UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC.,
Petitioner,

v.

M2M SOLUTIONS LLC,
Patent Owner.

Case IPR2019-01204
Patent 9,961,477 B2

PATENT OWNER M2M SOLUTIONS LLC'S NOTICE OF APPEAL

Pursuant to 37 C.F.R. §§ 90.2(a) and 90.3(b)(1), and 35 U.S.C. §§ 141, 142, and 319, timely notice is hereby provided that Patent Owner M2M Solutions LLC ("M2M") hereby appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered by the Patent Trial and Appeal Board (the "Board") on January 20, 2021 (Paper No. 43) in *Inter Partes* Review IPR2019-01204, and from all other underlying or supporting orders, decisions, rulings, and opinions rendered therein that are adverse to Patent Owner, specifically including without limitation the Board's Decision Denying Request for Rehearing entered on September 7, 2021 (Paper No. 50). Copies of said Final Written Decision and Decision Denying Request for Rehearing are attached hereto.

For the limited purpose of providing the information specified in 37 C.F.R. § 90.2(a)(3)(ii), M2M states that anticipated issues to be raised on appeal include, but are not limited to: (i) whether the Board erred in determining that claims 1-30 of U.S. Patent No. 9,961,477 (the "'477 patent") were shown by a preponderance of the evidence to be unpatentable under 35 U.S.C. § 103; (ii) whether the Board erred in its construction and/or application of claim language appearing in independent claims 1 and 20 of the '477 patent to prior art reference U.S. Patent No. 6,421,717 to Kloba ("Kloba"); (iii) whether the Board erred in its construction and/or application of claim language appearing in dependent claims 4, 5, 9, 10, 14, 16, 17, 19, 22, 23, 25, 27, and 28 of the '477 patent to Kloba; (iv) whether the

Board erred in placing extensive *sua sponte* reliance on invalidity theories and ostensible supporting evidence that were never timely raised by Petitioner itself in the underlying IPR proceedings; (v) whether the Board erred in making any finding or determination supporting or relating to any of these aforesaid issues; and (vi) whether the Board erred by failing to properly consider and apply evidence of record, including based upon a misapplication of the doctrine of collateral estoppel.

In accordance with 37 C.F.R. § 90.2(a), M2M is concurrently filing this Notice of Appeal with the Board and with the Director of the United States Patent and Trademark Office, and also serving the same on Petitioner Amazon.com, Inc. In addition, M2M is concurrently filing this Notice of Appeal, along with the required docketing fees, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit.

Respectfully submitted,

Dated: November 5, 2021

By: /Andrew C. Ryan/

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CERTIFICATE OF FILING AND SERVICE

The undersigned certifies that on this November 5, 2021, a true and correct copy of the foregoing Notice of Appeal was filed electronically with the Board in IPR2019-01204 via the Patent Trial and Appeal Board's End to End (E2E) System.

The undersigned further certifies that on this November 5, 2021, the original version of the foregoing Notice of Appeal was filed via hand delivery with the Director of the United States Patent and Trademark Office at the following address:

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel
Madison Building East, 10B20
600 Dulany Street
Alexandria, VA 22314-5793

The undersigned further certifies that on this November 5, 2021, a true and correct copy of the foregoing Notice of Appeal, along with the required docketing fees, were filed electronically via CM/ECF with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

The undersigned further certifies that on this November 5, 2021, a true and correct copy of the foregoing Notice of Appeal was served pursuant to 37 C.F.R. § 42.6(e) via electronic mail (by prior agreement of the parties) on counsel of record for Petitioner Amazon.com, Inc., at the following addresses:

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Paper 43
Date: January 20, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC.,
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M2M SOLUTIONS LLC,
Patent Owner.

IPR2019-01204
Patent 9,961,477 B2

Before KARL D. EASTHOM, DAVID C. MCKONE, and FREDERICK C. LANEY, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Amazon.com, Inc. ("Petitioner") filed a Petition to institute an *inter partes* review of claims 1–30 (the "challenged claims") of U.S. Patent No. 9,961,477 B2 (Ex. 1001, the "'477 patent"). Paper 2 ("Petition" or "Pet."). M2M Solutions LLC ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp."). Prior to institution, the parties submitted preliminary briefing addressing the Board's discretion to deny institution. *See* Paper 11 ("Pet. Prelim. Reply Br."); Paper 13 ("PO Prelim. Sur-Reply").

The Board instituted an *inter partes* review of the challenged claims pursuant to 35 U.S.C. § 314. Paper 14 ("Inst. Dec."). After institution, Patent Owner filed a Patent Owner Response (Paper 22, "PO Resp."); Petitioner filed a Reply (Paper 25); and Patent Owner filed a (corrected) Sur-reply (Paper 31, "Sur-reply" or "PO Sur-reply").[1] The parties then presented oral arguments via a (video) Hearing (August 12, 2020), and the Board entered a Hearing transcript into the record. Paper 40 ("Tr.").

Subsequent to the Hearing, the Board authorized (Paper 37) supplemental briefing regarding a collateral estoppel issue premised on final written decisions on three related patents recently affirmed by the Federal Circuit in *M2M Solutions LLC v. Amazon.com, Inc.*, 825 F. App'x 893 (Fed. Cir. 2020) (Fed. Cir. R. 36) (nonprecedential), as discussed further below. Paper 38 ("PO Supp. Br."); Paper 39 ("Pet. Supp. Br."); Paper 41 ("PO Supp. Reply Br."); Paper 42 ("Pet. Supp. Reply Br.").[2]

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[1] *See* Ex. 2032 (Board email authorizing the filing of the corrected Sur-reply).

[2] Pursuant to an email request by Patent Owner, the Board extended the due dates for the supplemental briefing relative to the due date originally specified by the Order (Paper 37). *See* Ex. 3002 (Email chain).

For the reasons set forth in this Final Written Decision pursuant to 35 U.S.C. § 318(a), we determine that Petitioner demonstrates by a preponderance of evidence that the challenged claims are unpatentable.

A. Real Party-In-Interest

Petitioner identifies Amazon.com, Inc. as the real party-in-interest. Pet. 2.

B. Related Proceedings

Patent Owner asserted the '477 patent and four related patents in *M2M Solutions LLC v. Amazon.com, Inc.*, Case No. 1:17-cv-00202-LPS-CJB (D. Del.) and *M2M Solutions LLC v. Amazon.com, Inc.*, No. 1:18-cv-01532-LPS-CJB (D. Del.). Pet. 2; Paper 4, 2. Related proceedings also include the following PTAB proceedings: *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01891, Paper 32 (PTAB Feb. 7, 2019) (Final Written Decision); *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01892, Paper 32 (PTAB Feb. 7, 2019) (Final Written Decision) (the "'1892 FWD" or the "'1892 IPR"); *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01893, Paper 32 (PTAB Feb. 7, 2019) (Final Written Decision); *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01894, Paper 8 (PTAB Feb. 8, 2018) (Denial of Institution); *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01895, Paper 30 (PTAB Feb. 7, 2019) (Final Written Decision); *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01896, Paper 35 (PTAB Feb. 7, 2019) (Final Written Decision); *Amazon.com, Inc. v. M2M Solutions LLC,* IPR2019-01205 (concurrent decision to institute). *See* Pet. 2–3; Paper 4, 2–3.

As indicated above, Patent Owner appealed three related final written decisions, the '1892 FWD and the final written decisions in IPR2017-01891

and IPR2017-01893. *See* Ex. 1204. The Federal Circuit affirmed the three final written decisions without issuing an opinion. *See M2M Solutions LLC v. Amazon.com, Inc.*, 825 F. App'x 893 (Fed. Cir. 2020) (Fed. Cir. R. 36) (nonprecedential) (the "M2M Federal Circuit Decision"). The '477 patent and the patent challenged in the '1892 IPR, U.S. Patent No. 8,577,358 B2 (the "'358 patent"), share a common specification.

C. The '477 Patent

The '477 patent, titled "System and Method for Remote Asset Management," describes "[a] remote asset management system" including "a network of programmable wireless modules, each having an antenna and an identification module and configured to communicate via a radio communication protocol" and "a plurality of assets each linked to one of the wireless modules and configured to be managed by the linked wireless module." Ex. 1001, code (54), (57). A remote system server service platform "receive[s] remote asset data from the wireless modules, pass[es] the remote asset data to and from the wireless modules, send[s] messages to at least one of the wireless modules, monitor[s] the wireless modules by requesting and receiving current mode information, and remotely program[s] the wireless modules." *Id.* at (57). Figure 2, reproduced below, illustrates applications controlled by wireless modules in an asset management system.

FIG. 2

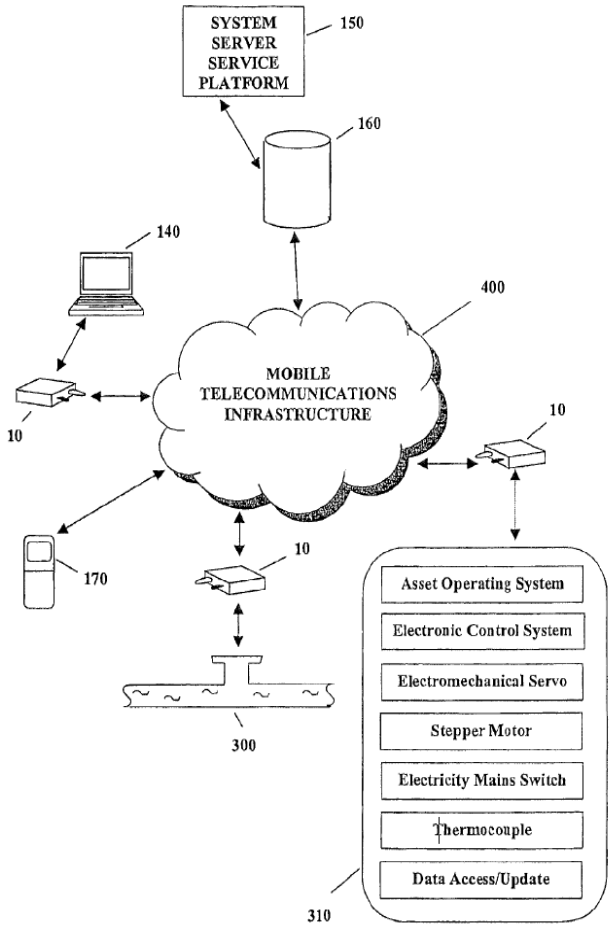


Figure 2 illustrates different applications 310 controlled by wireless module 10 in a mobile telecommunications network operating according to the GSM standard. *Id.* at 15:57–60.

In Figure 2, wireless modules 10 communicate via mobile telecommunications infrastructure 400. Ex. 1001, 15:66, 16:1–3. Mobile phone or message-enabled wireless terminal 170 communicates with specific wireless module 10 or with system server service platform 150 via point of inter-connection 160 with the mobile telecommunications infrastructure 400. *Id.* at 15:66, 16:3–7. In one example, laptop PC 140a manages a small number of wireless modules. *Id.* at 16:8–10. In other examples, "[t]he wireless module (10) is capable of controlling many system

operation variables of the associated asset such as an asset operating system, an electronic control system, an electromechanical servo, a stepper motor, an electricity mains switch, a thermocouple and a means to access or update data (310)." *Id.* at 16:11–16. In another example, "[t]he wireless module has the capability to be integrated with a utilities meter such as a water flow meter (300) wherein water usage data can be remotely accessed from the wireless module integrated with the utility meter and forwarded to the water board." *Id.* at 16:17–21.

Other examples follow:

> the remote programming of consumer devices such as solid state video recorders and other household equipment including heating systems and the like wherein the remote server may monitor the scheduling of preferred television broadcasts according to stored user preferences and forward messages of upcoming programmes to the user and organise the programming of a home video recorder in response to receiving messages back from the user,

Ex. 1001, 10:64–11:4;

> a mobile phone or similar PDA device such as for the activation or change of highway traffic speed indicators, wherein the wireless module receives data from authorised personnel or systems to change the display of the speed indicator to suit changing driving conditions due to an accident or change in weather,

id. at 11:11–16; and

> an improved remote asset management system, which gathers data according to the use of a particular asset and forwards this data to a remote server for the purpose of optimising the asset and for designing an appropriate range of services to support the said use of the asset wherein the wireless module may comprise a display having a range of options such as pull down menus for internet or dedicated service access and wherein these might be

> improved if the range of options were prioritised automatically according to the way the user preferred to use the device or in the order of access of mostly used features,

id. at 11:41–52.

D. The Challenged Claims

Petitioner challenges claims 1–30 of the '477 patent. Pet. 1. Claims 2–19 depend from independent claim 1. Claims 21–30 depend from independent claim 20. Independent claims 1 and 20 recite methods with materially similar limitations for purposes of this trial. Claim 1, reproduced below, illustrates the subject matter of the challenged claims:

> 1. [Element 1[Preamble]] 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:
>
> [Element 1[a]] providing a remote computer server platform connected to the one or more communications networks, the remote computer server platform configured to execute software applications for monitoring and managing the plurality of consumer device assets, [Element 1[b]] each of said assets being registered with the remote computer server platform;
>
> [Element 1[c]] receiving at the remote computer server platform communications sent from each of the plurality of consumer device assets containing operational status information indicative of an operational status of 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;

> [Element 1[d]] 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;
>
> [Element 1[e]] 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;
>
> [Element 1[f]] 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
>
> [Element 1[g]] wherein the aforesaid communications received by and sent from the remote computer server platform are transmitted over the one or more communications networks and comprise at least one selected from the group consisting of General Packet Radio Service (GPRS) data messages, Enhanced Data rates for GSM Evolution (EDGE) data messages, and other wireless packet switched data messages.

Ex. 1001, 26:5–61 (information supplied by Petitioner).

E. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–30 would have been unpatentable on the following grounds.

Claim(s) Challenged	35 U.S.C. §	References
1–6	103(a)	Kloba,[3] Multer[4]
7, 14, 16, 17, 19–25	103(a)	Kloba, Multer, Loughran[5]
8–12, 15, 18, 26–30	103(a)	Kloba, Multer, Loughran, Fong[6]
13	103(a)	Kloba, Multer, Loughran, Fong, Chow[7]

Pet. 4–5. Petitioner relies on the Declaration of George Kesidis, Ph.D. (Ex. 1005). Patent Owner relies on the Declarations of Brian A. Berg (Ex. 2002 (filed with the Preliminary Response)), (Ex. 2029 (filed with the Response)).

II. ANALYSIS

A. Collateral Estoppel Background

As indicated above, the Board ordered preliminary briefing to address Patent Owner's request to the Board to deny institution under 35 U.S.C. §§ 314(a) and 325(d) under the Board's discretionary authority. Patent Owner primarily grounded its request for the Board to deny institution on collateral estoppel assertions, citing the Board's final written decisions in three related cases, but primarily the '1892 FWD, which involved a related patent as indicated above. *Supra* § I.A. As also indicated above, after the M2M Federal Circuit Decision that affirmed the three final written decisions, the Board ordered additional briefing on the issue of collateral estoppel.

[3] Kloba et al., US 6,421,717 B1, issued July 16, 2002 (Ex. 1006).
[4] Multer et al., US 6,671,757 B1, issued Dec. 30, 2003 (Ex. 1007).
[5] Loughran et al., US 2002/0129107 A1, published Sept. 12, 2002 (Ex. 1008).
[6] Fong, US 7,197,011 B2, issued Mar. 27, 2007 (Ex. 1010).
[7] Chow et al., US 2002/0191557 A1, published Dec. 19, 2002 (Ex. 1009).

Prior to the M2M Federal Circuit Decision, the Board denied Patent Owner's request to exercise the Board's discretion under 35 U.S.C. §§ 314(a) and 325(d) to deny institution, stating as follows:

> The '1892 IPR represents the primary basis for Patent Owner's discretionary denial arguments. [Prelim. Resp. 22–32]. In the '1892 IPR, the Board held claims 1–30 of U.S. Patent No. 8,577,358 B2 (the "'358 patent") unpatentable for obviousness based on the same prior art as involved here. *See* '1892 FWD 2–4. *The parties agree the '1892 FWD and the proceeding here involve the same material issues, as discussed further below*. As noted above, Patent Owner appealed the decision in the '1892 FWD to the Federal Circuit.

Inst. Dec. 9 (emphasis added).

In deciding not to exercise discretion to deny institution, we quoted Patent Owner as characterizing the instant trial as involving "*the exact same analysis and trial*" as involved in the '1892 IPR as follows:

> Petitioner here has simply resubmitted its prior petition [from the '1892 IPR challenging the '358 patent] with the same art and "mirror image" arguments, *asking the Board to repeat the entire prior trial, analysis and opinion*. *Having the Board repeat the exact same analysis and trial is precisely the inefficient and wasteful burden that the Board has looked to prevent*. The Board should decline to institute a duplicative IPR here, and instead allow the parties to address the validity of the '477 patent in the pending District Court action aided by the Board's Final Written Decision on the '358 patent.

Inst. Dec. 9–10 (quoting Prelim. Resp. 31) (emphasis added).

We further noted that "Patent Owner has appealed the '1892 FWD to the Federal Circuit," and quoted Patent Owner's argument that "[r]equiring the parties to litigate those issues simultaneously before the Federal Circuit and the Board would be overly burdensome to the Patent Owner." Inst. Dec. 10 (quoting Prelim. Resp. 32). Patent Owner stated that "[*t]he parties will*

address the same issues, particularly claim construction before the Federal Circuit that they would need to address in any new IPR here." Prelim. Resp. 32 (emphasis added).

We noted that Petitioner similarly contended that "the claims of the '477 patent challenged in this IPR recite nearly identical subject matter as claims that the Board has already invalidated in a prior IPR involving a related patent (IPR2017-01892, 'the '[1892] IPR')." Inst. Dec. 11 (quoting PO Prelim. Sur-reply 1). And "[a]ccording to Petitioner, Patent Owner 'attempts to capitalize on this similarity [to the '1892 IPR] by arguing that the Board should exercise its discretion to *deny* institution, thereby sparing claims that are invalid for precisely the same reasons as those the Board articulated in the '[1892] IPR.'" *Id.* (quoting PO Prelim. Sur-Reply 1). We also noted that "Petitioner also contends Patent Owner 'asks the Board to hold that a patent owner can avoid adverse Board determinations simply by filing continuation applications *with claims that are insubstantially different from invalidated ones*. The Board should not allow [Patent Owner] to game the patent system in this way.'" *Id.* (quoting PO Prelim. Sur-reply 1) (emphasis added).

We determined initially that "the parties agree that the instant case and the '1892 IPR involve different patents albeit with materially similar issues, including the same prior art, materially similar claims, and materially similar arguments." Inst. Dec. 11.

We also made the following observations:

> Based on this similarity of claims, prior art, and issues, as indicated above, Patent Owner refers to "mirror image" arguments (Prelim. Resp. 31), similarly characterizing the instant Petition as a "mirror[]" of the '1892 petition:

> Petitioner admits that the current Petition essentially mirrors its prior Petition against related U.S. Patent 8,577,358 ("the '358 patent") [in the '1892 IPR], the results of which are now on appeal to the Federal Circuit. The appeal is likely to be resolved before a final written decision would issue in this matter, and *simultaneous litigation of the same issues before the Federal Circuit and the Board would be inefficient and wasteful of the Board's resources*.

Inst. Dec. 13 (quoting Prelim. Resp. 2) (emphasis added).

We further initially observed that

> [a]s the parties argue, the preliminary record here shows that the two proceedings involve materially similar issues that the Federal Circuit likely will rule upon. *In addition to materially similar prior art, claims, arguments, and claim construction, the '477 patent and the '358 patent share a common ancestor application*. *Compare* Ex. 1001, code (63), *with* '01892 IPR, Ex. 1002, code (63).

Inst. Dec. 13 (emphasis added).

We also initially determined as follows:

> In other words, it appears most likely the Federal Circuit will provide guidance (*if not serve as basis for collateral estoppel*) here (*based on the materially similar issues and claims*) before the *inter partes* trial ends and before the district court trial ends in a decision on the validity of one or more '477 patent claims. Instigating efforts anew in the district court as compared to pursuing a familiar path here with a controlling Federal Circuit decision probably forthcoming would foster inefficiency.

Inst. Dec. 14 (emphasis added).

We stated that "[g]iven the prosecution history record as devoid of an explanation about the relevance of the '1892 IPR, where both parties agree the two *inter partes* reviews present materially similar issues, and with a

looming Federal Circuit decision potentially controlling the outcome here, we decline to exercise our discretion and deny institution." Inst. Dec. 15.

Given that the parties and the Board agreed prior to institution that a Federal Circuit decision probably would serve as a basis for collateral estoppel at some point in this *inter partes* trial, the stated position of the parties colors the findings as outlined below that collateral estoppel applies to materially similar claim limitations here. Nevertheless, as discussed further below, Patent Owner now argues, for various reasons, that collateral estoppel does not apply. *See* PO Supp. Br. 5–20. Petitioner argues that estoppel applies to various claim limitations and issues, and even where estoppel might not apply, the '1892 FWD provides guidance. *See* Pet. Supp. Br. 4–19.

As our reviewing court has explained, collateral estoppel precludes a party from relitigating an issue 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.

VirnetX Inc. v. Apple, Inc., 909 F.3d 1375, 1377 (Fed. Cir. 2018) (quoting *Stephen Slesinger, Inc. v. Disney Enters., Inc.*, 702 F.3d 640, 644 (Fed. Cir. 2012)).

B. Claim Construction

Petitioner filed the Petition after November 13, 2018. Accordingly, we apply the same claim construction standard used to construe the claim in a civil action under 35 U.S.C. § 282(b), as articulated in *Phillips v. AWH*

Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2019).

1. Preambles of claims 1 and 20

The preamble of claim 1 follows:

> 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:

The preamble of claim 20 includes materially similar recitations.

As explained below (§ II.F.1.b), collateral estoppel applies to the issue of whether Kloba teaches the nonvolatile memory even if the preamble carries weight. Patent Owner argues that, in general, the different claim construction standards, *Phillips* here, and the broadest reasonable interpretation standard in the '1892 IPR, render collateral estoppel inapplicable. *See* PO Supp. Br. 7.

