively, “Decisions”). For the reasons provided below, we *affirm*.

#### BACKGROUND

The ’477 and ’989 patents, which share a common specification, relate to a “remote asset management system” in which a server “receive[s] remote asset data” from wireless modules linked to the assets, such as laptops, cellular phones, etc. *See, e.g.*, ’477 patent at Abstract. Claim 1 of the ’477 patent, reproduced below, is representative.

1. A method of operating a remote computer server platform to provide a range of consumer services by autonomously monitoring and managing a plurality of consumer device assets wirelessly connected to one or more communications networks, each asset having operating system and application software, nonvolatile memory for storing files of data content for display to a consumer user of the device, and a display apparatus for displaying the stored data content, said method comprising:

...

receiving at the remote computer server platform communications sent from each of the plurality of consumer device assets containing consumer usage information identifying a

manner in which a consumer user has used the particular sending consumer device asset, said communications having automatically resulted from at least one selected from the group consisting of preprogrammed conditions and programming instructions generated by the remote computer server platform;

monitoring the plurality of consumer device assets by the remote computer server platform by automatically processing, according to preprogrammed conditions, the received operational status information and the received consumer usage information;

*managing the plurality of consumer device assets by the remote computer server platform, based upon the results of having processed at least some of the received consumer usage information, by sending communications containing one or more management instructions that cause the stored display data content files of one or more assets to be automatically modified so as to provide a consumer service;*  
and

...

'477 patent at col. 26 ll. 5–61 (emphasis added). We refer to the language emphasized above as the “managing” limitation. An identical limitation appears in independent claim 20 of the '477 patent and independent claims 1 and 20 of the '989 patent.

Additionally of relevance, claims 9, 16, 19, 27, and 28 of both challenged patents require a “unique identifier.” Representative claim 9 of the '477 patent is reproduced below.

9. A method according to claim 8 wherein the remote computer server platform includes in

one or more of the aforesaid wireless packet switched data message communications containing one or more management instructions sent to one or more of the plurality of consumer device assets *a unique identifier of the particular receiving consumer device asset, and wherein said unique identifier comprises in whole or in part an identification code specific to that particular receiving consumer device asset.*

'477 patent at col. 27 ll. 49–57 (emphasis added).

Amazon.com, Inc. (“Amazon”) petitioned for *inter partes* review (“IPR”) of both challenged patents, asserting that claims 1–30 of each patent would have been obvious over Kloba<sup>1</sup> in combination with various other references. During the IPRs, the Board construed the “managing” limitation as requiring only “the sending of communications containing management instructions, and thus the managing of the plurality of consumer device assets by the remote server computer platform, [to] *be based upon* the results of such processing.” *'477 Decision*, J.A. 95; *see also '989 Decision*. at J.A. 188. M2M disagreed, proposing its own, narrower construction, but did not dispute that the asserted prior art disclosed the “managing” limitation under the Board’s construction.

The Board additionally determined in both IPRs that asserted prior art references, Kloba ('477 patent) or Kloba and Hoyle<sup>2</sup> ('989 patent), disclose the “unique identifier” required by dependent claims 9, 16, 19, 27, and 28 of both challenged patents. The Board found that a person of ordinary skill would have understood Kloba to disclose a consumer device and server in direct communication, where

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<sup>1</sup> U.S. Patent 6,421,717 to Kloba et al.

<sup>2</sup> U.S. Patent 6,141,010 to Hoyle.

said communication would include the unique IP address of the receiving consumer device. *Decisions*, J.A. 109–12, 244–47. M2M argued that, in at least some instances, these communications passed through an intermediate router, which would cause the unique IP address to be that of the router, not the receiving consumer device asset. *Id.* at J.A. 110, 245. The Board found M2M’s argument unpersuasive. *Id.* at J.A. 112, 247.

In the ’477 Decision, the Board also found that M2M was collaterally estopped from arguing that Kloba failed to disclose the “consumer usage information” required by claims 1 and 20. The Board had previously rendered a final written decision in IPR2017-01892 of related U.S. Patent 8,577,358 (“1892 IPR”), which has similar claims to the ’477 and ’989 patents. In the ’1892 IPR, the Board construed the term “consumer usage information” to be “at least as broad as information relating to a consumer’s use of a device asset,” ultimately finding that Kloba disclosed this limitation under this construction. But the Board also alternatively analyzed Kloba under the narrower construction of “consumer usage information” that M2M had proposed in its Preliminary Patent Owner Response: “information identifying the manner in which a consumer has used a consumer device asset.” And even under this construction, the Board found that Kloba disclosed the limitation. *Amazon.com v. M2M Sols., Inc.*, IPR2017-01892 (P.T.A.B. Feb. 7, 2019) at 40–42.

M2M did not appeal the ’1892 IPR final written decision on any issues relating to “consumer usage information.” Here, the Board construed “consumer usage information” to mean information “identifying a manner in which a consumer user has used the particular sending consumer device asset.” ’477 Decision, J.A. 24–25. The Board then found that the ’1892 IPR decision had previously decided whether Kloba disclosed “consumer usage information” “under a claim construction that materially tracks the claim construction adopted here.” ’477 Decision,

J.A. 58. Because an identical issue had previously been fully litigated and finally decided, the Board found that M2M was therefore collaterally estopped from arguing Kloba did not disclose the claimed “consumer usage information.” ’477 *Decision*, J.A. 59, 208–09. These findings caused the Board to find the challenged claims unpatentable.