But Patent Owner does not contend specifically that the *Phillips* standard, as opposed to the broadest reasonable standard as applied in the '1892 FWD, renders the preamble limiting. PO Supp. Br. 10. Rather, Patent Owner argues the claim construction of the preamble was not necessary to the prior panel's judgment "because the prior [panel] also made the alternative independent determination that Kloba/Multer satisfies the 'nonvolatile memory' preamble language even if it were treated as being a required limitation." *Id.* (citing Ex. 1024, 193–98)). As discussed below (§ 2.F.1.b), however, Patent Owner did not appeal the preamble issue in the

M2M Federal Circuit Decision. Accordingly, whether the prior panel made alternative determinations does not matter, because as explained below (§ 2.F.1.b), the "independent determination that Kloba/Multer satisfies the [exact same] 'nonvolatile memory' preamble language" (PO Supp. Br. 10) prevents Patent Owner from relitigating the issue under principles of collateral estoppel.

In other words, as discussed below (§ II.f.1.b), the '1892 IPR "presents" the "identical issue" of whether Kloba satisfies the exact same nonvolatile memory language; (2) the '1892 IPR "actually litigated and adjudged that issue;" (3) the '1892 FWD judgment "necessarily required determination of the identical issue; and (4) the prior action featured full representation of the estopped party" by the same parties as involved here. *See VirnetX,* 909 F.3d at 1377 (quoting *Stephen Slesinger,* 702 F.3d at 644).

Even if collateral estoppel does not apply to the "independent determination" noted, the different claim construction standards, arguments, and evidence do not dictate a different outcome here with respect to the claim construction of the preamble. The prior panel's decision addresses the preamble issue by citing to factors applied in Federal Circuit precedent under the *Phillips* standard. '1892 FWD 11–16. As a court does under the *Phillips* standard, the Board relied on the specification and considered extrinsic evidence in the form of general statements by Petitioner about the scope of the claims in related litigation. *See id.* at 15–16. We adopt and incorporate by reference the claim construction set forth in the '1892 FWD. *See* '1892 FWD 11–16.

As noted above (§ II.A), the '477 patent and the '358 patent challenged in the '1892 IPR share a common specification. As set forth

in'1892 FWD, "the preamble does not limit the claims." '1892 FWD 12 (citing *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1236 (Fed. Cir. 2017)).

> However, a preamble may be limiting if "it recites essential structure or steps"; claims "depend[] on a particular disputed preamble phrase for antecedent basis"; the preamble "is essential to understand the limitations or terms in the claim body"; the preamble "recit[es] additional structure or steps underscored as important by the specification"; or there was "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art."

Id. (quoting *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (citations omitted)). None of these considerations exist here.

Claims 1 and 20 affirmatively refer to "the stored data content files," but not to nonvolatile memory. Also, nonvolatile memory does not represent essential structure for any of the recited steps of the method and does not represent an essential feature for understanding the limitations in the claim body. The type of memory that stores the files does not play any role in performing the general steps recited in the claims. *See* '1892 FWD 11–16. Notably, claims 1 and 20 recite methods *for operating a remote computer server platform* and its stated purpose is to provide a range of consumer services for a plurality of consumer device assets. These method claims do not require any of steps recited in the claims to be performed by the nonvolatile memory on the consumer device asset; nor does any step of the claimed method include any specific operations for the nonvolatile memory. Instead, each of the recited steps are performed by a remote computer server platform, which is separate and apart from the nonvolatile memory residing on the consumer device asset. The recitation of "the stored

display data content files" in the body of the claim, while referring back to display data content files stored in the memory of the consumer asset, merely describes what the claimed "management instructions" are *for* (to cause a modification automatically to the display data content files in the preamble).

Just like the '358 patent involved in the '1892 FWD, the '477 patent does not describe the type of memory that stores data content files in the asset, let alone state that the memory may, should, or must be nonvolatile memory. *See* '1892 FWD 11–16. Figure 1 of the '477 patent illustrates wireless module 10, which may be integrated with an asset, as including memory module 70. Ex. 1001, 13:53–57. The '477 patent states that memory module 70 stores subscriber data and GPS data, but it does not provide any details regarding the structure or type of memory in the memory module. *Id.* at 14:10, 15:8–11 (stating GPS "data is stored in the memory module (70) for the purpose of creating a tracking log of the movement of the device"). The specification does not identify nonvolatile memory or describe it as important to the invention. Neither party identifies or argues a clear reliance on nonvolatile memory in the preamble during prosecution to distinguish the claimed invention from the prior art. Rather, the Examiner found a nonvolatile memory feature for storing data files for display to be known in the prior art. *See* Ex. 1004, 101.

Even though the specification does not explicitly disclose a nonvolatile memory, Patent Owner also argues that a "POSITA would have understood it to be important for numerous reasons including, for example, nonvolatile memory is required to store the assets' software and various forms of data disclosed in the specification, including GPS data, vehicle

service history data, and others." PO Sur-reply 10. Contrary to this argument, "*the sole claimed embodiment taught by the specification*" relied upon by Patent Owner (PO Resp. 11–12 (quoting Ex. 1001, 4:28–38 (emphasis added)) as supporting managing limitation 1[f] (*see infra* § II.B.4), which recites the "stored display data content files," does not mention any type of memory. And nothing in the passage indicates that gathering data of a device used by a consumer requires nonvolatile memory to store "display data content files." Similarly, claim 1 does not require any type of GPS data, vehicle service data, or any other software assets data that requires a nonvolatile memory. *See* Ex. 1001, 4:28–38. The breadth of claim 1 and Patent Owner's characterization of a sole claimed embodiment, which does not describe any type of memory or imply any importance for such a memory, indicates that the specification does not attach importance to the type of memory.

In sum, because "nonvolatile memory," as recited in the preambles of claims 1 and 20, does not represent essential structure, does not represent a necessary term for understanding the limitations of the claims, the specification does not describe it as important, and Patent Owner did not rely upon it during prosecution to distinguish the claimed invention from the prior art, "nonvolatile memory" does not limit the claims. Therefore, the term "nonvolatile memory for storing files of data content for display" in the preambles of independent claims 1 and 20 does not limit the scope of the claims.

Based on the foregoing discussion, the preamble is not limiting as to the type ("nonvolatile") of memory. Even though a different claim

construction standard applies here, Patent Owner's arguments do not present a sufficient reason to deviate from the claim construction in the '1892 FWD.

2. "Consumer Usage Information"

Limitation 1[d] in claim 1 recites "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." Ex. 1001, 26:31–35. Independent claim 20 recites a materially similar limitation.

Petitioner submits that a "[c]onstruction of . . . 'consumer usage information' is not necessary . . . because Patent Owner has amended the '477 patent's claims to specifically recite the nature of the corresponding information, and that language is not ambiguous." Pet. 9 n.3. Patent Owner disagrees with Petitioner, "because when viewed in isolation the claim language is actually inconclusive regarding the degree of specificity with which the 'consumer usage information' must identify for the server 'a manner in which a consumer user has used the particular sending consumer device asset.'" PO Resp. 2. Patent Owner submits that "[t]his open issue has given rise to a claim construction dispute as to the proper meaning of 'consumer usage information' which the Board now needs to resolve given its potential materiality to the controversy presented in this proceeding." *Id.*

Patent Owner construes "consumer usage information" in claim 1 of the '477 patent to mean "**information that identifies the *particular* manner in which a consumer user has used the particular sending consumer device asset.**" PO Resp. 4 (italics added).

In urging the above construction, Patent Owner relies on the same above-discussed "*sole claimed embodiment taught by the specification*" (PO Resp. 11–12 , an "optimising" "pull down menus" "example":

> In a further area of application, consumers would benefit from a system, which gathered data according to the use of a particular asset and forwarded this data to a remote server for the purpose of *optimising* the asset and for designing an appropriate range of services to support the said use of the asset. *For example*, any communication device which comprised a range of options such as *pull down menus* for internet or dedicated service access might be improved if the range of options were prioritized automatically according to the way the user preferred to use the device or in the order of access of mostly used features.

Ex. 1001, 4:28–38 (emphasis added); *accord id.* at 11:41–52; *see* PO Resp. 2–3 (quoting the above passage as the only specific supporting embodiment for the claimed "consumer usage information").

This passage generally describes "gather[ing] data according to the use of a particular asset . . . for the purpose of optimi[z]ing the asset." Ex. 1001, 4:28–38. But it does not describe how or what data it gathers. Patent Owner contends that this lack of detail in description presents "superfluous issues . . . wholly outside the scope of the claims." PO Resp. 4 n.1. But without such detail, the gathered "data" may include some "data" underlying an instance in which a user informs the computer that the user selected a certain option or moved the computer to a certain location. The specific "example" of "pull down menus" does not necessarily limit the more generic "gathered data" that precedes the "example" in the passage quoted above.

Nevertheless, Patent Owner explains that in the above embodiment,

> [t]he asset forwards "consumer usage information" about itself (*i.e.*, "data gathered according to the use of a particular asset") to a remote server expressly "for the purpose" of allowing that

> information to be utilized by the server *for determining what optimizing modifications should be made to the asset* that would "support the said use of the asset" by the consumer. After taking account of such information, the server is then able to automatically prioritize the range of pull-down menu options on the device "according to the way the [consumer] user preferred to use the device or in the order of access of [his] mostly used features."

PO Resp. 3 (second emphasis added). According to Patent Owner, "the server could achieve that result [i.e., 'determining what optimizing modifications should be made to the asset'] only if the 'consumer usage information' it received from the asset was sufficiently detailed to identify the *particular manner* in which the consumer had previously been using the device's drop-down menu options." *Id.* (citing Ex. 2029 ¶¶ 29–31).

But even if the disclosed example requires knowing the particular manner of use so that the server can *optimize* an asset, claims 1 and 20 do not require optimizing an asset. In other words, claims 1 and 20 are broader than the example in that respect. Also, claims 1 and 20 do not recite a particular manner, rather they generally recite "consumer usage information identifying a manner in which a consumer user has used the particular sending consumer device asset." In other words, claims 1 and 20 do not require identifying a particular manner of asset use so that the "server [can] automatically prioritize the range of pull-down menu options on the device." *See* Ex. 1001, 4:28–38. Rather, claims 1 and 20 more generally require "one or more assets to be automatically modified" instead of optimized or prioritized. Therefore, claims 1 and 20 suggest a more generalized link between the manner of asset use and the modification of the asset.

Other examples described in the '477 patent support a general use of assets, including monitoring assets for location and sending messages to assets. For example, the '477 patent states,

> it would be beneficial if a remote asset management solution existed which could determine the location of the computer, and[/]or change the operational condition of the computer and its related power supply and or render the computer unusable from a remote location by making use of data messages transmitted to the computer from a remote server. Such a solution would both help to locate the computer remotely and prevent unauthorised access of stored data. Also, and in general, such a solution would enable a company to trace the whereabouts of its computer workstation inventory automatically by sending requests for each to return its current GPS coordinate.

Ex. 1001, 3:6–17. The tracking of operational conditions or location of a computer asset as described in this quoted passage does not require a particular manner of use of the computer.

Patent Owner refers to this passage as "irrelevant to construing 'consumer usage information' because it fails to disclose any information identifying a consumer's *manner of using* the particular sending device asset." PO Resp. 7 n.3. To the contrary, as Petitioner argues, this passage and others describe how a company can trace the various locations of a computer and its operational condition, signifying that "manner" includes a user's manner of using a computer at one location versus using it at another location (including for a different amount of time). *See* Reply 6–7 (citing Ex. 1001, 3:5–17, 4:61–5:6, 5:19–27, 7:36–45, 8:5–17).

As Petitioner also points out, the '477 patent also describes an "object of the present invention" as generally "monitoring the use of the computer." Reply 6 (quoting Ex. 1001, 9:28–34). At the cited passage, the '477 patent states that

> [i]t is a further object of the present invention to provide an improved remote asset management system, which comprises the means to communicate with a wireless module associated with a computer for the purpose of remotely monitoring the use of the computer and[/]or for sending data to the computer for the purpose of changing the performance of the computer.

Ex. 1001, 9:28–34. This passage generally describes "monitoring the use of the computer," which provides some support for the claimed "consumer usage information identifying a manner in which a consumer user has used the particular sending consumer device asset." The passage also implicates the claimed "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," because it generally describes "the means to communicate with a wireless module associated with a computer for the purpose of remotely monitoring the use of the computer and[/]or for sending data to the computer for the purpose of changing the performance of the computer." *See id.* In other words, this passage does not describe optimizing computer assets and generally embraces the language of claims 1 and 20 without requiring an identification of a "particular manner" that a consumer uses a computer asset.

Therefore, we decline to read in "the particular manner" requirement into the claims. Patent Owner presented similar arguments in the '1892 IPR. In that case, Patent Owner relied upon the same "pull down menus" option that Patent Owner relies upon here. Similar to our determination here, the panel determined as follows: "[T]he ['pull down menus'] example to which Patent Owner cites describes gathering data 'according to the use of a particular asset,' not the *particular* use of that asset." '1892 FWD 17

(quoting the "pull down menus" example as described at '1892 IPR, Ex. 1002, 3:60–4:3)). As the panel in the '1892 IPR determined, "[t]he passage on which Patent Owner relies . . . does not support Patent Owner's narrow construction because it merely describes a desired result at a high level of generality and provides little detail as to how an asset would collect and use data on particular consumer usage." *Id.* at 18. As the panel in the '1892 IPR also determined, the passage suffers from "the same deficiencies" that Patent Owner describes with respect to other embodiments, namely, the following:

> Patent Owner points to no description in its example (['1892 IPR,] Ex. 1002, 3:60–4:3) of the pull-down menu data being used consistent with the other claimed aspects of consumer usage information, such as being communicated automatically as a result of a preprogrammed conditions or instructions, being processed by the server, or management instructions being communicated based on such processing.

'1892 FWD 20 (citing the same pull down menus example as involved here). Patent Owner argues that other passages in the specification that "fail to disclose information that a monitored 'consumer device asset' is automatically sending to the server about its own usage by a consumer as the '477 claims expressly require" are "irrelevant." PO Resp. 6 (citing a utility meter example and others). However, while none of the passages in the '477 patent specification track the claim language in detail, they shed some light on the meaning of consumer usage information.

Accordingly, the plain language of the claims governs the construction, under the *Phillips* standard and the broadest reasonable standard applied in the '1892 FWD. Similar to the determination in the '1892 FWD under the broadest reasonable standard, on this record under the

Phillips standard, we interpret "consumer usage information" as information "identifying a manner in which a consumer user has used the particular sending consumer device asset." *See* '1892 FWD 22.

3. "Management Instructions"

Claims 1 and 20 recite "management instructions." Ex. 1001, 26:50–51, 29:67–30:1. Petitioner contends that "management instructions" means "commands for a device asset to perform particular actions." Pet. 10 (citing Ex. 1005 ¶¶ 100–103). Patent Owner contends that it "disagrees with Petitioner's proposed construction of the discrete term 'management instructions,' *but the Board need not construe that term because it is immaterial to the patentability determinations herein*." PO Resp. 7 n.4 (emphasis added).

Patent Owner also notes that "[t]he parties likewise agree that as to those specification passages describing wireless 'data message' transmissions sent by the server for purposes of modifying device assets, [a person of ordinary skill in the art (POSITA)] would understand such 'data' as comprising 'management instructions.'" PO Resp. 10 n.5 (citing Ex. 1005 ¶ 102; Pet. 9–10; Ex. 1001 10:32–38, Fig. 4, Box 7, 23:17–20, 22:55–61, 3:5–12, 6:9–42, 7:36–45, 9:1–20, 13:10–13, 23:8–12). This argument indicates that management instructions may include "data" as a "command" in some circumstances, for example when "sent by the server for purposes of modifying device assets." *See id.* Patent Owner also argues that "Patent Owner agrees with Petitioner's assessment that the specification discloses a 'wide range' of 'various examples of instructions sent from a server that command devices to perform actions that result in a service to consumers.'" PO Resp. 9 (citing Ex. 1005 ¶ 102; Pet. 9).

In the '1892 FWD, Petitioner advanced the same construction it advances here, and Patent Owner contended that Petitioner's construction impermissibly *narrows* the term. '1892 FWD 10. Accordingly, "management instructions" includes Petitioner's construction wherein "commands for a device asset to perform particular actions" may include what Patent Owner urges, namely data or other information sent by the server for purposes of modifying device assets.

Therefore, we adopt, as supported by the record, Petitioner's proposed construction as supplemented by Patent Owner's inclusive interpretation regarding data instructions above. No good reason exists to refine Petitioner's proposed construction explicitly given that Patent Owner characterizes the construction thereof as "immaterial to the patentability determinations here." PO Resp. 7 n.4; *see Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

4. *Limitation 1[f]: "Managing . . . 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 . . . management instructions that cause the stored display data content files of . . . assets to be automatically modified so as to provide a consumer service"*

Claim 1's limitation 1[f] materially tracks a similar "managing" limitation in independent claim 20. The Petition states that the "managing" limitation requires that "the *act* of managing/sending—not the content of the

management instructions—is 'based upon the results of having processed at least some of the received consumer usage information,'" and does not require that "the server sends management instructions with *content* that is based upon the received consumer usage information"; that is, the claim limitation does not require that "the *content* of the management instructions be based on that [consumer usage] information." Pet. 11–13 (citing Ex. 1005 ¶¶ 104–110).

In response, Patent Owner urges a narrower claim construction than that urged by Petitioner. Under its construction, Patent Owner contends that a "POSITA viewing the intrinsic record as a whole would understand these claim elements as requiring that the claimed 'management instructions' themselves need to be based upon the results of the server's processing of at least some of the received 'consumer usage information.'" PO Resp. 8 (citing Ex. 2029 ¶¶ 40–41). According further to Patent Owner, "[u]nder Petitioner's [contrary] reading, these claim elements ostensibly fail to require 'management instructions with content that is based upon the received consumer usage information.'" *Id.* (citing Pet. 10–11).

Patent Owner also argues that Petitioner's proposed construction for claim element 1[f] ignores the '477 patent's specification, and contradicts Petitioner's admissions in related litigation and in the '1892 IPR. PO Resp. 15–17 & n.8 (citing Ex. 2006, 3–4; Ex. 2009, 9; Ex. 2010, 17 n.9, 23, 33; Ex. 2011, 11, 17; Ex. 2012, 33; Ex. 2020, 16; Ex. 2021, 101–02). None of the citations provided by Patent Owner shows that Petitioner ignores the '477 patent specification or contradicts itself.

As one example, Patent Owner contends that "Petitioner argu[es] [in its reply brief in the '1892 IPR that] the claim element is met because 'Kloba

discloses management instructions based in part on consumer usage information.'" PO Resp. 17 (citing Ex. 2011, 17). But arguing that Kloba meets the claim language does not contradict anything Petitioner advances by way of claim construction. In another example, Patent Owner argues that "[t]he [c]ourt itself consistently interpreted these claim elements as requiring that the server's 'management instructions communicated back to the consumer device assets are based on the processing of at least some of the received consumer usage information.'" *Id.* at 17 n.9 (quoting Ex. 2010 (district court), 22 n.5; citing Ex. 2010, 23, 30). Here, however, the court simply draws a distinction between processing based on received consumer usage information and "not the operational status information," without particularly addressing the interpretation of the claim language at issue here. *See* Ex. 2010, 22 n.5.

As with the "consumer usage information" limitation discussed above, Patent Owner relies, *inter alia*, on the alleged "sole claimed embodiment," which includes the "pull down menus" example discussed above. *See* PO Resp. 11–12 (quoting Ex. 1001, 4:28–38); Ex. 1001, 4:28–38, 11:41–52. Arguing that a "sole claimed embodiment taught by the specification" governs the claim construction cuts against Patent Owner's other arguments that other embodiments "broadly" support its construction. *See* PO Resp. 9–10 (citing several "managing" embodiments "central to these disputed claim elements"). In any event, we agree with Patent Owner that different passages in the specification and the claim language inform the claim construction here as they do with "consumer usage information" or "management instructions" in the previous sections. However, the passages that Patent Owner relies upon for their broad teachings do not support the

narrow construction urged by Patent Owner. *See* PO Resp. 9–11 (relying on examples that relate to pre-programmed conditions or other operational conditions instead of consumer usage information).

As one example, Patent Owner contends that a server effectuates management instructions after processing "changes in [intruder alarm] data values" by sending a "'data message' for effectuating a system lockdown of particular 'doors and barriers.'" *Id.* at 11 (citing Ex. 1001, 9:7–20; Ex. 2029 ¶ 37). But this example does not describe "consumer usage information" at the heart of the claim construction dispute, unless one considers the asset to be a building. For example, the passage describes monitoring "access to a building" including perhaps "the presence or movement of any persons within the monitored facilities." *See* Ex. 1001, 9:7–20. So it is unclear how this passage shows the relationship between "management instructions" and "consumer usage information" that Patent Owner argues exists. The other cited passages suffer from similar deficiencies. Mr. Berg's testimony tracks Patent Owner's arguments in that it relies on the same passages. *See, e.g.*, PO Resp. 11 (citing Ex. 2020 ¶ 37). As noted above, Patent Owner argues that certain passages are "irrelevant" to the construction of "consumer usage information" because those passages do not relate to the consumer's use of the asset (PO Resp. 6), while other passages broadly teach the "managing" limitation, which recites "consumer usage information," even if the cited passages do not relate to a consumer's use of the asset and merely generally teach "processing various types of information" (PO Resp. 11).

The description of the alleged sole claimed embodiment also does not mention management instructions. *See* '1892 FWD 20 n.4 (noting that Patent Owner admitted as much during the oral hearing of that case). This

alleged sole claimed embodiment at column 4 generalizes "gather[ing] data" per "the use of a particular" asset and forwarding it to a server for the purpose of "optimising the asset" and "designing an appropriate range of services," without describing any particular management instruction or communication resulting from processing particular consumer usage information. *See* Ex. 1001, 4:29–31. Also, as discussed above, none of the claims require optimizing. The passage is vague enough, on one hand, to include a server that simply sends an "improved" "pull down menu[]" "according to the way the user preferred to use the device or in the order of access of mostly used features" (*see id.* at 4:33–38), but on the other hand, vague enough to include (implicitly) some type of management instructions (without mentioning any) wherein the server sends management instructions to the consumer asset to facilitate an improvement. The passage supports the former reading, because it describes "forward[ing] . . . data to a remote *server for the purpose of optimising the asset and for designing an appropriate range of services to support the said use of said asset*." *Id.* at 4:31–33 (emphasis added). In other words, the server optimizes the asset and designs services for the asset, but it does not necessarily send instructions to the asset so that the asset optimizes the asset or alters the range of services or does anything other than display what the server sent it.[8]

The passage does not even describe how the device or server determines "the way the user preferred to use the device" as set forth in the passage. *See* Ex. 1001, 4:29–37. For example, perhaps a local program

[8] As discussed below (§ II.F1.e), Patent Owner argues that Kloba's system only performs such optimization at the server and sends an optimized service to the asset (i.e., without any instructions).

monitors how the user uses the device and then sends data to the server, or perhaps the user informs the device or server as to how it prefers to use a device by selecting among various options and sends the selected preference to the server. The broad passage raises different possible outcomes.

Responding to the Decision on Institution, Patent Owner characterizes as "completely unsupported" and "not raised in the Petition" the notion that the sole embodiment passage does not state whether the server sends management instructions to the consumer asset to facilitate that improvement or whether it simply sends an improved menu ready for downloading. *See* PO Resp. 13 n.6. To the contrary, as noted above, the passage neither describes management instructions nor ties any management instructions to consumer usage information and it supports broad scenarios as outlined above. And Patent Owner raises the issue of what the passage describes in its Preliminary Response and in its Patent Owner Response. *See* Prelim. Resp. 15 (quoting Ex. 1001, 4:28–38); PO Resp. 11–13 n.6.

Patent Owner also argues that dependent claims lend meaning to independent claims 1 (and the similar limitation in claim 20). PO Resp. 7. Patent Owner relies on dependent claim 5, which recites "wherein the automatic modifications of the stored display data content files of the one or more consumer device assets caused by the one or more management instructions that are based upon the results of having processed at least some of the consumer usage information *or* consumer preference information." Patent Owner contends that by referring back to the "management instructions" in claim 1, this "illuminating language" in claim 5 "expressly describe[s] them as being '**management instructions that are based upon**

the results of having processed at least some of the consumer usage information.'" *Id.* at 15 (citing Pet. 44; Ex. 1001, 27:16–26).

Normally, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Phillips*, 415 F.3d at 1315 (citing *Liebel–Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Petitioner contends that "[t]he proper way to read claims 5 and 23 consistent with claims 1 and 20 is that 'based upon . . .' modifies the overall 'the automatic modifications' phrase." Reply 15 ("Claims 1 and 20 provide that these 'automatic modifications' ultimately result from the claimed 'managing . . . by sending,' which is based upon the server processing consumer usage information. Thus, the 'automatic modifications' are indirectly based upon that processing.").

The language of claim 5, which depends from claims 4/3/2, supports Petitioner. Claim 5 follows:

> A method according to claim 4 wherein *the automatic modifications* of the stored display data content files of the one or more consumer device assets caused by the one or more management instructions *that are based upon* the results of having processed at least some of the consumer usage information or consumer preference information *are comprised of at least one selected from the group consisting of storing one or more new display data content files on said assets, updating one or more existing stored display data content files on said assets, and deleting one or more existing stored display data content files from said assets.*

Ex. 1001, 27:6–26 (emphasis added). The "are comprised of . . . consisting of storing . . . files . . . , updating . . . files," etc., language in claim 5 clearly refers back to the "automatic modifications." It follows that the "that are based upon the results" language also refers back to "the automatic

modifications," based on the parallel structure of "are comprised of" and "are based upon" language—i.e., both phrases refer to the same thing, "the automatic modifications." In addition, Petitioner's interpretation properly adds a narrowing limitation with respect to claim 4, because it defines three different ways (storing, updating, and deleting files) to render the automatic modifications.

Accordingly, claim 5 does not support a narrow construction. To the contrary, it supports the broad claim construction of claim 1 that Petitioner proposes.

Nevertheless, Patent Owner contends that the limitation in question does not narrow claim 1, and relies on case law to support its position. *See* Tr. 86:1–87:2 (arguing the language in question defines, but does not narrow, claim 1); PO Resp. 14 (citing *Spineology, Inc. v. Wright Med. Tech., Inc.*, 739 Fed. App'x 633, 637–38 (Fed. Cir. 2018); *Pods, Inc., v. Porta Stor., Inc.*, 484 F.3d 1359, 1366 (Fed. Cir. 2007)).

In *Spineology*, the issue was whether the "body" includes the "barrel" in independent claims 15 and 33. *See Spineology*, 739 Fed. App'x at 634–37. The court noted that two dependent claims, claims 16 and 36, recited that "the 'body' must be a structure that can include a 'view port.'" *Id.* at 637. Then the court found that the specification clearly displayed the "view port" on the "barrel," so the court reasoned that dependent claims 16 and 36 showed that the body in the independent claims includes the barrel. *Id.* But the court did not read specific limitations as recited in dependent claims 16 and 36, namely the "view port" on the "barrel," into the "body" as recited in the independent claims. *See id.* In contrast, Patent Owner here seeks to narrow independent claim 1 by incorporating limitations

specifically recited with respect to the "management instructions" in dependent claim 5, as opposed to shedding light on what the managing limitation as recited in claim 1 means. Also, here, unlike in *Spineology*, the specification does not provide clear guidance.

In *Pods*, the court construed the same claim term in two independent claims to be the same. *See Pods*, 484 F.3d at 1366 ("PODS has pointed to no evidence in the specification or the prosecution history that the term 'carrier frame' in [independent] claim 29 has any meaning other than the uncontested meaning in [independent] claim 1."). In contrast, claim 5 is dependent upon claims 4/3/2/1, and for the reasons above, reading it under Patent Owner's theory does not clarify how to read claim 1.

For these reasons, and for reasons explained in the '1892 IPR, the alleged "lone claimed embodiment" and other intrinsic and extrinsic evidence cited by Patent Owner does not alter the plain language of claims 1 and 20 in the manner urged by Patent Owner. *See* '1892 FWD 23–24; '1892 IPR, Paper 37 (rehearing decision), 8. Other embodiments, including the monitoring of computers embodiment described above (Ex. 1001, 3:5–17), lend meaning to the claim phrase as the panel determined in the '1892 FWD and in a subsequent rehearing decision. *See* '1892 FWD 23–24; '1892 IPR, Paper 37, 8 ("As we stated in the Final Written Decision, according to the plain language of claims 1 and 20, it is the communication of management instructions, not the management instructions themselves, that is based upon the results of processing at least some of the received consumer usage information.").

Patent Owner also argues that Petitioner's construction is improperly "detached from the essential function of the invention," which is that the

server processes received "consumer usage information" to determine what resulting modifications to then make to an asset by way of effectuating "management instructions." PO Resp. 19 (quoting *Sophos Ltd. v. Iancu*, 727 Fed. Appx. 656, 661 (Fed. Cir. 2018)). Stated differently, Patent Owner contends that

> [b]y interpreting these claim elements as requiring *no relationship whatsoever* between the nature or content of the server's managing by way of effectuating "management instructions" on the one hand, and its processing of "consumer usage information" on the other hand, Petitioner clearly errs by construing these elements in an unreasonably broad fashion that effectively reads the crucial "based upon the results of" limitation out of the claim language.

PO Resp. 18 (emphasis added). Under Patent Owner's narrow construction then as set forth above, the managing instructions require at least some "relationship . . . between the nature . . . of the . . . server's managing by way of effectuating 'management instructions' . . . and its processing of 'consumer usage information.'" *See id.* As discussed further below, Petitioner shows that Kloba's management instructions satisfies Patent Owner's narrow construction and also Petitioner's broader construction.

As determined below, this Final Written Decision applies collateral estoppel based on the '1892 FWD with respect to the issue of whether Kloba teaches the managing limitation under Petitioner's broad claim construction of the managing limitation, but not under Patent Owner's narrow claim construction. *See infra* § II.F.1.e. Because we determine below that Kloba teaches the limitation under both constructions, no need exists to choose one construction over the other. *See id.* However, based on the discussion above, we determine that under *Phillips*, Petitioner's claim construction

more closely hews to the specification, the plain language of claims 1 and 20, and language in the dependent claims 5 and 22.

C. Level of Ordinary Skill in the Art

The level of ordinary skill in the art provides "a prism or lens" through which to view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The prior art at issue in the case often reflects the level of ordinary skill. *See Okajima*, 261 F.3d at 1355. Adding to the determination, the Court finds "[a] person of ordinary skill is . . . a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

The parties, relying on their respective experts, provide materially similar characterizations of the level of ordinary skill in the art. Pet. 20 (citing Ex. 1005 ¶ 53); Prelim. Resp. 4 (relying on the Declaration of Mr. Brian A. Berg, Ex. 2002) (citing Ex. 2002 ¶ 28).[9] No material difference exits between the parties' proposals, and neither party argues any issue turns on any such difference. Based on virtually the same showings by the parties, the Board made materially the same finding in the '1892 FWD. '1892 FWD 25–26.

D. Principles of Law

If "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains," 35 U.S.C. § 103 renders the

[9] Patent Owner's Response does not address the level of ordinary skill in the art. *See* PO Resp. ii–iii (Table of Contents).

claim obvious. *KSR*, 550 U.S. at 406. The question of obviousness involves resolving underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when available, evidence such as commercial success, long felt but unsolved needs, and failure of others. *Graham v. John Deere Co*., 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.").

The Court sets forth "an expansive and flexible approach" to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious involves determining whether any improvement amounts to more than the predictable use of prior art elements according to their established functions. *Id*. at 417. Reaching this determination, however, requires more than merely showing that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc*., 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention "would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Id*.

E. Overview of the Asserted References

1. Kloba (Ex. 1006)

Kloba, titled "System, Method, and Computer Program Product for Customizing Channels, Content, and Data for Mobile Devices," describes techniques for enabling Web content to be loaded onto mobile devices and

for users of the mobile devices to interact with the Web content on their mobile devices during an off-line mode of the devices. Ex. 1006, codes (54), (57). Kloba's Figure 1A, reproduced below, illustrates an exemplary data processing environment 102 including server 104, one or more devices 106, one or more adapters 118, and one or more providers 128:

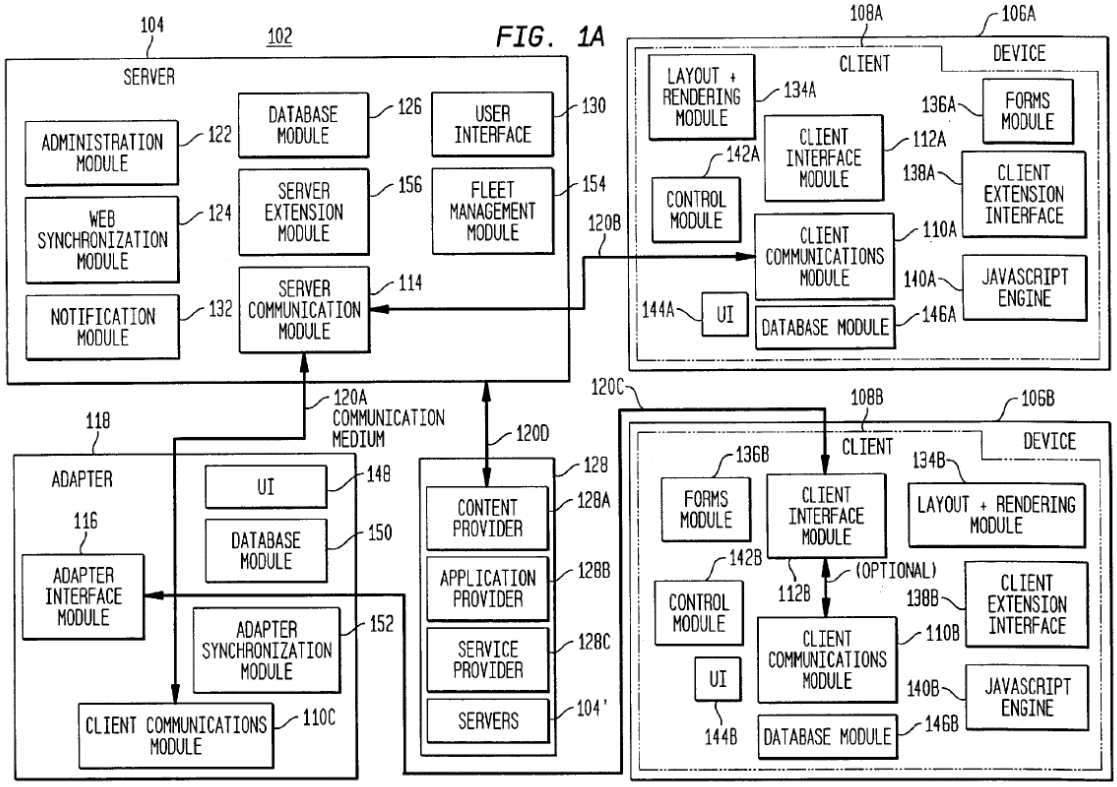


Figure 1A is a block diagram illustrating data processing environment 102 including server 104 and mobile computing devices 106. *Id.* at 7:21–27.

In Figure 1A, "devices 106 [(e.g., devices 106A, 106B)] may be any type of data processing device," such as mobile computing devices including handheld computers, cellular phones, Internet-enabled phones, pagers, radios, TVs, audio devices, car audio systems, recorders, text-to-speech devices, bar-code scanners, net appliances, mini-browsers, and personal data assistants (PDAs). Ex. 1006, 4:24–39 (Table 2), 10:41–50. Device 106 may

include software, hardware, and/or combinations thereof related to client functionality (e.g., layout and rendering, control, user interface, client interface, database), rendering the device a client (e.g., clients 108A and 108B correspond to devices 106A, 106B, respectively). *Id.* at 10:51–65. "Client communications module 110 enables the client 108 to interact with external entities, such as server 104. In embodiments, the client communications module 110 enables TCP/IP traffic." *Id.* at 12:13–16. Server 104 maintains channels of data, and adds selected channels to clients 108A, 108B. *See id.* at 8:4–6. A channel includes a collection of objects, such as applications, services, images, movies, music, and links that can be transferred to client 108. *Id.* at 7:27–31.

According to Kloba,

> [t]he server 104 offers channels to clients 108. A client 108 may access the server 104 and view the collection of channels. The client 108 may then select any combination of the channels in the collection. The server 104 maintains a list of the channels associated with each of the clients 108.
>
> During a synchronization process, the server 104 loads a device 108 with the channels associated with the client 108. Generally, the server 104 does this by obtaining from providers 128 the objects defined by the channels, and causing those objects to be stored on the client 108. Thus, during the synchronization process, the server 104 will load the client 108 with the selected channels. More particularly, the server 104 will load the client 108 with the objects associated with the channels.
>
> The client 108 may process and use those objects when not connected to the server 104. The invention enables the client 108 to actively interact with the objects and channels.
>
> In one embodiment, the client 108A directly interacts with the server 104 via some transmission medium 120B, which may be any wired or wireless medium using any communication protocol.
>
> . . . .

> [A] web synchronization module 124 [of server 104] is an application/instance of server extension module 156 [of server 104], and controls synchronization of web content to client 108. The invention may include other synchronization modules (which are application/instances of server extension module 156) that control synchronization of other types of objects to clients 108. For example, the server 104 may administer a calendar that may be installed on clients 108. The synchronization of appointments, events and/or dates on this calendar between clients 108 and the server 104 may be performed by a calendar synchronization module.

Id. at 8:7–26, 9:10–21. During a synchronization, in one embodiment, control module 142 (of a client 108) identifies "deltas" (differences between versions of objects offered and those in the client) in the client databases identified by server 104 and sends the deltas to a synchronization module of server 104, or a synchronization module generated by third parties (as shown in Figure 1B). *Id.* at 10:35–40, 19:51–67. The synchronization modules synchronize the deltas with providers 128 and compile instructions to synchronize clients 108A, 108B with providers 128. *Id.* at 20:11–17. Control modules 142A, 142B on clients 108A, 108B then execute the instructions. *Id.* at 20:23–25. In another more generic teaching, Kloba synchronizes differences based on user data, changes, or selections that the user "wishes to receive." *See id*. at 20:50–21:2, Fig. 1X.

During synchronization, server 104 may also optimize Web or other third party content to display the content within parameters of the client devices 108, for example, by scaling the content as shown in Figure 1AA, reproduced below. Ex. 1006, 6:35–41, 23:48–55 (server side optimization

of content during synchronization), 28:20–36.

FIG. 1AA

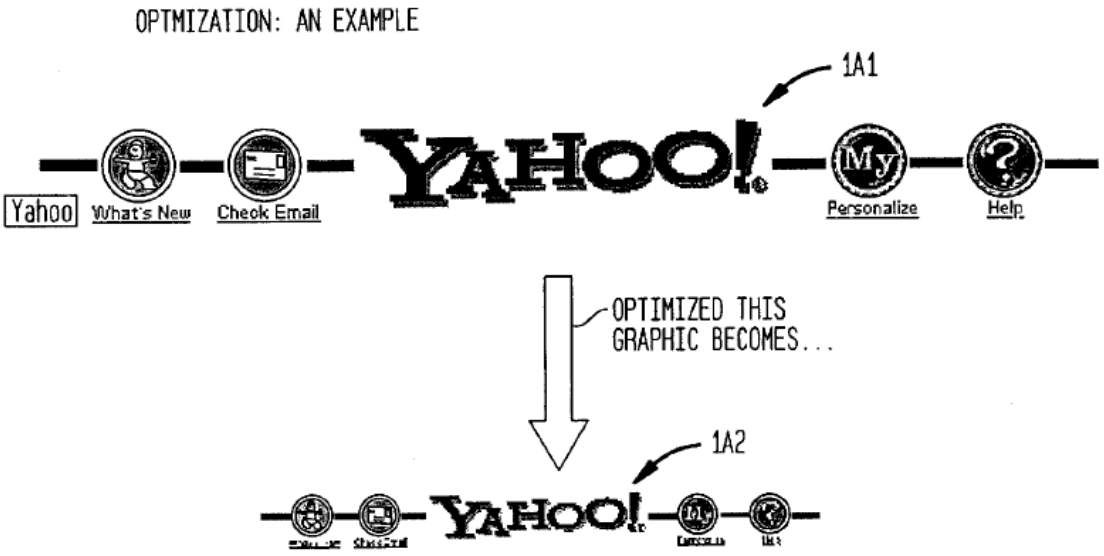


Figure 1AA illustrates a process that optimizes (via colors, size, etc.) Web site page 1A1 for display 1A2 on a handheld device. *Id.* at 6:35–40, 21:55–60, 28:30–31.

In Figure 1AA, Web page graphic display 1A1 represents a large screen desktop display, and Web page graphic display 1A2 represents an optimized version 1A2 of Web page graphic display 1A1 optimized to fit on handheld device 106/client 108. *Id.* at 28:32–36. Optimization of Web content display by server 104 enables the display to fit within the client's parameters, such as the client's dynamic memory specifications, high memory specifications, protected memory, storage memory, database memory, available storage space, screen size, user profile(s), color depth, applications on the device, buttons on the device, data markers, preferences, fonts, font specifications, sync type, supported data types, supported mime types, and connection/network profile. *Id.* at 28:21–30.

A user of a device can subscribe to a channel through the use of a user interface, including that of Figure 12, reproduced below:

FIG. 12

Figure 12 illustrates a screen shot of a channel subscription page displayed on client 108. *Id.* at 34:49–50.

During a synchronization, the server loads channels (e.g., FOX SPORTS, BLOOMBERG) selected by client 108 using the interface of Figure 12. *Id.* at 34:49–54.

2. Multer (Ex. 1007)

Multer, titled "Data Transfer and Synchronization System," describes systems for transferring data between two devices that require information to be shared between them. Ex. 1007, codes (54), (57), 5:11–13. Figures 1 and 2, reproduced below, illustrate configuration examples for transferring data between two devices:

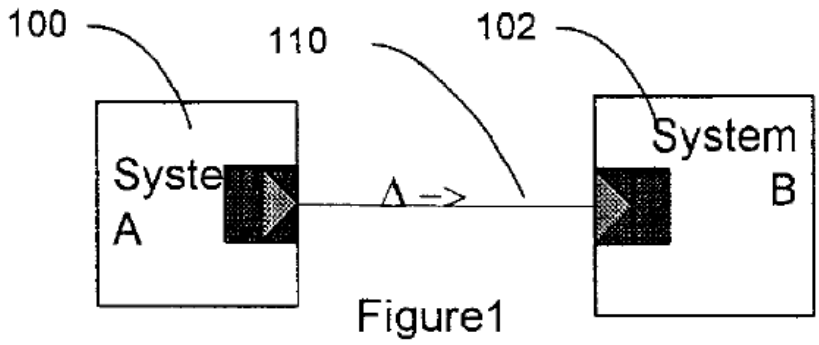
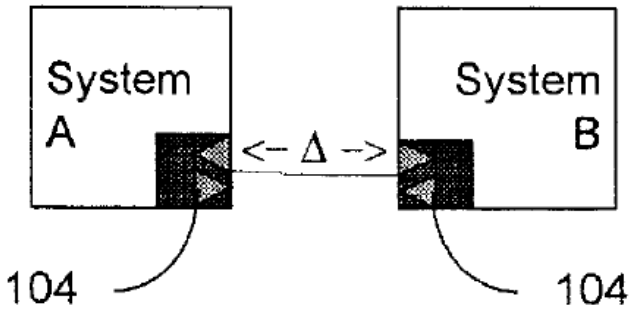


Figure1

Figure 2



Figures 1 and 2 illustrate block diagrams of systems using differencing routines. *Id.* at 4:45–47, 5:57–60, 6:31–34.

In Figure 1, differencing transmitter 100 of System A examines a data structure of information to be transmitted to differencing receiver 102 of System B, extracts the information from System A, and converts it to difference information Δ. Ex. 1007, 5:57–6:8. Difference information Δ comprises only the changes to System B's data that have occurred and instructions for implementing those changes on System B. *Id.* at 6:8–11. Differencing transmitter 100 transmits the difference information Δ to differencing receiver 102 via communication line 110. *See id.* at 5:60–65. "Difference information Δ received by differencing receiver 102 at System

B is reconstructed at System B, and the changes reflected therein are updated on System B." *Id.* at 6:16–19.

In Figure 2, both System A and System B include functional blocks 104, each representing a differencing synchronizer that will allow difference information Δ to be both transmitted and received. Ex. 1007, 6:31–37. For example, System A and System B represent a portable computer and a desktop computer, respectively, and differencing synchronizer 104 extracts changes to contact information on either System A or System B at predetermined times, transmits the information Δ between the systems, and reconstructs the data on the receiving system to update information from the sending system, thereby synchronizing contact information between Systems A and B. *Id.* at 6:37–46.