M2M appeals the Board’s rejection of claims 1–30 of the ’477 patent and claims 1–30 of the ’989 patent. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

We review “the Board’s ultimate claim constructions *de novo*.” *AC Techs. S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1365 (Fed. Cir. 2019). We “review the Board’s legal conclusion of obviousness *de novo*, and underlying factual findings for substantial evidence.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1373 (Fed. Cir. 2016). “The inherent teaching of a prior art reference” is a “question of fact.” *In re Napier*, 55 F.3d 610, 613 (Fed. Cir. 1995).

M2M raises four main arguments on appeal: (1) that the Board erred in construing the “managing” limitation, (2) for the ’477 patent, that the Board erred in determining that M2M was collaterally estopped from asserting that Kloba did not disclose the required “consumer usage information,” (3) that the Board erred in finding Kloba disclosed the required “consumer preference information,” and (4) that the Board erred in determining Kloba disclosed the required “unique identifier.” We address each in turn.

#### I

M2M argues on appeal that the Board erred in construing the “managing” limitation of independent claims 1 and 20 to not require “management instructions” that are based upon the results of the server’s processing of “consumer usage information.” M2M argues that the Board’s construction is inconsistent with the claim language, the

specification, and the understanding of a person of ordinary skill. We disagree.

The words of a claim “are generally given their ordinary and customary meaning.” *Vitronics Corp. v. Concep-tronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). And the most important tool in determining the meaning of a claim is the claim language itself. *Id.* (“[W]e look to the words of the claims themselves . . . to define the scope of the patented invention.”). The Board correctly recognized that the phrase “based upon the results of processing” modifies “managing,” which the claims define as “sending communications” containing “management instruments.” Given this plain language, the Board correctly determined that the server’s *act* of managing devices by sending communications containing management instructions must be “based on the results of having processed” consumer usage information, rather than, as M2M argues, the content of the management instruction *themselves*. Only if the inventor has clearly used the term in a manner contrary to its plain and ordinary meaning do we depart from its normal usage, *id.*, and no clear disavowal in either the specification or the prosecution history supports deviating from the plain claim language in this case. We therefore agree with the Board’s construction of the “managing” limitation.

Because M2M does not dispute that the asserted prior art discloses the “managing” limitation under the Board’s construction, we therefore affirm the Board’s conclusion that claims 1 and 20 of the ’989 patent would have been obvious over the asserted prior art. M2M raises an additional argument regarding the independent claims of the ’477 patent, which we address in Section II below.

## II

M2M argues that the Board erred in finding that it was collaterally estopped from arguing that Kloba did not disclose “consumer usage information” as required by claims 1 and 20 of the ’477 patent. Collateral estoppel applies if

“(1) a prior action presents an identical issue; (2) the prior action actually litigated and adjudged that issue; (3) the judgment in that prior action necessarily required determination of the identical issue; and (4) the prior action featured full representation of the estopped party.” *Stephen Slesinger, Inc. v. Disney Enters., Inc.*, 702 F.3d 640, 644 (Fed. Cir. 2012). M2M argues that collateral estoppel was inappropriate because the issue was not fully litigated in the ’1892 IPR.

M2M asserts that while it challenged Kloba’s disclosure of “consumer usage information” under materially the same construction as here in its Preliminary Patent Owner Response, it elected not to do so in its Patent Owner Response. We find this to be an understatement of M2M’s arguments made in its Patent Owner Response. In reality, M2M contested Kloba’s disclosure of “consumer usage information” under a *narrower* construction than at issue here. *See Amazon.com v. M2M Sols, Inc.*, IPR2017-01892, Patent Owner Response at 55–64. M2M argued that Kloba does not teach “consumer usage information” “when properly construed” as “information that identifies *the particular* manner in which a consumer has used a consumer device asset.” *Id.* (emphasis added). In its final written decision, the Board noted M2M’s slight change of its construction but nonetheless determined that Kloba disclosed “consumer usage information” under the *broader* construction that M2M had proposed in its Preliminary Patent Owner Response, one that materially tracks the construction in this case: “information identifying the manner in which a consumer has used a consumer device asset.” *See Amazon.com v. M2M Sols, Inc.*, IPR2017-01892 (P.T.A.B. Feb. 7, 2019) at 40–41; *see also Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013) (“Our precedent does not limit collateral estoppel to patent claims that are identical.”). We therefore find that this same issue was actually litigated in the ’1892 IPR and agree with the Board that M2M is collaterally estopped



from arguing that Kloba failed to disclose “consumer usage information” as required by claims 1 and 20 of the ’477 patent.

Because (1) M2M does not dispute that the asserted prior art discloses the “managing” limitation under the Board’s construction, with which we agree, as explained in Section I, and (2) the Board’s finding of collateral estoppel was proper, we therefore affirm the Board’s conclusion that claims 1 and 20 of the ’477 patent would have been obvious over the asserted prior art.