Multer describes a "pull" synchronization and a "push" synchronization. Ex. 1007, 35:4–18, 37:40–61, Fig. 15, Fig. 16. Synchronization can be triggered automatically:

> Each device has its own triggering mechanism for initiating synchronization. Some devices, such as Windows clients and Palm® pilots are triggered manually when the user presses a "sync" button. Other devices, such as a cellular telephone, may be triggered automatically after another device completes a sync. Regular, time-based triggers are supported as well.

Id. at 35:4–18, Fig. 15. In a "push" synchronization, a device uploads difference information (Δs) to a server. *Id.* at 37:40–61, Fig. 16.

3. Loughran (Ex. 1008)

Loughran, titled "Method and Apparatus for Automatic Content Handling," describes a system for performing autonomous data transfer between an email server and a mobile device such as a notebook computer.

Ex. 1008, codes (54), (57), Fig. 1. The mobile device connects to the email server via a wireless data connection and downloads the email. *Id.* at code (57). For example, the email server compiles an SMS message incorporating a digital signature and transmits the email to the mobile device using SMS messages sent in accordance with the GSM short messaging service. *Id.* ¶¶ 37–38, code (57). Loughran also notes

> it is usual for laptops and other mobile computing devices to be switched off when not in use. . . . The alert module [GSM transceiver] associated with the mobile device could be maintained in a low power consumption standby mode and on receipt of an SMS message containing an "EMAIL" header, power up the notebook.

Id. ¶ 40.

4. Fong (Ex. 1010)

Fong, titled "System, Computer Program Product and Method for Managing and Controlling a Local Network of Electronic Devices," describes "a main server including software for managing network resources from a single point of administration, wirelessly connecting a plurality of electronic devices to the main server to create a wireless local area network (LAN), and managing the electronic devices using the software." Ex. 1010, codes (54), (57). In Fong's system, "main server 200 monitors the management initiating parameters of all electronic devices 202–212 connected to the wireless LAN." *Id.* at 9:49–51. In one example,

> if the main server 200 is set up to monitor the battery power of mobile terminals 208 and 212 and send a message to all terminals indicating that a particular terminal battery must be charged, the management initiating parameter is the battery power and the action is sending a message to all terminals on the wireless network.

Id. at 10:10–16.

5. Chow (Ex. 1009)

Chow, titled "Broadband Network with Enterprise Wireless Communication System for Residential and Business Environment," describes a network-centric service distribution architecture that integrates a wireless access system/service in a residence, SOHO (Small Office Home Office), business, or public environment through the use of a local broadband network (a Residential/Business Broadband Network—RBN) to a service provider's broadband transport network and to a service provider's broadband packet network. Ex. 1009, code (54), ¶ 11. The integration of an RBN to a service provider's broadband packet network allows a subscriber to communicate at home and at the office with one communication device. *Id.* ¶ 11. According to Chow, "[t]he invention extends the scheme of wired Virtual Private Networks (VPNs) to include duplicate wireless elements in home and office." *Id.* ¶ 2.

Chow states "[t]hree key wireless access technologies/standards, TIA/EIA-136, General Packet Radio Service (GPRS)/Enhanced Data for Global Evolution (EDGE), and IEEE 802.11b Wireless LAN, are used to define basic residential and/or small business services," but notes "these standards are for illustrative purposes only and any practices that are based on differences or variations of given home or small business network apparatuses and/or broadband network access to the home and/or small business environments and/or wireless protocols shall be within the scope of the invention," and gives the example of Wideband CDMA (WCDMA).

Ex. 1009 ¶ 30. Chow also explains "[a]nother instantiation of the [access port] can be to support a high-speed wireless data access via the IEEE 802.11b wireless LAN standard." *Id.* ¶ 95.

F. Obviousness Based on Kloba and Multer

Petitioner argues that claims 1–6 would have been obvious over the combined teachings of Kloba and Multer. Pet. 21–49. Patent Owner opposes. PO Resp. 22–55.

1. Independent Claims 1 and 20

a. Limitations 1[a]–1[e] and 1[g]

Petitioner contends that Kloba teaches most of limitations 1[a]–1[e] and 1[g] as recited in claim 1, with Multer's synchronization techniques suggesting that certain synchronization communications in Kloba (containing consumer usage information and operational status information) automatically would have resulted from preprogrammed conditions as limitations 1[c] and 1[d] require. *See* Pet. 28–32, 39–40. Petitioner's specific citations to the record and Dr. Kesidis's testimony support Petitioner's contentions. *See* Ex. 1005. Apart from disputing certain aspects of limitations 1[a]–1[e] and 1[g], Patent Owner does not otherwise dispute Petitioner's showing with respect to limitations 1[a]–1[e] and 1[g]. *See* PO Resp. 22–44 (presenting arguments regarding nonvolatile memory in the preamble, consumer usage information in limitations 1[d], 1[e], and automatically communicating in limitation 1[d]) (the "three argued limitations").

Based on a review of the record, setting aside the specific arguments with respect to the three argued limitations for now, Petitioner's showing is persuasive as to the remaining portions of claim limitations 1[a]–1[e] and

1[g]. *See* Pet. 28–32, 39–40. In addition, Petitioner shows that these limitations present materially the same limitations at issue in the '1892 FWD and the determination that the combined teachings of Kloba and Multer render them obvious was actually litigated, necessary to the judgment, and involved the same parties. *See* Pet. Supp. Br. 2 & n.1, 7–8 (citing Ex. 1012 (comparing claim elements between the '477 patent and the '358 patent)); '1892 FWD 32–55. As Petitioner argues, Patent Owner had a full and fair opportunity to litigate the issue of whether Kloba and Multer render these claim limitations obvious, so that collateral estoppel prevents Patent Owner from re-litigating these specific claim limitations. *See* Pet. Supp. Br. 1–3 & n.1, 7–8. Patent Owner does not contest Petitioner's collateral estoppel showing with respect to these claim limitations that it does not argue. *See* PO Supp. Br. 1 (arguing that collateral estoppel does not prevent it "from litigating any of the issues that have been raised in the instant proceedings").

b. Limitation 1[Preamble] (each consumer device asset having "nonvolatile memory for storing files of data content for display")

Petitioner asserts that in view of the "underlying rationale behind the doctrine" of collateral estoppel and "nearly identical records," "the Board should not depart from its prior holding that the 'nonvolatile' preamble elements are both non-limiting and disclosed." *See* Pet. Supp. Br. 15–16. Petitioner also asserts that Patent Owner "had a full and fair opportunity to litigate the issues of whether the nonvolatile memory elements are limiting and whether Kloba teaches nonvolatile memory as claimed." *Id.* at 15.

We agree with Petitioner. First, based on the claim construction adopted here (*supra* § II.B.1), the preamble portion of claim 1 that recites a nonvolatile memory does not limit the claims. As noted above, the Board

reached the same determination in the '1892 FWD, which we adopt and incorporate by reference. '1892 FWD 33–34. Second, even if the "nonvolatile" preamble portion limits the challenged claims, similar to its showing in the '1892 IPR, Petitioner points to Kloba's disclosure of different types of memory, including nonvolatile memory, applicable to different types of generic mobile devices, not limited to cellular phones. *See* Pet. 22–23; '1892 FWD 34–38. We adopt and incorporate by reference the Board's findings and determination that Kloba teaches a nonvolatile memory irrespective of whether the preamble is limiting. '1892 FWD 34–38.

Patent Owner asserts that Petitioner admits that collateral estoppel does not apply because "the prior [panel] made 'independently sufficient alternative holdings'" by "treating this limitation as both limiting and not limiting." PO Supp. Reply Br. 8; *see* PO Supp. Br. 4–5 (citing *TecSec, Inc. v. Int'l Bus. Mach. Corp.*, 731 F.3d 1336, 1343 (Fed. Cir. 2013) ("[W]here the court in the prior suit has determined two issues, either of which could independently support the result, then neither determination is considered essential to the judgment."). Patent Owner also asserts it raises new arguments that the '1892 FWD does not address so that there is "no identity of issues." *Id.* at 16–17.

Nevertheless, as summarized above and as discussed further below, Petitioner shows, and Patent Owner does not dispute, that the two proceedings involve the identical issue of whether Kloba teaches the same claim limitation, and Patent Owner had a full and fair opportunity to be heard on that issue. *See* Pet. Supp. Br. 15–16. Also, Patent Owner's arguments fail to faithfully adhere to the precedent as outlined in the Order for Supplemental Briefing (Paper 37) ("Order"), as Patent Owner seeks to

rely on other precedent that does not apply to the circumstances here. As we noted in the Order, "[i]f the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity, collateral estoppel applies." Order 2 (quoting *Nestle USA v. Steuben Foods*, 884 F.3d 1350, 1352 (Fed. Cir. 2018)).[10]

Here, Petitioner shows that no difference in the claim terms occurs with respect to the preamble, let alone a material difference, even though different claim construction standards apply. *See* Pet. Supp. Br. 14–16. Moreover, Patent Owner had the opportunity to, and did, fully and fairly litigate the issue of the claim construction of "nonvolatile memory" and whether Kloba teaches the nonvolatile memory even if the preamble limits the claims. '1892 FWD 33–38 (finding Kloba teaches materially the same limitation even if the preamble is limiting). Patent Owner did not raise any issue regarding the preamble and whether Kloba teaches it in its opening brief at the Federal Circuit. *See* Ex. 1024, 1–11 (table of contents and opening pages of Patent Owner's opening brief focusing on the "management instructions" in the "managing" limitation of related claims in related patents, including the '358 patent).

"A full and fair opportunity to litigate is the touchstone of any preclusion analysis." *Aspex Eyewear, Inc. v. Zenni Optical Inc.*, 713 F.3d 1377, 1382 (Fed. Cir. 2013) (citing *Taylor v. Sturgell*, 553 U.S. 880, 892, (2008)). "The 'desire not to deprive a litigant of an adequate day in court' is balanced against the 'desire to prevent repetitious litigation of what is

[10] As noted in the Order, the quote in *Nestle* originates from *Ohio Willow Wood Co. v. Alps Sl, LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013)). *See* Order 2.

essentially the same dispute.'" *Id.* (quoting *In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994)). "The court correctly found that Aspex had a full and fair opportunity to litigate this issue." *Id.*

In *Maxlinear, Inc. v. CF Crespe LLC*, 880 F.3d 1373 (Fed. Cir. 2018), which we also cited in our Order, the court stated that "[i]t is well established that collateral estoppel, also known as issue preclusion, applies in the administrative context," including Board final written decisions. *See Maxlinear*, 880 F.3d at 1376 (citing *B & B Hardware, Inc. v. Hargis Indus., Inc*., 135 S. Ct. 1293, 1303 (2015)). In *Maxlinear*, the court held that "the preclusive effect of the prior [Board] adjudications, and subsequent affirmations, has finally resolved the issue of the unpatentability of independent claims 1 and 17 and dependent claim 20 in this proceeding." *Id.* at 1377. The prior adjudications and subsequent affirmations involved Rule 36 judgments of *inter partes* Board decisions, as is the case here. *See id.* at 1375–76.

Moreover, the prior adjudications that served as the basis for collateral estoppel in *Maxlinear* involved *different prior art* (i.e., different issues) than the underlying Board decision on appeal. *Maxlinear*, 880 F.3d at 1375–76. Nevertheless, *Maxlinear* vacated and remanded the Board's determination that the sole independent claims 1 and 17 were patentable, based on the prior Board adjudications and subsequent Federal Circuit Rule 36 affirmations that these claims were unpatentable over that *different prior art*. The court also remanded for the Board to determine the "preclusive effect of the prior adjudications, and subsequent affirmations," on the validity of dependent claims "*not addressed in the earlier IPRs.*" *Maxlinear*, 880 F.3d at 1377

("[T]he sole remaining question at issue is whether the dependent claims 4, 6–9, and 21, not addressed in the earlier IPRs, are unpatentable.").

Accordingly, Patent Owner's argument that the '1892 FWD and subsequent affirmation by the Federal Circuit does not have preclusive effect because the Board entertained different issues or decided that Kloba teaches the nonvolatile memory under two alternate theories is misplaced. The question of preclusion involved here is not whether one of two alternatives in claim construction apply. Rather, the question is "whether the . . . claims present materially different issues that alter the question of patentablity, making them patentably distinct from" the claims adjudicated in the '1892 IPR. *See Maxlinear*, 880 F.3d at 1377–78. As discussed above, Petitioner shows that the nonvolatile memory limitation is not patentably distinct in both sets of claims involved in the two proceedings and it raises the exact same issue of whether Kloba teaches the limitation, even if the preamble limits the claims. *See* Pet. Supp. Br. 14–16. That issue was actually litigated and necessary to the Board's determination in the '1892 FWD that the Federal Circuit affirmed in the M2M Federal Circuit Decision.[11] *See* '1892 FWD 33–38; *supra* § I.B.

[11] Patent Owner's reliance on *TecSec* is misplaced. *See* PO Supp. Br. 4–5. In *TecSec*, although the court held that the claim construction could not be given preclusive effect, it simply did not decide if the ultimate judgment of non-infringement would not have been given preclusive effect. *See TecSec*, 731 F.3d at 1344 ("For collateral estoppel to apply to a court's claim construction, the construction 'had to be the reason for the loss,' *Jackson Jordan, Inc. v. Plasser Am. Corp.*, 747 F.2d 1567, 1577 (Fed. Cir. 1984), a conclusion that does not apply here."); *cf. Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1323 (Fed. Cir. 1987) ("The prior determination of certain issues, including the issues of claim construction

In *Masco Corp. v. United States*, 303 F.3d 1316 (Fed. Cir. 2002), the court analyzed the "general rule" that Patent Owner urges here regarding "two [alternate] issues" for purposes of collateral estoppel: "If a judgment of a court of first instance is based on determinations of two issues, either of which standing independently would be sufficient to support the result, the judgment is not conclusive with respect to either issue standing alone." *Masco*, 903 F.3d at 1330 (quoting Restatement of Judgments, Second, § 27, Comment i). However, the court quoted with approval the Court of Claims as follows:

> when a lower court's *decision on a question of fact is challenged in a proper appeal*, and the appellate court does not pass upon that finding of fact in reaching its decision [because it reaches an alternative finding], the lower court's finding is not conclusive against the appellant in a subsequent suit on a different cause of action. *The doctrine of res judicata must be so limited since a factual issue cannot, consistent with the statutory right to appellate review, be said to have been finally adjudicated when the appellant has been precluded from obtaining the appellate review which he sought and to which he would have been entitled if the fact had been material*.

Id. (quoting *Hannahville Indian Community v. United States*, 180 Ct. Cl. 477, 485 (Ct. C. 1967)) (emphasis added). In other words, assuming for the sake of argument that the "two [alternate] issues" rule otherwise might apply here, at a minimum, Patent Owner must have "challenged" the issue during "appellate review," and then been "*precluded from obtaining the appellate review which he sought.*" *See id.* As noted above, Patent Owner did not seek appellate review of the nonvolatile memory limitation at issue in the

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and of infringement by [one model] and non-infringement by [another model], bars judicial redetermination of those issues.").

'1892 FWD. *See* Ex. 1024, 1–11, 55–73. Patent Owner verified this during the Oral (video) Hearing, noting that it only challenged "a single issue . . . related to the claim construction for the management instructions" at the Federal Circuit. Tr. 41:3–8.[12]

Moreover, Patent Owner acknowledges that in cases where the "'identity-of-issues' test factor cannot be satisfied due to 'the mere existence of different language,' . . . [Patent Owner] 'must show that the differences between the unadjudicated patent claims and the adjudicated patent claims . . . materially alter the question of invalidity.'" *See* PO Supp. Br. 2 (quoting *Ohio Willow*, 735 F.3d at 1342). Here, Petitioner shows that the preambles in the '1892 FWD and here are "identical" (Pet. Supp. Br. 14); therefore, "the Board should not depart from its prior holding that the 'nonvolatile memory' preamble elements are both nonlimiting and disclosed" (*id.* at 16). Patent Owner does not dispute Petitioner's showing that the terms are materially the same (identical). *See* PO Supp. Br. 6–7 (generally arguing that different claim construction standards preclude a finding of collateral estoppel), 10 (arguing the Board applied two alternate claim constructions so that issue preclusion does not apply); PO Resp. 20–22 (claim construction). The different claim construction standards in the two proceedings are irrelevant, because Patent Owner did not appeal the Board's holding in the '1892 FWD that Kloba teaches the nonvolatile memory limitation even if the preamble is limiting. *See* Pet. Supp. Br. 14–16.

[12] The reference to "management instructions" implicates the whole "managing" limitation 1[f] and the interplay between the processing of the consumer usage information and the management instructions central to the dispute here as discussed further below.

In other words, the '1892 IPR "presents" the "identical issue" of whether Kloba satisfies the exact same nonvolatile memory language; (2) the '1892 IPR "actually litigated and adjudged that issue;" (3) the '1892 FWD judgment "necessarily required determination of the identical issue; and (4) the prior action featured full representation of the estopped party" by the same parties as involved here. *See VirnetX,* 909 F.3d at 1377 (quoting *Stephen Slesinger,* 702 F.3d at 644).

Based on collateral estoppel, Patent Owner is precluded from relitigating whether Kloba teaches consumer device assets each having "nonvolatile memory for storing files of data content for display," as recited in the preamble of claim 1. If the preamble is not afforded weight under *Phillips* as determined above in the claim construction section, no need exists to reach collateral estoppel, because no need exists to determine if Kloba teaches a nonvolatile memory.[13] *Supra* § I.B.1. Accordingly, Petitioner shows by a preponderance of evidence that Kloba teaches the limitation even if the preamble is afforded weight.

c. Limitations 1[d], 1[e], and 1[f] ("consumer usage information")

For the claimed "consumer usage information" found in limitations 1[d]–1[f] of claim 1, Petitioner relies on Kloba. Limitation 1[d] of claim 1 follows:

> receiving at the remote computer server platform communications sent from each of the plurality of consumer

[13] Nevertheless, as noted above (§ II.A.B.1) and in the Decision on Institution, during prosecution of the '477 patent, the Examiner found a nonvolatile memory feature for storing data files for display to be known in the prior art. *See* Ex. 1003, 84; Inst. Dec. 19 (citing Ex. 1003, 84).

> 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.

Petitioner contends "Kloba's mobile devices send two types of consumer usage information to the server that identifies a manner in which a consumer user has used the particular sending consumer device," the two types of consumer usage information including (i) "information related to channels (*i.e.*, Internet content) that the user 'elect[ed] to subscribe to' while using the device [asset]" as shown in Kloba's Figure 12, and (ii) "information related to 'preferences' [such as state information and operation preferences of the device/asset] set by the user on the device" as shown in Kloba's Figure 17. Pet. 32–33 (citing Ex. 1006, 6:25, 20:51–53, 21:44–45, 24:37, 28:28, 34:50–52, 35:12–15, Figs. 1X, 12 and 17; Ex. 1005 ¶¶ 234–238). Petitioner asserts Kloba's device/asset "sends both types of 'consumer usage information' in [a] single 'one-up' transmission of the synchronization process." *Id.* at 33.

Kloba's server causes new channels and new preferences to be displayed and implemented on the consumer asset in an optimized fashion after a user selects channels and preferences from Figures 12 and 17 respectively. *See* Pet. 15–16, 33–34 (citing Figs. 12, 17); Ex. 1006, Fig. 12 (allowing menu selections for "FOX SPORTS," "BLOOMBERG," etc.), Fig. 17 (allowing menu selections for "SHOW IMAGES," "SHOW TABLES," etc.). During synchronization operations, "server 104 checks to see if the object differs [selected by a client] differs from the instance of the

object already resident on the client 108," before it sends a particular object. *See* Ex. 1006, 24:54–58.

Petitioner contends that the Board should not allow Patent Owner to relitigate the issue of consumer usage information, "even if collateral estoppel may not apply per se because the relevant claim language of the '358 patent [addressed in the '1892 FWD] and the '477 patent is not identical." Pet. Supp. Reply 19 (citing *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 575 U.S. 138, 140 (2015)). Petitioner also contends that "the language that [Patent Owner] attempted to read into the '358 claims [in the '1892 proceeding] is *nearly identical* to the language that [Patent Owner] actually added to the '477 claims." *Id.* at 17 (emphasis added).

Petitioner produces the following charts to illustrate its point (Pet. Supp. Reply 17):

'358 Patent	**'477 Patent**
Element 1[c]: receiving at the remote computer server platform communications sent from the plurality of consumer device assets containing … consumer usage information **[identifying the manner in which a consumer has used a consumer device asset]**	Element 1[d]: 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**

The chart above compares the language of element 1[c] of the '358 patent with the language of element 1[d] of the '477 patent, with annotations added by the Petitioner.

Petitioner adds the bracketed information on the left ("identifying the manner in which a consumer as used a consumer device asset") to signify that the panel in the '1892 FWD analyzed the claims in the '358 patent

under Patent Owner's proposed construction (which includes the bracketed information under Patent Owner's construction). *See id.* at 18 ("Applying [Patent Owner's] proposed construction [in brackets], the Board held that channel and preference selections made through the user interfaces shown in Figures 12 and 17 of Kloba constitute 'consumer usage information' as recited in the '358 patent.") (citing '1892 FWD 40–41).

Patent Owner contests Petitioner's assertions regarding the "consumer usage information," arguing that Kloba's disclosure in Figures 12 and 17 fails to teach the claimed term "consumer usage information" under either parties' proposed construction of the term. *See* PO Resp. 27–38.

However, the Board already determined that the combination of Kloba and Multer renders this limitation obvious in the '1892 FWD under a claim construction that materially tracks the claim construction adopted here. *See* '1892 FWD 22, 40–41. Nevertheless, Patent Owner argues that the Board "never meaningfully considered Patent Owner's arguments below that the FIGS. 12 and/or 17 types of information would fail identify for the server the ***particular*** manner in which a consumer had used the clients."
PO Resp. 27.

But this argument turns on Patent Owner's proposed claim construction, which we do not adopt. *See supra* § II.B.2. As Petitioner argues, the Board determined that the combination of Kloba and Multer renders this limitation obvious under a claim construction that materially tracks the claim construction adopted here. *See* '1892 FWD 41–42; Pet. Supp. Reply Br. 16–19; *supra* § II.B.2 (Claim Construction). Accordingly, as Petitioner also argues, Patent Owner should not be able to relitigate this issue here by relying on materially similar claim language as a patentable

distinction, because "the Board has effectively decided the issue of whether Kloba discloses 'consumer usage information.'" *See* Pet. Supp. Br. 18–19 (citing *B & B Hardware*, 575 U.S. at 140); *Ohio Willow* 735 F.3d at 1342 ("The application of collateral estoppel is not limited to patent claims that are identical."). In other words, the same material issue was necessary to the '1892 FWD judgement and actually litigated by the same parties during the '1892 IPR.

Specifically, in the '1892 FWD, the Board stated that "below, we analyze the claims under the construction Patent Owner proposed in the Preliminary Response, namely 'information identifying the manner in which a consumer has used a consumer device asset,' to the extent that this construction is more narrow than Petitioner's proposal." '1892 FWD 22. Although the Board did not analyze the claims to determine "the *particular* manner in which a consumer has used a consumer device asset," as the Board determined, this "particular" limitation does not appear in the claims. *See id.* We do not adopt this additional "particular" limitation here either as construed above. *See supra* § II. B.2. Similar to the preamble issue, Patent Owner chose not to litigate whether Kloba teaches consumer usage information in the '1892 FWD. *See* Ex. 1204, 1–5, 47–61. Therefore, for reasons similar to those in the previous section addressing the nonvolatile memory as recited in the preamble, principles of collateral estoppel preclude Patent Owner from relitigating the materially same issue here. Accordingly, Petitioner shows by a preponderance of evidence that Kloba teaches the consumer usage information limitation.

d. Limitations 1[c] and 1[d] ("automatically resulted from . . . preprogrammed conditions")

As indicated above, limitation 1[d] recites

> receiving at the remote computer server platform communications . . . containing consumer usage information . . ., 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.

Limitation 1[c] recites a similar limitation with respect to the "automatically resulted from . . . preprogrammed conditions" limitation, albeit requiring the automatic sending of "operational status information." Regarding limitation 1[c], Petitioner cites the '1892 FWD as informative and contends that various state information disclosed by Kloba, including memory specifications, available storage space, screen size, profile types, and other information, constitute the claimed "operational status information." *See* Pet. 29–30 (citing '1892 FWD 39; Ex. 1006, 6:9–34, 21:34–47, 23:62–63, 24:18–45, 28:23–30, 28:38–39). As indicated in the previous section, regarding limitation 1[d], Petitioner cites to the '1892 FWD as informative and preclusive, and contends that objects, including those selected using the menus represented in Figures 12 and 17, represent "consumer usage information." *See id.* at 31–32 (citing Ex. 1005 ¶¶ 213–218, 239; '1892 FWD 42–49).

Petitioner contends both "operational status information" and "consumer usage information" result automatically from pre-programmed conditions. *See* Pet. 31–32 (citing Ex. 1006, 19:57–67, 20:50–53; Ex. 1005 ¶¶ 213–218, 239; '1892 FWD 42–49; Ex. 1007, 35:15–18), 34 (similar citations). Petitioner relies on the combined synchronization features of

Kloba and Multer to arrive at the "automatically resulted from . . . pre-programmed conditions" feature as recited in limitations 1[c] and 1[d]. *See id.* at 33–34 (citing Ex. 1007, 35:15–18; Ex. 1005 ¶¶ 213–218, 239; '1892 FWD 42–49).

Referring to the motivation to combine advanced regarding the preamble (Pet. 34), Petitioner asserts Kloba does not "expressly disclose how devices that do not have a manual 'sync' button could initiate synchronization with the server," but "Multer provides that detail by teaching that '[o]ther devices, such as a cellular telephone, may be triggered automatically' or based on 'regular, time-based' triggers." *Id.* at 26 (citing Ex. 1007, 35:17–18). Petitioner asserts the artisan of ordinary skill "would have seen the benefit in incorporating this teaching from Multer into Kloba's system to provide an additional or alternative synchronization technique appropriate for devices such as cellular telephones that lacked a manual 'sync' button." *Id.* (citing Ex. 1005 ¶ 214).

Petitioner generally contends "Multer teaches that synchronization may be triggered manually or automatically and can occur in both a 'pull direction' (i.e., sending information from the server to a device as shown in Figure 15) as well as a 'push' direction (i.e., from device to server as shown in Figure 16)." *Id.* at 18 (citing Ex. 1007, 35:4–22, Fig. 15, Fig. 16).

Patent Owner contests Petitioner's assertions regarding the "automatic[]" communications in limitation 1[d] of claim 1, arguing that neither Kloba nor Multer, alone or in combination, teach or suggest automatically communicating information from a device/asset to a server. PO Resp. 38–45. In particular, Patent Owner argues Kloba merely discloses *manual*, not *automatic* synchronization. *Id.* at 39. Patent Owner contends

that Multer's synchronization "does not disclose automatically communicating particular information from the device [asset] to the server (i.e., uploading) as required by the claims." *Id.* (citing Ex. 2029 ¶¶ 79–92). Patent Owner argues that Multer merely discloses "automatically sending a request for synchronization in the reverse direction (*i.e.*, from the server to the device [Multer's 'pull' direction])," which "is completely opposite of what is claimed (i.e., from the device to the server)." *Id.*

Many of Patent Owner's arguments materially track arguments the Board dismissed in the '1892 FWD. Toward that end, we adopt and incorporate by reference the findings and reasoning set forth in the '1892 FWD. *See* '1892 FWD 42–49; Reply 22–26 (noting similarities with arguments in the '1892 FWD). Although Patent Owner raises some new arguments and evidence here, none give rise to a reason to deviate from the Board's prior holding on the same issue. For example, citing Mr. Berg's testimony, Patent Owner argues that periodic synchronization would not be optimal for a user, because "she would know the optimal time to initiate a manual synchronization with the server." *See* PO Resp. 42 (citing Ex. 2029 ¶ 89). Petitioner persuasively replies that "POSITAs would have seen value in periodic synchronization in addition to manual synchronization." Reply 24–25 (showing that "Mr. Berg admitted that he had not considered scenarios in which periodic device-to-server communications was among several options" (citing Ex. 1029, 169:14–170:25)).

Moreover, collateral estoppel prevents Patent Owner from re-litigating the issue of whether the combined teachings of Kloba and Multer render limitations 1[c] and 1[d] obvious, as Petitioner argues. Reply 22–26; Pet. Supp. Reply 4–7. As Petitioner argues, element [1c] of the '477 patent

contains "identical limitations" to elements 1[c] and 1[d] of the '358 patent previously litigated in the '1892 proceeding. Nothing in the respective elements relates to other claim elements in a manner that raises a materially different issue with respect to the previous determination by the Board that the combination of Kloba and Multer renders this limitation obvious. *See* '1892 FWD 39–49.

As Petitioner also argues, Patent Owner "cannot argue that the intervening change in claim construction standard bars collateral estoppel because [Patent Owner's] arguments regarding Multer do not implicate any disputed claim constructions." Reply 23. Patent Owner does not advance a claim construction argument that implicates the "automatically resulted from" limitation at issue here, let alone an argument that turns on the claim construction standard. *See* PO Resp. 1–20 (no claim construction for "automatically resulted from" proffered).

Notwithstanding Patent Owner's arguments that Patent Owner "raised new issues" here "[f]or the first time in any forum" (PO Supp. Br. 17), Patent Owner had a full and fair opportunity to litigate, and did litigate, the issue of whether the combination of Kloba and Multer renders this limitation obvious, which was necessary to the judgment. *See* '1892 FWD 39–49. Also, the record shows, as Petitioner argues, that Patent Owner did not appeal the Board's holding in the '1892 FWD that Kloba and Multer teach the materially same "automatically resulting from" limitation at issue here. *See* Ex. 1204, 1–5, 47–61; Pet. Supp. Br. 5 (Patent Owner "chose not to appeal these findings, rendering the Board's decision final with respect to those issues for purposes of collateral estoppel.") (citing *Smith Int'l, Inc. v. Hughes Tool Co.*, 718 F.2d 1573, 1580 (Fed. Cir. 1983) (recognizing that the

district court's adjudication of infringement was final and conclusive because "[n]o issue relating to infringement was appealed"); *Power Integrations, Inc. v. Semiconductor Components Indus., LLC*, 926 F.3d 1306, 1312 (Fed. Cir. 2019) (collateral estoppel would have applied to non-appealed decision but for lack of incentive to litigate exception); *Daniels v. Merit Sys. Prot. Bd.*, 306 F. App'x 567, 569 (Fed. Cir. 2009) (recognizing that collateral estoppel applied because the Merit Systems Protection Board decision "became final by operation of law" when petitioner did not appeal the Board's decision to the Federal Circuit)).

Accordingly, Patent Owner is precluded from relitigating the materially identical issue of whether Kloba and Multer teach the "automatically result[ing] from . . . preprogrammed conditions" as recited in limitations 1[c] and 1[d] of claim 1. Based on the foregoing discussion, Petitioner shows by a preponderance of evidence that the combination of Kloba and Multer would have rendered obvious the subject matter of claim 1 involving the communications "automatically result[ing] from . . . preprogrammed conditions" as recited in limitations 1[c] and 1[d] of claim 1.

e. Limitation 1[f] ("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")

For limitation 1[f], Petitioner relies on Kloba. Pet. 35–39. Petitioner argues that (i) Kloba's server provides "instructions . . . [that] are 'management instructions' [as claimed] because they command mobile devices [('consumer device assets')] to perform a particular action: to synchronize their content with the content of outside providers" (*id.* at 36 (citations omitted)); (ii) Kloba teaches that "the server sends the instructions to the mobile devices and . . . the instructions cause the stored display data content files of the [mobile] devices to be automatically modified" (*id.* at 36–37 (citations omitted)); and (iii) Kloba's "one-down" synchronization transmission (which includes synchronization instructions, including deltas instructions, and objects sent from the server to mobile devices) "is based upon the results of the server having processed the information it received in the 'one-up' [synchronization] transmission (which includes consumer usage information sent by mobile device to server, and relating to a user's selection of channels and preferences)" (*id.* at 37–39 (citations omitted)). Petitioner asserts that even under Patent Owner's narrow construction for claim limitation 1[f] (*supra* § II.B.4), "Kloba's 'management instructions' are based upon the server's processing of 'consumer usage information' about the user's selections." *Id.* at 39.

Patent Owner does not address Petitioner's persuasive showing based on Petitioner's broad construction. *See* PO Resp. 45, 45–55 (arguing against Petitioner's showing regarding managing limitation 1[f] "when properly construed" according to Patent Owner's narrow construction); Reply 17 (arguing that Patent Owner "limits its arguments regarding the 'managing' limitation to its own [narrow] construction and does not dispute that Kloba discloses this limitation under the plain language"). As discussed further below, collateral estoppel prevents Patent Owner from relitigating whether Kloba and Multer render limitation [f] obvious under the broad construction. As will be apparent in the discussion below, Petitioner's showing with respect to the narrow construction overlaps with its showing with respect to the broad construction, because if Kloba teaches limitation [f] under the narrow construction it also teaches it under the broad construction.

Regarding the application of collateral estoppel to the narrow construction, Patent Owner asserts that "the prior [panel] [in the '1892 FWD] declined to address or reach the merits on any of the issues [Patent Owner] has raised herein on grounds that [Patent Owner] had waived the right to make any patentability arguments under its 'new construction'" so that "none of these issues was ever 'actually determined' by the prior [panel]." PO Supp. Br. 13 (citing Ex. 1024, 248 (a portion of the '1892 Rehearing Decision)). Based on the respective briefing of the parties, Patent Owner raises a valid point.

Although Petitioner shows that limitations in the '358 patent independent claims 1 and 20 are materially the same as those at issue here in the '477 patent, Petitioner "does not contend that the Rule 36 affirmance or

the Board's alternative findings have preclusive effect under Federal Circuit law." *See* Pet. Supp. Br. 11.

Also, Patent Owner shows that it lacked an opportunity to fully and fairly litigate the issue of whether Kloba teaches the respective limitations under Patent Owner's narrow claim construction of the managing limitation (*see supra* § II.B.4), and also that the Federal Circuit may have affirmed the '1892 FWD for alternate reasons (including waiver of the narrower construction). *See* PO Supp. Br. 4–5 (arguing collateral estoppel does not apply if the reason for the holding is ambiguous, and "collateral estoppel does *not* apply where that judgment was 'independently predicated on alternative grounds'" (quoting *TecSec*, 731 F.3d at 1343)), 7 (asserting different claim construction standards preclude estoppel), 12–13 (noting the prior panel's finding of waiver in the '1892 FWD); *supra* § II.B.4 (claim construction of the managing limitation); Ex. 1024, 47–61 & n.15 (Patent Owner arguing the managing limitation of claims in the '358 patent and noting the Board's finding of waiver on the narrow construction).

As indicated above, Patent Owner argues under its narrow construction of limitation 1[f], that the "'management instructions' themselves [must] be based upon the results of the server's processing of 'consumer usage information' in at least the sense that *the server's ultimate determination to include those particular instructions* in a transmission it sends for purposes of causing resulting modifications to a 'consumer device asset' is what needs to be predicated upon such processing." PO Resp. 45 (emphasis added); *see supra* II.B.4 (Claim Construction of limitation 1[f]).

Patent Owner characterizes Petitioner's showing under Patent Owner's narrow construction as

> offer[ing] two alternative theories for how Kloba ostensibly teaches that its server would make a particular determination to send "management instructions" based upon its processing of Petitioner's alleged FIGS. 12 and/or 17 examples of "consumer usage information" -- one theory purportedly premised on an express disclosure, and the other on an inherent disclosure.

PO Resp. 45–46 (citing Pet. 36–39).

According to Patent Owner, Petitioner's first theory fails because "it is demonstrably incorrect that Kloba's 'deltas' instructions are downloading instructions for causing *new* data files to be stored on mobile devices, or that they are therefore in any manner based upon the results of the server's processing of FIGS. 12 and/or 17 information." PO Resp. 47 (citing Ex. 2029 ¶¶ 94–96) (emphasis added).

Quoting Kloba, Patent Owner explains that

> in Kloba "a delta is a set of differences between versions of content or, more generally, objects (i.e., different versions of the same pages, documents, links, images, applications, services, etc.). In other words, deltas are sets of differences in the state of the objects currently being offered [by provider 128 websites] and the state of the objects in client 108."

PO Resp. 47–48 (quoting Ex. 1006, 19:54–59; citing Ex. 2029 ¶ 95).

Although Patent Owner quotes this passage, Patent Owner does not even assert that selecting an object via the menu of Figures 12 (e.g., FOX SPORTS channel) or Figure 17 (e.g., SHOW IMAGES) does not correspond to a delta according to this passage. *See* PO Resp. 47–49. Rather, Patent Owner contends, in a footnote, that *Petitioner distinguishes* Kloba's deltas from information regarding a user's selection by referring to "information about a user's selection of channels [FIG. 12] and preferences [FIG. 17] *as well as* 'deltas.'" PO Resp. 48 n. 14 (quoting Pet. 38 (emphasis added)).

But in context, in view of Kloba's teachings, and Petitioner's showing, "as well as deltas" simply includes providing information about the difference between what is selected (i.e., what is selected by the device and offered on the server) and what exists on the device in terms of the state of a channel or object, where a difference might include the name of the channel/object, its location (including a root object URL), its size, and other properties.[14] Supporting this understanding, Petitioner relies on Kloba's server providing "synchronization instructions and objects" after receiving "'*delta' information about existing objects and channel/preference selections*." Reply 18 (citing Ex. 1006, 19:51–20:13, 20:50–53, Figs. 1I1 and1X) (emphasis added).

Patent Owner also contends that during the oral hearing in the '1892 IPR, Petitioner admitted that a "delta is a change in a file that already exists on a device," and that "the specific delta instructions that are transmitted from the server [based on the delta] to the device are instructions for causing existing content on the device to be modified." PO Resp. 49 (citing Ex. 2023, 14:9–11, 16–20, 15:1–4, 41:1–3). Patent Owner also argues that "Kloba's 'deltas' instructions are indisputably not *downloading* instructions for adding new data files such as FIGS. 12/17 files to mobile devices, but rather *updating* instructions for modifying existing files that already reside

[14] According to Kloba, "[a] channel includes a number of properties," including, "[a] name of the channel," "[a] location of a root object (such as not limited to a URL)," "[a] maximum size of a channel," "an indication of which resource objects are enabled," "[a]n indication of whether or not images are to be included in or excluded from objects in the channel." *See* Ex. 1006, 7:27–32.

on mobile devices so as to 'synchronize the deltas from the client 108 with providers 128.'" *Id.* at 49 (citing Ex. 1006, 20:12).[15]

Patent Owner also argues that "Kloba expressly distinguishes information relating to newly requested data files ('desired information') from 'deltas' information that reflects 'synchronization changes' to existing data files already residing on mobile devices." PO Resp. 48 n.14 (citing Ex. 1006, 20:51–56). Patent Owner also argues that Kloba's delta instructions in the one-down transmission only respond to the deltas in the one-up transmission, so "that the server would make the exact same determination to include a needed 'deltas' instruction in a subsequent one-down sync transmission to a mobile device *irrespective of whether or not any given one-up transmission had ever included any FIGS. 12/17 information at all*." *Id.* at 51 (emphasis added).

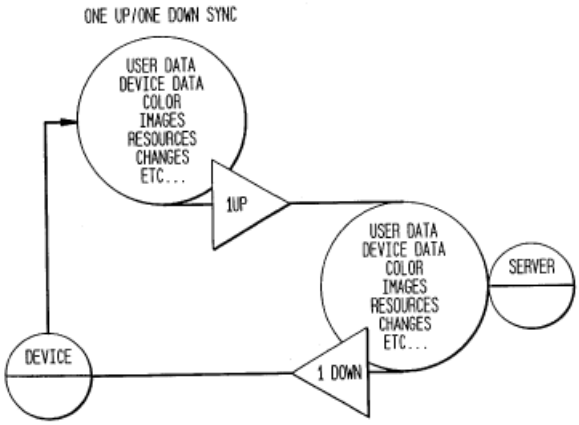
Contrary to the thrust of Patent Owner's arguments, Kloba does not refer to a selection of a new channel or preference as distinct from using at least some delta information to facilitate the selection. And as noted above, Petitioner relies on Kloba's teachings of a consumer asset providing delta information about existing objects and new channel and preference

[15] Essentially, Patent Owner refers to all server instructions in Kloba as "delta instructions" or "deltas instructions" to the client, because Patent Owner contends that Kloba's server only produces such instructions based on coordinating deltas information from the client. *See, e.g.*, Tr. 101:5–10 (Patent Owner arguing that "[i]f your read column 19 and 20 in context, it's crystal clear that what this is saying is that these delta instructions are based exclusively on deltas information . . . from the mobile device and the server and coordination between the two and it's sent down as an instruction to make a delta change to an existing file on the mobile device.").

selections to a server, which then provides the desired information *and* instructions. *See* Pet. 38; Reply 18; Ex. 1006, 21:1.

In particular, Petitioner relies on Kloba's server as providing "synchronization instructions and objects" after receiving "'delta' information about existing objects and channel/preference selections." *See* Reply 18 ("The server then processes that information and, based on that processing, sends synchronization instructions and objects to the client in the one-down transmission. . . . These instructions cause the client's display data content files to be modified.") (citing Ex. 1006, 5:53–61, 8:7–19, 19:22–38, 19:51–20:25, 20:51–56, 34:52–54, Fig. 1I1, Fig. 1X).

The Petition and Dr. Kesidis reproduce Kloba's Figure 1X, which follows (*see* Pet. 31; Ex. 1005 ¶ 231):



Kloba's Figure 1X above shows "another view of the synchronization process" (Ex. 1006, 20:50) wherein the server responds to "USER DATA[,] DEVICE DATA[,] . . . RESOURCES[, and] CHANGES," in a one-up transmission with a one-down transmission. In describing Figure 1X, Kloba states that initially, "the device 106 or client 108 *provides information about itself and the content it wishes to receive* in a single 'up' transmission, and the server 104, *upon identifying the device 106 or client 108*, *returns the*

desired information along with new synchronization changes in a single 'down' transmission." Ex. 1006, 20:51–56 (emphasis added). The server also responds to "future transmissions" from the client device, which sends "*information* which has changed since the last synchronization," and then, in response, the server responds with "[s]ynchronization tokens" that represent "the information which has changed since the last synchronization session." *Id.* at 20:56–60. Kloba also states that in response to a single up transmission, in one embodiment, server "module 156 would cache all the *information and instructions* on behalf of the client and transmit them in all at once." *Id.* at 21:1–2 (emphasis added).[16]

In other words, by selecting a new channel via Figure 12 or preference via Figure 17, this represents "USER DATA[,] DEVICE DATA[,] . . . RESOURCES[,] CHANGES," or "information about itself [i.e., the client] and the content it wishes to receive in a single 'up' transmission." In

[16] In the '1892 FWD, the Board made a similar finding with respect to Figure 1X:

> Thus, Figure 1X reaffirms that Kloba sends all instructions and objects (including deltas, new channels, and preferences) in a single transmission, not as separate synchronizations as Patent Owner argues. The server communicates *its single set of instructions to the client as a result of processing all of the information it receives in the single-up transmission from the client*. This includes deltas, requests for new channels, and changes to preferences. *Id.* at 8:7–19, 19:51–22, 20:50–56. Thus, we find that the server sends communications containing management instructions to the client, and thereby manages the client, "based upon the results of processing at least some of the received consumer usage information," as recited in claim 1.

'1892 FWD 53 (emphasis added).

response, the server transmits "*information and instructions* on behalf of the client . . . all at once." Ex. 1006, 21:1–2 (emphasis added).

Citing the same column 20 passage describing Kloba's Figure 1X, Patent Owner contends that it shows that "Kloba expressly distinguishes information relating to newly requested data files ('desired information') from 'deltas' information that reflects 'synchronization changes' to existing data files already residing on mobile devices." PO Resp. 48 n.14 (quoting Ex. 1006, 20:51–56). But contrary to Patent Owner's arguments, the cited passage does not describe restricting "synchronization changes" to "existing files." Rather, the server responds with these "synchronization changes" to "information about [the client] and the content it wishes to receive." *See* Ex. 1006, 20:51–56. And even if Kloba restricts "synchronization changes" to changes to existing files and only existing file changes relate to deltas, as set forth above, Kloba defines a channel or object state in terms of channel properties such as the name, location (URL), size, etc., of the channel. *See supra* note 14 (quoting Ex. 1006, 7:27–32); Pet. 33 (relying on Kloba's device to send information related to channels using Figures 12 and 17), 37–38 (relying on selecting channels or objects including deltas to invoke management instructions).