### III

M2M further argues that the Board erred in determining that Kloba discloses “management instructions” based upon the results of “consumer preference information” as required by dependent claims 4, 5, 10, 14, 17, 22, 23, and 25 of both the ’477 and ’989 patents by relying on a new theory not raised in the petitions. Namely, M2M argues that the Board relied *sua sponte* on Kloba’s “delta” (*e.g.*, change) information for the claimed “management instructions.” Amazon argues that the Board relied on *both* delta and non-delta information in determining that Kloba disclosed these limitations. The Board’s analysis as to delta information, however, was only discussed in response to M2M raising it in its Patent Owner Response, while the non-delta information was based on a theory presented in the Petition.

We agree with Amazon. Regardless whether delta information was timely asserted or not, the Board relied on both delta and non-delta information for this limitation. *See, e.g., ’477 Decision*, J.A. 73–95. For example, in the ’477 Decision, the Board found that “Kloba describes . . . instructions generated as a result of processing the deltas *and other information from providers.*” *Id.* at J.A. 76 (emphasis added); *see also id.* at J.A. 77 (discussing portions of Kloba that “do not explicitly refer to delta instructions”). And in the ’989 Decision, the Board did not rely on Kloba

alone, but rather in combination with another reference, Hoyle. Indeed, in responding to M2M’s argument that Kloba’s delta information did not constitute the claimed “management instructions,” the Board concluded that “Patent Owner does not identify anywhere within the Petition that Petitioner actually makes this argument; nor do we find this argument in the Petition.” ’989 *Decision*, J.A. 220. The Board further explained that “Petitioner is not relying solely on the ‘deltas’ in this case to be the ‘management instructions,’” but rather that, “Petitioner relie[d] on the synchronization process more generally.” *Id.* It is that synchronization process, taken together with the teachings of Hoyle, not the delta information, that the Board found satisfied the limitations. *Id.* at J.A. 220–30. This synchronization process theory was presented by Amazon in its Petitions. *Amazon.com v. M2M Sols. LLC*, IPR2019-01204, ’477 Petition, J.A. 396, 399–402; *Amazon.com v. M2M Sols. LLC*, IPR2019-01205, ’989 Petition, J.A. 5191–97, 5201–5203.

We therefore conclude that it is of no consequence whether the Board additionally relied *sua sponte* on delta information for either patent. For this reason, we affirm the Board’s conclusion that claims 4, 5, 10, 14, 17, 22, 23, and 25 of both the ’477 and ’989 patents would have been obvious over the asserted prior art.

#### IV

M2M additionally argues that the Board erred in holding Amazon to a lower standard than necessary in proving that Kloba inherently disclosed the required “unique identifier” of dependent claims 9, 16, 19, 27, and 28–30 of the challenged patents. But M2M bases its argument on a false premise, as the Board did not rely on inherency for Kloba’s disclosure of the “unique identifier.” Indeed, the Board explicitly noted that, “[c]ontrary to Patent Owner’s arguments, inherency is not at issue here.” *Decisions*, J.A. 112, 247. Instead, the Board found that a person of

ordinary skill would have understood Kloba to disclose a client and server in direct communication, without the use of an intermediate router, where said communications would necessarily include the unique IP address of the receiving device. *Id.* at J.A. 109–12, 244–47. The Board found that this unique IP address satisfied the “unique identifier” limitation of the asserted claims. *Id.* at J.A. 112, 247. This finding is not based on inherent disclosure.

Moreover, these findings were supported by substantial evidence. M2M’s expert witnesses admitted that devices can directly connect to a server through the internet without the use of an intermediate router and that Kloba makes no mention of routers. *Id.* at J.A. 111, 246; *Amazon.com v. M2M Sols. LLC*, IPR2019-01204, -01205, Ex. 1021 at 147:13–20, 156:11–20. And none of the Board’s findings on this limitation were seriously disputed by M2M. *See, e.g.*, J.A. 138, (“Patent Owner simply did not challenge Petitioner’s assertion that Kloba teaches wirelessly connecting to an Internet without a router prior to its Rehearing Request.”), 271 (same), 142 (“Patent Owner does not dispute that in the absence of a router connection, Kloba teaches the claims at issue here.”), 275 (same); *Decisions*, J.A. 112 (referencing “Petitioner’s undisputed showing” of Kloba’s disclosure of this limitation), 247 (same). We therefore affirm the Board’s conclusion that claims 9, 16, 19, 27, and 28 of both challenged patents would have been obvious over the asserted prior art.

## V

M2M makes no separate arguments regarding dependent claims 2–3, 6–8, 11–12, 15, 18, 21, 24, 26, and 29–30. *See, e.g.*, Appellant Br. at 2–3. We therefore affirm the Board’s conclusion that these claims of both challenged patents would have been obvious over the asserted prior art.

CONCLUSION

We have considered M2M's remaining arguments but find them unpersuasive. For the foregoing reasons, the decision of the Board is *affirmed*.

**AFFIRMED**