Therefore, as Petitioner shows, Kloba discloses or at least suggests that selecting a new channel with a delta simply involves providing a change (delta) to one or more of these properties relative to an existing channel on the device. *See* Ex. 1006, 7:27–32 (describing channels as any content, including a "collection of objects," including "applications," "services," or "links, etc."), Ex. 1006, 19:54–59 (defining deltas under "one embodiment" as a "set of differences" applicable to any "content" or "object" version,

including "applications" or "services"); PO Resp. 47–48 (quoting Ex. 1006, 19:54–59; citing Ex. 2029 ¶ 95).

Moreover, the relied-upon passage describes the server as responding with "*information and instructions*" to any one-up sync input from a device requesting changes. Ex. 1006, 21:1–2 (emphasis added), Fig. IX (one-up sync includes "USER DATA," "DEVICE DATA" "CHANGES ETC"). It alternately and similarly describes the server as transmitting "desired information along with new synchronization changes in a single 'down' transmission" (*id.* at 20:55–56), in response to "the device 106 or client 108 provid[ing] information about itself and the content it wishes to receive in a single 'up' transmission" (*id.* at 20:51–53). Based on the one-up "USER DATA," "DEVICE DATA" "CHANGES ETC" input as portrayed in Figure 1X, the "content" the user "wishes to receive" in a first synchronization does not exclude, but includes, reliance on existing data files, even if it relates to adding new data files, as Patent Owner concedes. *See* PO Resp. 48 n.14 (arguing that "desired information" relates to "newly requested data files").

In other words, the server generally responds to change requests during a first synchronization with "desired information *along with* new synchronization changes," and in general during a synchronization, the server transmits "the [desired] *information and instructions*." *See* Ex. 1006, 20:54–55, 21:1–2 (emphasis added). So Kloba expressly discloses sending "information and instructions" or "desired information *along with* new synchronization changes," even when a user requests new information or objects (e.g., CHANGES, *see* Fig. 1X), as Petitioner shows. *See, e.g.*, Pet. 33–39.

Tying the general view of one-up and one-down synchronization of Figure 1X and specific teachings at column 20 to one up and one down synchronization teachings with respect to described channel menu selections of Figure 12 at column 34, Petitioner describes the following:

> First, a device sends information related to channels (*i.e.*, Internet content) that the user "elect[ed] to subscribe to" while using the device "in the off-line mode." [Ex. 1006,] 34:50–52, Fig. 12 (showing "an example screen shot representing a channel subscription page displayed on the client 108"). The device sends that information to the server during synchronization. *Id.* 20:51–53 ("*the device 106 or client 108 provides information about . . . the content it wishes to receive in a single 'up' transmission*"), Fig. 1X (showing the single up ("1Up") transmission from a device to the server).

Pet. 33 (emphasis added). Petitioner also states that "[a]s with all other information sent from user devices to the server, the device sends both types of 'consumer usage information' in the single 'one-up' transmission of the synchronization process." *Id.* (citing Ex. 1006, 19:65–67, 20:18–21, 20:51–53, Fig. 1X; Ex. 1006, ¶ 238). Then, Petitioner relies on Kloba's one-down transmission to send all synchronization instructions and objects. *Id.* at 37–38.

Stated another way, Petitioner relies on Kloba's one-down synchronization instructions to add new files or objects after a consumer uses the menus of Figures 12 or 17 in a one-up transmission for selecting changes. *See* Pet. 36–39 (citing Ex. 1006, Figs. 1I1, 1X; Ex. 1005 ¶¶ 231, 247–248; Reply 13–22. Petitioner similarly contends that Figure 17's menu provides for requesting object changes for existing files using Kloba's delta instructions. *See* Reply 21–22.

At the top of the column 20, referring to process steps in relation to Figures 1H1 and 1I1, Kloba describes processing "deltas from client 108" and describes instructions generated as a result of processing the deltas and other information from providers: "Based on the information from provider(s) 128, synchronization modules 155 *compile instructions* to synchronize the client 108 with providers 128 (step 172D). Synchronization module 155 sends *such instructions* to client 108, plus updated data marker (step 172E)." *See* Ex. 1006, 20:13–18 (emphasis added); *see also id.* at 20:19–22 ("Thus, the invention achieves a one-up/one-down synchronization process, thereby improving performance. The *instructions* are transmitted via any reliable transport medium.") (emphasis added); PO Sur-reply 19 (citing Ex. 1006, 5:53–61, 8:7–19, 19:51–20:22, 20:50–56, Figs. 1I1 and 1X); Reply 20–21 (citing Ex. 1006, 20:18–20, 20:53–56, Fig. 1X).[17]

At one point, Petitioner refers to Kloba's "*alleged* 'delta instructions'" (Reply 21 (emphasis added)), signifying that it uses the term to respond to

[17] The top of column 20 describes steps 172C–E, involved in Figure 1H1 as shown also in full in Figures 1I1 and 1I2. Ex. 1006, 19:51–20:28. The bottom of column 20 describes Figure 1X, which "is used to generally describe [an] embodiment[] of the invention." *Id.* at 3:21–23. Even though the two embodiments include some differences, in the '1892 FWD, the Board found that "Figure 1X is consistent with Figure 1I1. Figure 1X is 'another view of the synchronization process,' not a separate synchronization process for new channels." '1892 FWD 53 (quoting Ex. 1006, 20:50). As to the consistency between the two embodiments (i.e., Figure 1X and 1I1), the Board found that "Figure 1X reaffirms that Kloba sends all instructions and objects (including deltas, new channels, and preferences) in a single transmission, not as separate synchronizations as Patent Owner argues." '1892 FWD 53.

Patent Owner, whereas Patent Owner contends that Kloba discloses delta instructions, even though Kloba does not explicitly refer to delta instructions. *See* PO Sur-reply 18–20. The description of Figure 1X does not mention deltas or delta instructions explicitly. In any event, as explained above with respect to Figure 1X, and as Petitioner shows, requesting a new channel using Figure 12's channel menu or Figure 17's preference menu falls into the ambit of providing "information about itself [i.e., the consumer asset] and the content [the consumer asset] wishes to receive" (Ex. 1006, 20:52), and the server responds by transmitting "information and instructions" to update the "content [the consumer asset] wishes to receive" (*id.* at 21:1–2).

As discussed above, Petitioner shows that "Kloba's server processes all information in a one-up transmission from a client—including channel/preference selections and 'deltas'—to determine what new content to obtain and what changes to make to existing content." *See* Reply 20 (citing Ex. 1006, 8:12–19, 20:11–17). Then, as Petitioner argues, "[b]ased on processing that information, the server compiles *new content and instructions* into a unified one-down transmission to the client." *Id.* (citing Ex. 1006, 20:53–56) (emphasis added).

As Petitioner notes, Patent Owner "does not dispute that at least the alleged 'delta instructions' constitute 'management instructions.'" Reply 21. Petitioner also relies on Kloba's disclosure that the "server compiles new content and instructions into a unified one-down transmission to the client." Reply 20 (citing Ex. 1006, 8:12–19, 20:11–17 ("synchronization modules 155 compile instructions to synchronize the client 108 with providers 128"). According further to Petitioner, "the server's determination of specific

content to include in the one-down transmission—including [but not limited to] the alleged 'delta instructions'—is based on the server having processed the consumer usage information in the one-up transmission." *See id.* at 21 (emphasis added).

Quoting Kloba, the Petition also states that "'[s]ynchronization' refers to the 'process of copying, *adding*, filtering, removing, *updating* and merging the information between a client and a server.'" Pet. 36 (quoting Ex. 1006, 5:48–50) (emphasis added). Further quoting Kloba, the Petition states that "the selected channels are loaded on the client 108 during the next synchronization operation." *Id.* (quoting Ex. 1006, 34:52–54).

In its Sur-reply, Patent Owner contends that Petitioner fails to show that "Kloba satisfies elements 1[f]/20[g] as properly construed by either expressly or inherently disclosing that its server makes a particular determination to include 'management instructions' in a one-down synch transmission based upon the results of processing of [Petitioner's] FIGS. 12/17 examples of 'consumer usage information.'" PO Sur-reply 18. According to Patent Owner, Petitioner offers "no new expert testimony to counter [Mr.] Berg," and Petitioner merely "presumes that Kloba's one-down synch transmissions inherently must contain downloading 'management instructions' for 'adding' new FIGS. 12/17 data files." *Id.* at 20–21. In an apparent reference to its argument that the Petition relies on inherency, Patent Owner also contends that Petitioner "contravenes §42.23(b) by newly arguing that Kloba contains an 'express disclosure that instructions are needed' to perform all types of synchronization, including both 'adding' and 'updating' objects on the client." *Id.* at 21 (quoting Reply 20).

To support its arguments that adding new channel/object files to a client via the menus of Figures 12 and 17 does not require any management instructions from Kloba's server, Patent Owner relies on "sophisticated software residing on mobile . . . . devices," including browser software to handle new objects, and also Kloba's teachings for optimizing content at the server, so that the mobile devices do not need "management instructions." *See* PO Resp. 53–54; PO Sur-reply ("Kloba expressly teaches that all optimizations that the server performs based upon such 'state information' are applied only to new data file objects on the server itself prior to sending them down to the mobile devices.") (citing Ex. 1006, 5:63–6:41, 24:10–52, 28:20–36).[18]

The record does not support Patent Owner's arguments or characterization of Kloba's teachings. As discussed above, Petitioner's showing does not relate to merely requesting new data files, even if Kloba teaches applying state information to new data files. Contrary to Patent Owner's arguments and Mr. Berg's testimony, Kloba does not expressly teach applying state information only to new data files at any of the cited passages. Kloba does not even mention new data files at the cited passages. *See* Ex. 1006, 5:63–6:41, 24:10–52, 28:20–36. Rather, Kloba refers to transforming or optimizing an object from a third party that a client

[18] Patent Owner argues "these facts were . . . admitted in the Petition." PO Sur-reply 20 (citing PO Resp. 55 n.16). Contrary to Patent Owner's characterization, Petitioner simply explained that Kloba's "server optimizes the content for display within the preferences and other parameters of the device." *See* PO Resp. 55 n.16 (citing Pet. 15–16). As explained herein, optimizing is simply a separate operation within synchronizations that include instructions.

requested using the client's state information. *See* Ex. 1006, 23:30–24:47. But as discussed above in connection with Figure 1X, a client requests new objects via the synchronization process that involves existing files and instructions. In other words, even though Kloba's server provides optimization, transformation, and translation, and Kloba's browser may process downloads, Kloba describes such server operations as part and parcel of the synchronization process that also includes instructions. *See, e.g.*, Ex. 1006, 23:49–55 (server may simply pass an object to a client to optimize it during synchronization), Ex. 1006, 24:15–18 (translation, transformation, and optimization during synchronization step 176G using synchronization module 124).

Mr. Berg's testimony narrowly relates to optimization in, for example, the size of delivered objects or other similar transformations, to allow "the display to fit within the parameters of client 108." *See* Ex. 2029 ¶ 106. Mr. Berg's testimony also narrowly relates to generic layout and rendering software and/or a generic operating system with a browser in the mobile device to display objects. *See id.* ¶¶ 107–110. Based on these software and rendering teachings in Kloba, Mr. Berg concludes that "a POSITA would understand that . . . the Kloba device would already know how to receive, store and display content from the server, and that there would be no need for any additional instructions from the server (which has already optimized the content)." *Id.* ¶ 110. But this testimony glosses over the fact that Kloba describes the synchronization process as including both synchronization instructions and optimizing for display, etc. *See, e.g.*, Ex. 1006, 23:49–55 (server may simply pass an object to a client optimize it during synchronization), 20:1–21:2 (discussing synchronization instructions in

general); Ex. 1006, 24:15–18 (web synchronization module responds to state information).

For example, as the Petition notes, "the server's web *synchronization* module 'obtains an object from provider 128 . . . which conforms to that which is requested by client's 108 state information.'" Pet. 35 (quoting Ex. 1006, 24:10–13 (emphasis added)). According to the Kloba passage relied upon by Petitioner, if Kloba's server decides to optimize an object from a third party selected by a consumer, "web *synchronization* module 124 translates/transforms/optimizes the object for use by a particular client. The state information of the device 106 and/or client 108 is considered in this optimization process." Ex. 1006, 24:15–18 (emphasis added); *see* PO Resp. 53–54 (addressing optimization). During synchronization, the server module considers, *inter alia*, user profiles, dynamic and other memory specifications, cookies, and applications on the device, "when determining what, if any, transformations/conversions/optimizations to perform" during synchronization. Ex. 1006, 24:20–47.

So even though Kloba's server optimizes objects and responds to state information as Patent Owner argues, Kloba also describes instructions sent during a general synchronization process, as discussed above in connection with Kloba's teachings (including Figure 1X). *See, e.g.*, Ex. 1006, 20:1–21:2, 24:20–47. In other words, as Petitioner persuasively argues, Patent Owner's arguments that Kloba's browser, rendering, state information, and other software teachings *preclude* Kloba's server instructions are "inconsistent with Kloba's *express disclosure that instructions are needed to* 'synchronize the client . . . with providers' and that such synchronization includes 'adding' and 'updating' objects on the client." Reply 20 (citing

Ex. 1006, 5:48–50, 20:14–25, Figs. 1H1, 1I1) (emphasis added).

Quoting Kloba, the Petition states that "during the synchronization process, . . . the server 104 *will load* the client 108 with the objects associated with the channels." *See* Pet. 35 (quoting Ex. 1006, 8:16–19) (emphasis added); Reply 19 (describing loading (quoting Ex. 1006, 8:11–13, 34:52–54)). Because the "server . . . load[s] the client" as a response to a client request during a synchronization process, and the server sends "synchronization" "instructions" or "synchronization changes" (*see* Ex. 1006, 20:14–24, 20:50–21:2, Fig. 1X) as part of the general synchronization process, Kloba discloses "management instructions."

At the cited column 34 passage, Kloba specifically describes Figure 12 as a "channel subscription page" wherein "a user can subscribe to channels listed" thereon and "the selected channels are loaded on the client 108 during the next synchronization operation." Ex. 1006, 34:49–54. At the cited column 8 passage, Kloba states as follows:

> During a synchronization process, *the server 104 loads a device 108 with the channels associated with the client 108*. Generally, the server 104 does this by obtaining from providers 128 the objects defined by the channels, and *causing those objects to be stored on the client 108*. Thus, *during the synchronization process, the server 104 will load the clien*t 108 with the selected channels. More particularly, *the server 104 will load the client 108* with the objects associated with the channels.

Ex. 1006, 8:12–19 (emphasis added).

Further supporting Petitioner's showing that Kloba's *server causes loading* of a client with objects/channels via instructions during synchronization, Kloba broadly teaches that creating new channels or user preferences, or any new information ordered by a client, occurs as part of the synchronization process: "The usage of the term 'sync,' as described herein,

refers to the overall operation of connecting a client to a server for the exchange, interaction, *creation*, and *removal* of data." *Id.* at 5:32–35 (emphasis added). "Synchronization is meant to refer to the specific process of copying, *adding*, filtering, *removing*, *updating* and *merging* the information between a client and a server." *Id.* at 5:48–50 (emphasis added). *See* Pet. 36–37 (quoting the passage and other related passages in Kloba (citing Ex. 1005 ¶¶ 246, 248; Ex. 1006, 3:63–4:19, 5:48–50, 8:13–16, 20:16–17, 20:23–25; '1892 FWD 51)).

These synchronization teachings go hand-in-hand with the explicit server synchronization and compiling instructions that Kloba teaches at columns 20–21 and Figure 1X. Patent Owner characterizes Petitioner's reliance on Kloba's "adding," "updating," and loading teachings as a mere "inherency theory," alleging that Kloba at most teaches "instructions . . . used in certain preferred embodiments that pertain strictly to updating existing files . . . with 'deltas' changes." *See* PO Sur-reply 21. However, as noted above, Kloba's Figure IX teachings include "USER DATA," "DEVICE DATA," "CHANGES," "ETC." (i.e., consumer usage information) with or as deltas, from a client. *See* Ex. 1006, 21:50–21:2, Fig. 1X. Based on this usage data and selections for changes from the client, the server provides the selected "information along with new synchronization" or "all the information and instructions on behalf of the client" (management instructions) to effectuate the adding and updating (i.e., change) requests. *See* Ex. 1006, 21:50–21:2. That is, Figure 1X represents "another view of the synchronization process" that includes the adding and updating changes in Kloba's synchronization process. *See* Ex. 1006, 20:50; *accord* '1892 FWD 53 ("Figure 1X is 'another view of the synchronization

process,' not a separate synchronization process for new channels." (quoting Ex. 1006, 20:50)).

Accordingly, Petitioner shows that creating, exchanging, removing, and adding new data, including channels or preferences with respect to a specific client asset's use of Figure 12's and 17's menus during Kloba's synchronization process, includes instructions and involves more than merely rendering, optimizing, and otherwise processing data for display.

Also, contrary to Patent Owner's argument that Petitioner's showing related to the server's updating and adding with instructions during synchronization raises an improper new argument in the Reply under § 42.23(b) (PO Sur-reply 21), as indicated above, the Petition relies on and quotes explicit synchronization instruction teachings in Kloba and the testimony of Dr. Kesidis (which similarly relies on and cites to Kloba). *See* Pet. 36–39 (citing Ex. 1005 ¶¶ 231, 246–249; citing Ex. 1006, 3:63–4:19, 5:48–62, 8:12–16, 19:51–20:25, 20:50–56, 28:20–36, 34:52–54, Fig. 1I1 (synchronization process), 1X (same)).

For example, quoting directly from Kloba in support of the Petition, Dr. Kesidis testifies that synchronization processes of copying, updating, merging, and adding data or objects, goes hand-in-hand with Kloba's synchronization instructions, as follows:

> Kloba teaches that its mobile devices have a "control module" that executes the instructions received from the server. *Id.* at 20:23–25 ("Control module 142 on the client 108 then executes the instructions (step 172F)."). As I have just discussed, these instructions cause the devices to be "synchronize[d] . . . with providers 128." *Id.* at 20:11–15. This synchronization process results in information being "cop[ied], add[ed], filter[ed], remov[ed], updat[ed] and merg[ed]" on the devices. *Id.* at 5:48–

> 50. These actions (*i.e.*, copying, adding, filtering, removing, updating, and merging) are all "modifi[cations]."

Ex. 1005 ¶ 248.

As also noted above, the Petition quotes Kloba's Figure 1X teachings and states that "the device 106 or client 108 provides *information about itself* and the content it wishes to receive in a single 'up' transmission, and the server . . . returns the desired information along *with new synchronization changes* in a single 'down' transmission." Pet. 38 (quoting Ex. 1006, 20:51–56) (emphasis added). This "information about itself *and the content it wishes to receive*" shows that Kloba's process includes adding new information with synchronization changes as discussed above.

The Petition also quotes Kloba as stating that "'[s]ynchronization' refers to the 'process of copying, *adding*, filtering, removing, updating and merging *the information* between a client and a server.'" *Id.* at 36 (quoting Ex. 1006, 5:48–50) (emphasis added). As opposed to a theory of inherency or raising an improper Reply argument (*see* PO Sur-reply 21), in addition to quoted paragraph 248 above, Dr. Kesidis similarly relies on disclosed "instructions" and "adding" of "information" in Kloba such that Kloba's server loads selected channels and preferences during a synchronization operation. *See* Ex. 1005 ¶ 246 (citing Ex. 1006, 8:12–13, 20:11–17, 20:23–25, 34:52–54), ¶ 247 (citing Ex. 1006, 5:58–61, 20:11–15, 20:51–56, 24:15–17).[19]

[19] Patent Owner concedes that Dr. Kesidis testifies about instructions for displaying objects at paragraph 247 of his declaration, but characterizes his testimony as conclusory. *See* PO Sur-reply 20–21 (citing Ex. 1005 ¶ 247). Contrary to Patent Owner's characterization, Dr. Kesidis provides specific citations to Kloba at paragraph 247 and other paragraphs to support his testimony as noted.

Dr. Kesidis also testifies that Kloba's "server can only 'synchronize the client 108 with providers 128' ([Kloba,] 20:11–15) if the server knows and processes the user's selection of content provider channels." Ex. 1005 ¶ 247. Patent Owner does not challenge the premise that Kloba synchronizes different types of client requests, and Kloba supports the premise as discussed above in connection with Figure 1X and other synchronization teachings in Kloba. *See* PO Resp. 52 (citing Ex. 1005 ¶ 247); Ex. 1006, 20:1–21:2. This premise is merely one supporting evidentiary statement from Kloba that Dr. Kesidis relies upon in testifying that "a PHOSITA would have understood that the server must necessarily compile and send the instructions to the devices based on processing at least some of the data related to user-selected channels and/or preferences." *See* Ex. 1005 ¶ 247. In a preceding declaration paragraph, Dr. Kesidis quotes Kloba as stating that "the server 'compile[s] instructions to synchronize the client 108 with [content] providers 128.'" *Id.* ¶ 246 (quoting Ex. 1006, 20:11–15). Patent Owner does not challenge this factual predicate either, but seizes on the "must necessarily" testimony at paragraph 247 as conclusory and based on inherency. *See* PO Resp. 52.

Nevertheless, based on the foregoing discussion, Dr. Kesidis supports the testimony with a logical reading of Kloba based on the perspective of what an artisan of ordinary skill would understand from Kloba's synchronization teachings. *See* Ex. 1005 ¶¶ 246–247. In context, the "must necessarily" language refers to what Kloba implies to an artisan of ordinary skill—simply, the server sends compiled instructions in response to client requests for new information or objects from third party providers. *See* Ex. 1006, 20:1–21:2.

Further supporting Petitioner, as part of the synchronization process of channels/objects as discussed above, Kloba's flow diagrams also show that the server "SENDS INSTRUCTIONS TO CLIENT PLUS AN UPDATED DATA MARKER," and then, a "CONTROL MODULE EXECUTES INSTRUCTIONS." Ex. 1006, Fig. 1I1 (elements 172E and 172F); *see* Pet. 37 (citing Ex. 1006, 20:23–25, element 172F); Inst. Dec. 61 (citing this teaching as raised in the Petition).

Petitioner also persuasively explains that claim 1 "do[es] not require that instructions tell the client *how* to handle objects. Rather, they require only that instructions 'cause the stored display data content files . . . to be automatically modified.' The server's one-down transmission does just that." Reply 20. In Kloba, as noted above, "[d]uring a synchronization process, *the server 104 loads a device 108 with the channels associated with the client 108*. Generally, the server 104 does this by obtaining from providers 128 the objects defined by the channels, and *causing those objects to be stored on the client 108*." Ex. 1006, 8:11–13 (emphasis added); *see* Reply 19 (citing Ex. 1006, 8:11–13; Pet. 36–39). And as Figure 1X shows, in response to consumer requests for certain information, Kloba's server transmits "information *and* instructions on behalf of the client" to effectuate a client device change. Ex. 1006, 21:1–2 (emphasis added).

But even if, as Patent Owner contends, Kloba's explicit server instructions that Petitioner relies upon do not relate to Kloba's synchronization teachings of adding, updating, and loading data objects, Kloba still satisfies the narrow claim construction of the managing limitation, under the parties' agreed upon construction of "management

instructions," as Petitioner also argues. *See* Reply 19–20 (citing Ex. 1006, 5:48–50, 8:11–13, 20:14–25, 34:52–54, Figs. IH1, 1I1); Pet. 36–39; *supra* § II.B.3 (adopting the agreed-upon construction of "management instructions"). The server's responsive loading or adding of objects pursuant to Figure 12 or 17's menu request amounts to a particular responsive data instruction that updates a specific mobile device's files based on consumer usage information *from that specific device*. This responsive loading is a "management instruction" under the parties' agreed upon construction because it includes data transmissions "sent by the server for purposes of modifying device assets." *See* Reply 19 (quoting PO Resp. 10); PO Resp. 10 n.5 ("The parties likewise agree that as to those specification passages describing wireless 'data message' transmissions sent by the server for purposes of modifying device assets, POSITA would understand such 'data' as comprising 'management instructions.'"); *supra* § II.B. 3 (claim construction of "management instructions").[20]

[20] As indicated above, Kloba ties specific server loadings of objects to a specific device or client: "[T]he device 106 or client 108 provides information about itself and the content it wishes to receive in a single 'up' transmission, and the server 104, *upon identifying the device* 106 or client 108, returns the desired information along with new synchronization changes in a single 'down' transmission." Ex. 1006, 20:51–56 (emphasis added). Tying a specific information response to a specific device based on processing the consumer usage information satisfies the narrow claim construction for this additional reason. Stated differently, a non-identified device cannot load the specifically requested object because the server only causes loading of an *identified* device; rather, only the identified device processes the information, indicating a management instruction as construed narrowly by the parties—i.e., a specific instruction based on consumer usage information from a specific device tailored for that specific device. *See supra* § II.B.3

Although Patent Owner does not dispute Petitioner's construction of "management instructions" (*supra* § II.B.3), Patent Owner argues that Petitioner's claim construction argument is "a gross mischaracterization of any position taken by" Patent Owner "in these proceedings." Sur-reply 22. Patent Owner explains that "based on the overall disclosures and teachings of the intrinsic record in its own '477 patent*, POSITA would understand that the 'communicated data' or 'data messages' recited in certain specific passages in that patent would comprise 'management instructions.*'" *Id.* at 22 (emphasis added). Nevertheless, Patent Owner's argument directly supports Petitioner's argument that the '477 patent specification contemplates "management instructions" as including "data messages" from a server that result in modifications to object files as requested by a client. *See id.*; PO Resp. 10 n.5 (quoted above).

The '477 patent specification lends context to the management instructions based on consumer usage information at issue here. Namely, in the embodiment at column 4 directed to the "pull down menus" example (Ex. 1001, 4:28–38), no mention of management instructions exists in the '477 patent's description of that embodiment as discussed above. *See also* PO Sur-reply 5 (referring to the "specification's sole claimed embodiment" and relying on Mr. "Berg's testimony" to contend the embodiment supports "management instructions";[21] *supra* § II.B.4 (claim construction). Similar to

[21] Patent Owner does not provide a citation to Mr. Berg's testimony here, but generally refers to its Response at pages 11–14. *See* Sur-reply 5 (citing PO Resp. 11–14). At pages 13–14 of the Response, Patent Owner cites to paragraphs 39–41 of Mr. Berg's declaration. PO Resp. 13 (citing Ex. 2029 ¶¶ 39–41). But even here, Patent Owner and Mr. Berg only contend that the sole claimed embodiment of the '477 patent teaches what a "POSITA would

Patent Owner's characterization of Kloba, the '477 patent's "pull down menus" example does not indicate that the server necessarily sends any instructions with an optimized or "improved" "pull down menu," and it does not indicate clearly whether the server itself optimizes or improves the menu or sends instructions for the client to do so. *See* Ex. 1001, 4:28–38. Even assuming some type of implied management instructions with respect to the pull down menu embodiment (*see* Reply 14; PO Sur-reply 5), based on the discussion above and a review of the record, Petitioner persuasively shows that Kloba discloses much more with respect to management instructions than the '477 patent specification.

In any event, as determined above, the Petition persuasively cites explicit synchronization instruction teachings in Kloba to tie those to Kloba's synchronization loading or adding teachings, supported by the testimony of Dr. Kesidis. Petitioner persuasively reiterates in its Reply that "Kloba's server processes all information in a one-up transmission from a client—including channel/preference selections and 'deltas'—to determine what new content to obtain and what changes to make to existing content." Reply 20 (citing Ex. 1006, 8:12–19, 20:11–17). Then, "[b]ased on

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appreciate" about the server as sending management instructions. *See* PO Resp. 13. This testimony and evidence do not contradict Petitioner's showing that any disclosed management instructions in the '477 patent are at best implicit in the menus embodiment. As explained above, the claims are broader than the embodiment, at least because they do not require any optimization. *See supra* § II.B.3–4. Yet Mr. Berg relies on such optimization to support Patent Owner's claim construction theory. *See, e.g.*, Ex. 2029 ¶ 39 ("Such information is forwarded 'for the purpose' of allowing its utilization by the server as the basis for determining *what optimizing modifications* should be made to the asset that would 'support the said use of the asset.'" (quoting Ex. 1006, 4:28–38)).

processing that information, the server compiles *new content* and *instructions* into a unified one-down transmission to the client." *Id.* at 20 (citing Ex. 1006, 20:18–20, 20:53–56, Fig. 1X) (emphasis added).

In response to Patent Owner's argument that Kloba does not send delta instructions to add new channels, and assuming for the sake of argument Patent Owner is correct, Petitioner relies on delta instructions to modify existing data files selections selected during a previous synchronization, as follows:

> in Kloba, if an existing channel was first added to or optimized on a client through the Figures 12 and/or 17 interfaces in a prior synchronization, the server's determination to include "delta instructions" for that channel *in a later synchronization* would be based on the server's processing of channel/preference selection information obtained during the prior synchronization. Thus, the server's choice of those "delta instructions" would be based on its processing of consumer usage information from an earlier synchronization.

Id. at 21(emphasis added).

Patent Owner responds that the Reply improperly raises a new argument under § 42.23(b) and also raises an "unsupported attorney argument." PO Sur-reply 20. However, Petitioner's argument merely employs what Patent Owner concedes—that management instructions include Kloba's deltas instructions. The Reply's showing, like the Petition, relies on Kloba's Figures 12 and 17, and the Reply simply fills in gaps in response to Patent Owner's arguments that Kloba's deltas do not relate to new channel or object selections and that Kloba's server only provides optimizations (without delta instructions). *See* Pet. 36–39; PO Resp. 47–51 nn.14–15 (addressing arguments in the Petition and arguing that deltas do

not update new data files) (citing Pet. 36, 38, 39).[22] To support its argument that this Reply scenario fits into the bounds of claim 1, Petitioner persuasively points out that the above-discussed and relied-upon menus embodiment at column 4 in the '477 patent specification allows for cumulative monitoring of an asset. *See* Reply 21.

Substantively, Patent Owner argues that Petitioner "fails to explain how or why this [prior sync scenario] would be true, and clearly during a 'deltas' sync *the Kloba server would already know what channels and files reside on the mobile devices without needing to revert back to prior synchronization requests, even were that somehow possible*." PO Sur-reply 19–20 (citing Ex. 1006, 8:9–10, 19:51–53) (emphasis added). Nevertheless, Patent Owner's argument supports Petitioner's multi-step synchronization scenario based on Kloba. As quoted above, Patent Owner acknowledges that Kloba's "server *would already know what channels and files reside on the mobile devices without needing to revert back to prior synchronization requests*." *See id*. at 19–20 (emphasis added). But Petitioner does not argue that Kloba's server must "revert back" to the prior requests.[23] Patent Owner's argument does not refute Petitioner's showing that Kloba's server

[22] At page 39, the Petition states that "*even if the Board adopts the incorrect [narrow] construction* [by Patent Owner] . . . . [a]s discussed above, the one-up transmission from Kloba's devices includes information regarding a user's selected content and preferences related to that content, *and the instructions sent by Kloba's server to the user's device* contain information about how and in what ways the user-selected content should be downloaded onto the device." Pet. 39 (citing Ex. 1005 ¶ 249; Ex. 1006, 8:12–13, 20:51–56, 28:20–36, 34:52–54, Fig. 1X) (emphasis added).

[23] It is not clear what Patent Owner means by "revert back" or how the "revert back" characterization undermines Petitioner's showing.

processes a new channel selection via Figure 12's menu (consumer usage information) during a prior synchronization step, and then the server provides deltas management instructions in a subsequent synchronization step based in part on that previous consumer usage information (stored in existing files) and based on an update request (deltas) using the preference selection of Figure 17's menu.[24]

The claim 1 limitation at issue, "managing . . . based upon the results of having processed at least some of the received consumer usage information, by sending . . . one or more management instructions," neither requires nor precludes "revert[ing] back to prior synchronization requests." The limitation does require having processed "received" (i.e., current or prior) consumer usage information, and then, under the narrow construction at issue here, basing particular management instructions on that processing. Therefore, Petitioner shows that Kloba satisfies Patent Owner's narrow construction by employing delta instructions in a subsequent synchronization to modify existing channel files "based upon the results of

[24] The Petition raises a similar multiple step synchronization process with respect to consumer preference information as recited in claim 4 (which ultimately depends from claim 1), as addressed below. *See infra* § II.F.1.2; Pet. 43–44 (describing a "first synchronization" and a "future synchronization") (citing Ex. 1006, 10:15–24; Ex. 1005 ¶¶ 266–268). Moreover, as discussed above, Petitioner has maintained consistently throughout this trial that Kloba's server adds new channels (Fig. 12) or preferences (Fig. 17) during a synchronization process. By specifying a previous synchronization occurrence in the instant scenario outlined in the Reply, Petitioner does not alter the thrust of its showing and merely responds to Patent Owner's specific arguments that Kloba's server only optimizes new files content without instructions and does not add new channels using deltas, pursuant to Patent Owner's narrow claim construction.

having processed at least some of the received consumer usage information" from a previous synchronization, where Patent Owner agrees the server "would already know what channels and files reside on the mobile devices" and that management instructions include delta instructions. *See* PO Sur-reply 19.

Continuing with its multiple-step synchronization scenario, Petitioner relies on delta sync instructions to update "existing content" with respect to the menu of Figure 17:

> [T]he Figure 17 preferences are not limited to newly selected channels; *even previously-existing channels need to conform to user preferences*. [Ex. 1006] 5:63–6:41. For example, if an existing channel has a new image or the user changed his/her preference for an existing channel by selecting "show images," the server would need to determine whether and how to load that image onto the device according to the user's preferences. Accordingly, *the server's choice of particular "delta instructions" to send to the client to update existing content would be based, at least in part, on the server having processed any Figure 17 preference selections*.

Reply 21–22 (emphasis added).

Patent Owner replies that this related (i.e., continued from the previous) scenario advanced by Petitioner is also an improper new argument that violates § 42.23(b). PO Sur-reply 20. Again, however, the Reply properly maintains the Petition's reliance on menu selections per Figures 12 and 17 (*see supra* note 24) and only responds to Patent Owner's theory in its Response that Kloba's server only optimizes new content and does not

employ server deltas instructions to add new channels with respect to Figure 12.[25]

Substantively, Patent Owner maintains the Response's line of argument, and replies that Kloba only applies optimizations based on "state information" and that deltas instructions do not apply to new optimized data files with respect to Figure 17. PO Sur-reply 21. This line of argument about optimizations and state information relates to routine functions performed in Kloba during synchronization as explained above, and it fails to undermine Petitioner's showing that relies on providing modifications via Figure 12's and Figure 17's menu selections (consumer usage information) to which Kloba's server responds with deltas (management) instructions to modify existing data files.

As discussed at the outset to this section above, Patent Owner does not address Petitioner's broad claim construction of limitation 1[f]. Based on a full review of the record, Petitioner's showing is persuasive. *See* Pet. 35–39. We also adopt and incorporate the findings and rationale in the '1892 FWD that address the broad construction. *See* '1892 FWD 50–55. In summary, pursuant to Petitioner's broad claim construction advanced by Petitioner and under the claim construction applied in '1892 IPR, "claim 1 only requires that the *sending* of communications containing management instructions, and thus the *managing* of the plurality of consumer device assets by the remote server computer platform, *be based* upon the results of such processing." '1892 FWD 54 (emphasis added).

[25] Moreover, the Sur-reply provides Patent Owner a fair opportunity to respond to the Reply arguments at issue here.

With further respect to the management and management instructions under the broad construction, we include as adopted and incorporated by reference the following:

> Kloba describes sending [management] instructions that cause the data content files on the client to be modified. Ex. 10[06], 19:22–32, 19:36–38, 20:13–17, 20:21–25. Those instructions are sent in communications as part of the synchronization process that is based, at least in part, on the processing of new channel (Fig. 12) and preference (Fig. 17) information. *Id.* at 8:7–19, 19:60–20:25. This is all the claim requires.

'1892 FWD 54–55. Kloba's synchronization instructions cause the data content files on the client to be modified. *See* Ex. 1006, 19:22–32, 19:36–38, 20:13–17, 20:21–25; '1892 FWD 54–55.

Alternatively, collateral estoppel prevents Patent Owner from relitigating the issue of whether Kloba teaches limitation 1[f] under Petitioner's broad construction in part because Patent Owner had a full and fair opportunity to litigate the issue. *See* '1892 FWD 50–55; Ex. 1012 (showing nearly identical claim limitations); Pet. Supp. Br. 9–10 (showing nearly identical claim limitations). It was also necessary to the Board's judgement. *See* '1892 FWD 50–55. And it was necessary to the M2M Federal Circuit Decision as a first step prior to reaching waiver or any arguments related to the narrow construction because a finding that Kloba does not teach the broad construction necessarily means it does not teach the narrow construction (to which the alleged waiver applies). *See* Ex. 1204, 47–64 (Patent Owner's opening brief culminating in the M2M Federal Circuit Decision, addressing the broad construction and arguing the Board did not adequately consider the narrow construction under the proper burden of proof framework).

Based on the foregoing discussion, Petitioner persuasively shows that Kloba teaches the subject matter of claim limitation 1[f].

f. Summary, Claim 1

Based on the foregoing discussion, Petitioner shows by a preponderance of evidence that claim 1 would have been obvious over Kloba and Multer.

2. Dependent Claims 2–6

Petitioner asserts that the proposed combination teaches each of the additional limitations of dependent claims 2–3, which depend from claim 1. Pet. 41–49. Petitioner primarily relies on teachings in Kloba and supports these assertions with citations to the record and the testimony of Dr. Kesidis. *Id.* (citing Ex. 1005). Petitioner also cites the '1892 FWD to support its showing, noting that the '1892 FWD addresses materially similar claim limitations in dependent claims. *Id.* (citing '1892 FWD 55, 57–59); Pet. 41–42 & n.8 ("Patent Owner's alterations to the dependent claims are minor and do not save them."). We adopt and incorporate by reference the cited portions of the '1892 FWD. Aside from limitation 1[f] discussed above, collateral estoppel also applies to the added limitations of claims 2–3, because Patent Owner had a full and fair opportunity to address materially similar limitations in similar claims 2 and 9 of the '358 patent, issues that were actually litigated and necessary to the judgment, as Petitioner shows. *See* Pet. 41–42 & n.8 (citing Ex. 1005, Ex. AA); Pet Supp. Br. 1–2 & n.1; Ex. 1021 (claim chart showing materially similar claim limitations).

Patent Owner does not address claims 2–3 separately from its arguments that address claim 1. *See* PO Resp. 65 n.18. Claim 2 requires one or more of the claimed networks to include "at least one selected from

the group consisting of a cellular mobile network and the Internet." Claim 3 requires the server to store "information indicative of preferences . . . for particular display date content files" on computer assets. Based on a review of the record, Petitioner also persuasively shows that the combination of Kloba and Multer renders claims 2 and 3 obvious.

Claim 4 depends from claim 3 and requires that the server "manages . . . consumer device assets, based upon the results of having processed at least some of the consumer preference information, . . . by sending one or more additional management instructions that cause the stored display data content files for one or more assets to be automatically modified . . . wherein said communications comprise at least one selected from the group consisting of GPRS data messages, EDGE messages, or other wireless packet switched data messages." Claims 5 and 6 depend from claim 4.

To reach claim 4, Petitioner relies on similar server "instructions" that it relies on for limitation 1[f] during a "first synchronization," and adds Kloba's teachings related to "another synchronization" including a "future synchronization" to reach "additional management instructions" as recited in claim 4:

> As discussed above for Element 1[f], during synchronization the server sends "instructions" that cause devices to store or update objects and channels. Kloba, 20:13–17. The server sends these instructions based upon the results of having processed the information about objects requested in advance or the user's preferred channels (*i.e.*, "consumer preference information"). Kesidis ¶ 266. The synchronization (and accompanying instructions) that causes storage of information based on the user's preferences may be in addition to another synchronization. Kesidis ¶ 269. For example, during a first synchronization, the server may load a device with channels actually selected by the user. Kloba, 8:16–17 ("[D]uring the synchronization process,

> the server 104 will load the client 108 with the selected channels."). "[A]t some other future synchronization," the server "might send channels to clients 108 when such channels are identified to be similar to those already selected by the clients 108." *Id.* 10:15–24. Providing and updating channels and other objects for display to a consumer's device provides a service to the consumer. Kesidis ¶ 267.

Pet. 43–44.

Regarding the "wireless packet switched data messages" that claim 4 recites, Petitioner contends the following:

> As discussed above in connection with Element 1[g], the communications between that the server and mobile devices may include wireless packet switched data messages. Kloba, 4:59–63, 9:57–67, 12:13–20, 21:67–22:1; Kesidis ¶ 270. Alternatively, for the reasons discussed above in connection with Element 1[g], PHOSITAs would have found it obvious to use the packet-switched TCP/IP protocol for communications involving the Kloba's wireless consumer device assets. Kesidis ¶ 270.

Pet. 44.

In response, Patent Owner argues that a

> POSITA would understand claims 4/22 as requiring their recited "management instructions" themselves be based upon the results of the server's processing of "consumer preference information," in at least the sense that the server's ultimate determination to include those particular instructions in a transmission it sends for purposes of causing resulting modifications to a "consumer device asset" is what needs to be predicated upon such processing.

PO Resp. 56–57.

Patent Owner also argues that "the 'management instructions' limitations of Claims 4/22 have the same linguistic structure as those recited in claim elements 1[f]/20[g], merely swapping 'consumer preference information' in place of 'consumer usage information.'" PO Resp. 57.

Then, Patent Owner relies "on the same reasoning previously discussed above," namely, a "POSITA would analogously appreciate here that the server could only possibly perform its recited type of managing by determining what particular 'management instructions' would need to be sent to an asset based upon its claimed processing of 'consumer preference information.'" *Id.*

Patent Owner characterizes Petitioner as postulating that "Kloba's server stores two alternative types of 'consumer preference information'":

> First, the server stores information about "objects…requested by client 108 in advance," which can result in the server sending new notification data files to the mobile device "when an event happens, such as when a stock reaches a target price." [(Pet. 42 (citing Ex. 1006, 10:7–10))]. Second, the server stores a "list of channels associated with each of clients 108," which can result in the server's unprompted sending of new data files to the mobile device relating to other unlisted channels "identified to be similar" by the server to those already contained on the list. [(*Id*. (citing Ex. 1006, 8:9–11, 10:12–17))].

PO Resp. 58.

Patent Owner contends that Petitioner relies upon "deltas" instructions (*see* PO Resp. 58–59) and that for the same reasons as argued with respect to claim 1, these "'deltas' instructions, and the server's determinations to include them in transmissions sent to mobile devices, are *completely unrelated to* -- and in no sense 'based upon' – its processing of Petitioner's alleged examples of 'consumer preference information'" (*id.* at 59).

Tracking its arguments with respect to limitation 1[f], according to Patent Owner, Petitioner relies on downloading "deltas" instructions for "new data files." *Id.* (citing Ex. 1005 ¶¶ 266, 269). Still tracking its arguments with respect to limitation 1[f], Patent Owner argues that "Kloba

explicitly teaches instead that its server compiles and sends 'deltas' instructions based exclusively upon processing of 'deltas' information." *Id.*

Petitioner responds that Patent Owner's arguments "mirror its 'management instructions' arguments" for claim 1. Reply 29. Petitioner is correct. Patent Owner explicitly states that

> Patent Owner *has already demonstrated above in the context of claim elements 1[f]/20[g*], Petitioner's arguments must fail because Kloba indisputably and admittedly teaches instead that its "deltas" instructions are not *downloading* instructions used for storing new data files on mobile devices, but rather *updating* instructions for modifying existing files already residing on mobile devices. . . . Moreover, Kloba explicitly teaches instead that its server compiles and sends "deltas" instructions based exclusively upon processing of "deltas" information.

PO Resp. 59 (citations by Patent Owner to its previous analysis of limitation 1[f] omitted) (emphasis added).

With respect to the specific consumer usage information advanced by Petitioner as quoted above (Pet. 44), Patent Owner does not challenge it. Rather, as quoted above, Patent Owner essentially characterizes it without pointing to any deficiency. *See* PO Resp. 58 (quoted above). The record supports Petitioner. As quoted above, similar to its persuasive showing connection with limitation 1[f], according to Petitioner, at least some future synchronizations with respect to consumer preference information in Kloba pertains to existing files and hence delta instructions. *See* Pet. 43–44 (citing Ex. 1006, 10:15–24); Reply 21 (arguing with respect to limitation 1[f] that "the server's determination to include 'delta instructions' for that channel in a later synchronization would be based on the server's processing of channel/preference selection information obtained during the prior synchronization"). As also noted above, Patent Owner does not dispute that

deltas instructions constitute management instructions. *See* PO Resp. 51; Reply 18. In other words, Petitioner persuasively relies on deltas instructions here to be sent with similar channels "at some other future synchronization." *See* Pet. 43–44 (citing Ex. 1006, 10:15–24); Reply 21. And similar to its showing with respect to limitation 1[f], Petitioner persuasively relies on instructions disclosed in Kloba "that cause devices to store or update objects and channels" with respect to newly requested objects. *See* Pet. 43–44 (citing Ex. 1006, 20:13–17; Ex. 1005 ¶ 266).

In its Sur-reply, Patent Owner does not address Petitioner's Reply argument that Patent Owner's arguments "mirror its 'management instructions' arguments" for claim 1. Reply 29. Patent Owner largely repeats its arguments directed to limitation 1[f]. Sur-reply 22–23. In addition, Patent Owner adds the wholly new argument "that examples of 'consumer preference information' already residing on the server are not contemporaneously sent in a one-up sync transmission like FIGS. 12/17 information, and [Petitioner] has provided no evidence that they are processed as a basis for the server's determination to send a one-down sync transmission or to include any 'deltas' instructions therein." *Id.* at 23–24.

We decline to address this new improper argument at this late stage. To the extent an analysis of the untimely argument is warranted, as summarized above, Petitioner shows that at a future synchronization and based on a previous client request during a previous synchronization, Kloba's server sends channel or object information related to the previously requested consumer usage information (object or channel) from a previous synchronization. *See* Pet. 43–44 (citing Ex. 1005 ¶¶266–268; Ex. 1005, 8:16–17, 10:15–24). Based on Petitioner's showing with respect to

limitation 1[f], which Petitioner relies upon with respect to claim 4, Figure 1X and the discussion at columns 20–21 teach that Kloba's server sends such requested information with instructions during a synchronization request. *See supra* § II.F.1e. Also, with respect to the broad claim construction of limitation 1[f], Petitioner shows that "[c]laim 4 is similar to claim 10 of the '358 patent, which the Board found that Kloba discloses." Pet. 42 (citing '1892 FWD 57–59). We adopt and incorporate by reference the cited rationale and findings in the '1892 FWD.

Accordingly, Petitioner persuasively shows that Kloba teaches the limitations of claim 4.

Claim 5 depends from claim 4, and claim 6 depends from claim 5. Tracking its showing with respect to claim 1, Petitioner presents reasons supported by the record to show that the proposed combination of Kloba and Multer teaches each of the additional limitations of dependent claims 5–6, and renders those claims obvious. Pet. 41–49. Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis. *Id.* (citing Ex. 1005). Petitioner also cites the '1892 FWD to support its showing to the extent claims 5 and 6 present similar limitations to those present in the '1892 FWD. *Id.* at 44–45 (citing '1892 FWD 55, 59). We adopt and incorporate by reference the cited portions of the '1892 FWD.

Patent Owner relies on the same arguments it presented with respect to claims 1 and 4 to address claim 5. PO Resp. 59–60. For the reasons noted above with respect to claims 1 and 4, and based on the record evidence and arguments, Petitioner's showing is persuasive.

Claim 6 depends from claim 5 and requires "the . . . wireless packet switched data message communications . . . are encrypted according to a key

pair encryption scheme." Petitioner contends that claim 6 tracks "claim 5 of the '358 patent, which the Board found that Kloba discloses" in the '1892 FWD. Pet. 45 (contending that the "primary differences" include that claim 5 of the '358 patent requires encrypted communications (citing '1892 FWD 55)).

Petitioner cites Kloba to teach or suggest a key encryption scheme. First, Petitioner cites Kloba's disclosure of "secure socket layer stack" (SSL) and cites the testimony of Dr. Kesidis to support its argument that 1) "SSL is a set of cryptographic protocols designed to provide communications security over a computer network," 2) "[b]y the mid-1990s, SSL was widely used to encrypt client/server-based Internet communications," and 3) "SSL [protocols] included symmetric and asymmetric encryption algorithms, both of which used key pairs to encrypt and decrypt communications." Pet. 45–46 (citing Ex. 1006, 9:57–67; Ex. 1005 ¶ 278.

Second, Petitioner contends that Kloba's Figure 28 discloses an asymmetric encryption algorithm, specifically, a "Genuine RSA Encryption Engine." Pet. 46 (quoting Ex. 1006, Fig. 28). Citing the testimony of Dr. Kesidis, Petitioner contends that "[i]n 2002, RSA was a widely-used public-key algorithm for encrypting data transmissions over computer networks," and "RSA used a pair of 'public' and 'private' keys to encrypt and decrypt communications." *Id.* (citing Ex. 1005 ¶¶ 279–282).

Third, Petitioner relies on other "security" teachings as disclosed in Kloba's Figure 30. Pet. 47 (citing Ex. 1006, 35:48–49, Fig. 30; Ex. 1005

¶¶ 283–284). Fourth, Petitioner also points to Kloba's Figure 34, which provides mobile device menu options for a user to "connect securely" to a server. *Id.* at 47–48 (citing Ex. 1006, 34:65, Fig. 34; Ex. 1005 ¶¶ 285–286).

Finally, Petitioner contends that an artisan of ordinary skill would have understood that Kloba's disclosure of SSL and the RSA algorithm of Figure 28 in conjunction with the selectable security features of Figures 30 and 34 teaches "that the server and mobile devices can encrypt all network communications—including wireless packet-switched cellular and/or Internet communications received by and sent from the server (. . . Element 1[g])—using the RSA algorithm, which utilizes a key-pair encryption scheme." Pet. 48 (citing Ex. 1005 ¶ 287; '1892 FWD 55).

Alternatively, Petitioner maintains that even if Kloba does not expressly disclose "encrypt[ing] wireless packet-switched cellular and/or Internet communications using a key-pair scheme, doing so would have been obvious." Pet. 48 (citing Ex. 1006 ¶ 289). According to Petitioner:

> In 2002, SSL and RSA were commonly used in electronic communications to encrypt messages, and RSA Data Security, Inc. was a well-known provider of RSA encryption software. [Ex. 1005 ¶ 289]. In view of Kloba's disclosure that the server communicates with user devices using SSL and uses an "RSA Encryption Engine" and "encryption software" by RSA Security, Inc. and that provides "security" and mobile devices that can "connect securely" to the server, it would have been obvious to PHOSITAs that wireless packet-switched cellular and/or Internet communications between Kloba's server and mobile devices could have been encrypted according to SSL and the RSA key-pair encryption algorithm. *Id.* Furthermore, because key-pair encryption schemes were commonplace by 2002, PHOSITAs would have had more than a reasonable expectation of success in adding key-pair encrypted communications to Kloba's system. *Id.*

Pet. 49.

According to Patent Owner,

> none of the Kloba passages cited by Petitioner teach or suggest the use of key pair encryption to secure such "wireless packet switched data message communications" as the claim language requires. *See* (Pet. 45–48) (citing EX1006 7:57–67, 34:65, 35:48–49, 36:45–46, FIGS. 28, 30, 65 34). Accordingly, Petitioner is left to rely only upon [Dr.] Kesidis' conclusory and unsupported assertion that it would have been obvious to POSITA to use SSL/RSA to encrypt Kloba's alleged wireless packet switched data message communications. (Pet. 49; EX1005 ¶[]289). This naked assertion provides no credible explanation for why this would be true, no evidence that it was actually being done prior to the invention of the '477 patent, and no proof of how or why it would have been technically feasible. An expert's conclusory and unsupported assertions are legally insufficient to prove obviousness. *TQ Delta*, 942 F.3d at 1359, 1361.

PO Resp. 64–65 (citing *TQ Delta, LLC, v. Cisco Sys*., 942 F.3d 1352, 1359, 1361 (Fed. Cir. 2019)).

Contrary to Patent Owner's arguments, Petitioner's showing is persuasive and supported by the record. Petitioner generally shows that it would have been obvious in view of Kloba's express disclosures of SSL and RSA to encrypt all manner of communications, including wireless packet-switched messages over a cellular network or the Internet, in order to provide communications security using a well-known key pair encryption scheme. *See* Pet. 48–49. As Petitioner shows, Kloba, filed in April 2000 and issued in 2002, supports Petitioner and Dr. Kesidis as showing the common use of SSL/RSA to securely encrypt well-known networks,

including wireless packet switching and the Internet at least by early 2002. *See* Ex. 1006, codes (22), (55).[26]

Kloba and record evidence show that artisans of ordinary skill would have had a reasonable expectation of success and been motivated to employ "key-pair encryption" via well-known SSL/RSA techniques to securely encrypt well-known networks including the Internet and cellular wireless packet-switched networks. *See* Ex. 1005 ¶ 289 (citing Ex. 1006, Figs. 28, 30, 34; App'x S; App'x T). Dr. Kesidis relies on Kloba's express teachings and the background knowledge of artisans of ordinary skill prior to the invention (*see supra* note 26), citing to documentary evidence (e.g., textbook Chapter 7.2, Principles of Cryptography, Ex. 1005, 657, 669, App'x S) that shows that skilled artisans would have known how to implement RSA and other algorithms using dual encryption keys (public and private). *See* Ex. 1005 ¶ 289 (testifying that "[b]y 2002, RSA was so widely used that it had 'become almost synonymous with public key cryptography'" (quoting Ex. 1005, 669 (App'x S, 493)) and "RSA Data Security, Inc., meanwhile, was a well-known provider of RSA encryption software that was founded by the inventors of RSA." (citing App'x T)); Ex. 1005, 687 (App'x T) ("MIT was granted U.S. Patent 4,405,829 . . . for a 'Cryptographic communications system and method' that used the algorithm, on September 20, 1983. Though the patent was going to expire on September 21, 2000 . . . the

[26] The earliest possible effective filing date of the '477 patent is May 21, 2003. *See* Ex. 1001, code (63).

algorithm was released to the public domain by RSA Security on September 6, 2000, two weeks earlier.").[27]

Based on the foregoing discussion, Petitioner shows by a preponderance of evidence that claims 2–6 would have been obvious over Kloba and Multer.

G. Alleged Obviousness Based on Kloba, Multer, and Loughran

1. Independent Claim 20

Petitioner asserts that the combination of Kloba, Multer, and Loughran renders obvious the subject matter of independent claim 20. Pet. 56–60. Independent claim 20 includes limitations materially similar to limitations in independent claim 1. *See id.* at 60 (mapping similar claims elements of claim 20 to those in claim 1 and claim 7). Petitioner primarily adds the teachings of Loughran for its wireless cellular phone teachings. *See id.* at 58. Petitioner supports its showing with citations to the record, the testimony of Dr. Kesidis, and citations to the '1892 FWD. *Id.* 58–59 (citing Ex. 1005 ¶¶ 319–322, 328–343; Ex. 1006; Ex. 1007; Ex. 1008; '1892 FWD 64). Patent Owner argues claims 1 and 20 together. *See* PO Resp. 1–55.

For the similar reasons as those discussed in connection with claim 1, including a finding of collateral estoppel with respect to most of the claim limitations, and further considering the teachings of Loughran as advanced by Petitioner, Petitioner shows that the combination of Kloba, Multer, and Loughran renders obvious the subject matter of claim 20. *See id.* at 56–60. Patent Owner argues claims 1 and 20 together. *See* PO Resp. 22–55.

[27] Citations refer to both the page numbers of Ex. 1005 for App'x S and App'x T, and to the original page numbers of the textbook (App'x S).

Based on the foregoing discussion, including the discussion of claim 1, and the determination of collateral estoppel with respect to the materially similar limitations of claim 20 as compared to claim 1, Petitioner shows by a preponderance of evidence that claim 20 would have been obvious over Kloba, Multer, and Loughran.

2. Dependent Claims 7, 14, 16, 17, 19, and 21–25

Petitioner asserts that the combination of Kloba, Multer, and Loughran renders obvious the subject matter of dependent claims 7, 14, 16, 17, 19, and 21–25, which ultimately depend respectively from claims 1 and 20. Pet. 49–55, 60–62. Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis. *Id.* (citing Ex. 1005). Petitioner also cites the '1892 FWD in addressing claims 7 and 16. *Id.* at 49–51, 53, 54 (citing '1892 FWD 55–56, 63). We adopt and incorporate by reference the cited portions of the '1892 FWD.

Patent Owner groups claims 4 and 22 together. PO Resp. 56–59. Patent Owner groups claims 5, 10, 14, 17, 23, and 25 together. *Id.* at 59–60. Patent Owner groups claims 6 and 24 together. *Id.* at 64–65. Patent Owner does not address claims 7 and 21 separately from its arguments that address claims 1, 6, and 20. *See id.* at 65 n.18. Based on our determination above, Petitioner establishes the obviousness of claims 1, 4–6, and 20 by a preponderance of evidence. Accordingly, based on the materially same reasons and findings with respect to claims 1, 4–6, and 20 above, Petitioner shows the obviousness of claims 7, 10, 14, 17, and 21–25 by a preponderance of evidence.

Patent Owner groups claims 16 and 19 together. PO Resp. 60–61. These claims require that management instructions sent to a consumer

device asset include "a unique identifier of the particular receiving consumer device asset" and that "said unique identifier comprises in whole or in part an identification code specific to that receiving consumer device asset."

In summary, Petitioner contends that Kloba's teaching of a server sending messages to mobile devices using TCP/IP teaches the sending of the claimed unique identifier. Pet. 54 (Ex. 1005 ¶ 305).

Patent Owner responds that "Petitioner's argument is simply false." PO Resp. 61 (citing Ex. 2029 ¶¶ 112–114). Patent Owner contends that a "POSITA would understand the mobile devices of Kloba were typically wirelessly connected to the Internet through a wireless router, in which case the server would communicate directly with the wireless router and the wireless router would then, in turn, communicate with each of the mobile devices." *Id.* (citing Ex. 2029 ¶ 113; Ex. 2028, 115:23–116:22, 117:10–14). "Therefore," according to Patent Owner, "the IP address the server would include in the communications would be the public IP address of the wireless router, NOT an IP address belonging to a mobile device wirelessly connected to the wireless router." *Id.* (citing Ex. 2029 ¶ 113; Ex. 2028, 115:23–116:22, 117:10–14).

Quoting Dr. Kesidis's deposition testimony, Patent Owner further contends that Dr. Kesidis admits that

> when the server is sending a message "[i]t's sending a message actually to the wireless router, and what's in that -- the way that message is addressed, it goes -- the destination IP address of the message is the wireless router's destination IP address[]. . . [.]" (Ex. 2028[,] 162:22–163:4; *see also* 154:6–16). Next, [Dr.] Kesidis admitted that when the router forwards the message to the mobile device, it "swaps out" its own IP address and inserts the IP address of the mobile device. (*Id*. at 163:12–24).

PO Resp. 62.

Under Patent Owner's view, even if the wireless router (which includes a public address for itself further shared by all the mobile devices connected thereto) assigns individual private IP addresses, the claimed server does not. *See* PO Resp. 62. "Accordingly, given that the Petitioner's only alleged 'unique identifiers' are the IP addresses of Kloba's mobile devices, Petitioner has failed to prove dependent claims 9/16/19/27/28 are obvious." *Id.* at 62–63.

Petitioner replies that Kloba discloses connections without using routers in several embodiments. In particular, Petitioner provides evidence that Kloba's Figure 1V, Figure 30, and Figure 36 portray direct access between mobile devices and a server over the internet (using IP/HTTP for example in Figure 30) without using a router. Reply 26–28. Petitioner also shows that Mr. Berg admits that "devices *can* directly connect to a server through the Internet." *Id.* at 26 (citing Ex. 1021, 147:13–20. And Petitioner also shows that Mr. Berg "also concede[s] that Kloba does not disclose using routers." *Id.* (citing Ex. 1021, 156:16–20). In other words, a reading of Mr. Berg's cited deposition testimony and testimony surrounding it shows that Petitioner fairly and accurately characterizes it.

In its Sur-reply, Patent Owner does not directly address Petitioner's showing and evidence that Kloba employs a direct connection between a server and mobile devices that involve a unique IP address sent by the server. Sur-reply 25–26. Patent Owner also does not address Petitioner's reliance on and characterization of Mr. Berg's deposition testimony. Instead, Patent Owner simply contends that Petitioner "does not dispute that Kloba's server sends no unique identifier for a particular device *when that device is connected to a router*." *Id.* at 25 (emphasis added). According to

Patent Owner, Petitioner "admits that the unique identifier for a particular device is *only sometimes* sent by the server [(i.e., in the absence of a router). Petitioner's] inherency argument therefore fails as a matter of law." *See id.* at 25–26.

Based on the above discussion, Petitioner shows that Kloba teaches the disputed limitations of claims 16 and 19. As discussed above, Kloba discloses implementing networks without connecting mobile devices to a router. Patent Owner and Mr. Berg do not dispute this showing by Petitioner. Therefore, based on Petitioner's undisputed showing, Kloba discloses a unique IP address sent by the claimed server that satisfies the "unique identifier" limitation at dispute in claims 16 and 19. Contrary to Patent Owner's arguments, inherency is not at issue here.

Based on the foregoing discussion, Petitioner shows by a preponderance of evidence that claims 7, 14, 16, 17, 19, and 21–25 would have been obvious over Kloba, Multer, and Loughran.

H. Alleged Obviousness Based on Kloba, Multer, Loughran, and Fong, Dependent Claims 8–12, 15, 18, and 26–30

Petitioner contends that claims 8–12, 15, 18, and 26–30, which ultimately depend respectively from claims 1 and 20, would have been obvious over Kloba, Multer, Loughran, and Fong. Pet. 62–67. Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis. *Id.* (citing Ex. 1005). Petitioner also cites the '1892 FWD in addressing claims 8, 11, 12. *Id.* at 62, 64, 65 (citing '1892 FWD 56, 62, 70–71). We adopt and incorporate by reference the cited portions of the '1892 FWD. Patent Owner does not address claims 8–12, 15, 18, and 26–30

separately from its arguments that address claims 1, 4–6, 16, 19, and 20. *See* PO Resp. 65 n.18.[28]

Based on the foregoing discussion, Petitioner shows by a preponderance of evidence that claims 8–12, 15, 18, and 26–30 would have been obvious over Kloba, Multer, Loughran, and Fong.

I. Alleged Obviousness Based on Kloba, Multer, Loughran, Fong, and Chow, Dependent Claim 13

Claim 13 depends from claims 1/2/3/4/5/6/7/8/9/10/11/12. Petitioner contends that claim 13 would have been obvious over Kloba, Multer, Loughran, Fong, and Chow. Pet. 67–68. Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis. *Id.* (citing Ex. 1005 ¶ 395). Petitioner also cites the '1892 FWD to support its showing. *Id.* at 67 (citing '1892 FWD 69). We adopt and incorporate by reference the cited page of the '1892 FWD. Patent Owner does not address claim 13 separately from its arguments that address claims 1 and 4–6. *See* PO Resp. 65 n.18.

Based on the foregoing discussion of claims 1 and 4–6, and a review of the record, Petitioner shows by a preponderance of evidence that claim 13 would have been obvious over Kloba, Multer, Loughran, Fong, and Chow.

III. CONCLUSION

The outcome for the challenged claims of this Final Written Decision follows.[29] In summary:

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[28] As noted above, for example, Patent Owner groups claims 9, 16, 19, 27, and 28 together in its arguments. *See* PO Resp. 60–64; PO Sur-reply 25–26.

[29] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice

Claims	35 U.S.C. §	References/ Basis	Claims Shown Unpatent-able	Claims Not shown Unpatent-able
1–6	103(a)	Kloba, Multer	1–6	
7, 14, 16, 17, 19–25	103(a)	Kloba, Multer, Loughran	7, 14, 16, 17, 19–25	
8–12, 15, 18, 26–30		Kloba, Multer, Loughran, Fong	8–12, 15, 18, 26–30	
13		Kloba, Multer, Loughran, Fong, Chow	13	
Overall Outcome			1–30	

Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–30 of the '477 patent are unpatentable; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Paper 50
Entered: September 7 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC.,
Petitioner,

v.

M2M SOLUTIONS LLC,
Patent Owner.

Case IPR2019-01204
Patent 9,961,477 B2

Before KARL D. EASTHOM, DAVID C. MCKONE, and FREDERICK C. LANEY, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing of Final Written Decision
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Patent Owner, M2M Solutions LLC, filed a Request for Rehearing (Paper 45, "Reh'g Req." or "Rehearing Request") asserting that the Final Written Decision (Paper 43, "FWD") lacks "evidence," is "conclusory," "violat[es] statutory obligations," "badly misunderst[ands] and conflate[s] the separate and distinct legal doctrines of 'claim preclusion' and 'issue preclusion'," and "mint[s] a novel legal theory." Reh'g Req. 2, 12–15. Petitioner, Amazon.com, Inc., filed a Response to the Rehearing Request ("Pet. Resp. Reh'g Req.," Paper 46) and Patent Owner filed a Reply ("PO Reply Reh'g Req.," Paper 47). *See* Ex. 1027 (Board's email authorizing the Response to the Rehearing Request); Ex. 2032 (Board's email authorizing the Response to the Rehearing Request).[1]

The Final Written Decision determines that Petitioner persuasively showed during trial that claims 1–30 (the "challenged claims") of U.S. Patent No. 9,961,477 B2 (Ex. 1001, the "'477 patent") are unpatentable. Before the Final Written Decision issued, the Federal Circuit affirmed at least one final written decision in which the Board invalidated materially similar claims to the claims at issue here. *See M2M Solutions LLC v. Amazon.com, Inc.*, 825 F. App'x 893 (Fed. Cir. 2020) (Fed. Cir. R. 36)

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[1] Other Papers of note follow: Papers 11 and 13 (briefing by parties addressing collateral estoppel prior to the Institution Decision (Paper 14)); Paper 2 ("Petition" or "Pet."); Paper 22 (Patent Owner "Response" or "PO Resp."); Paper 25 (Petitioner "Reply"); Paper 31 (Patent Owner "Sur-reply"); Paper 37 (Order authorizing additional briefing on collateral estoppel); Paper 38 ("PO Supp. Br." addressing collateral estoppel); Paper 39 ("Pet. Supp. Br." addressing same); Paper 41 ("PO Supp. Reply Br." addressing same); Paper 42 ("Pet. Supp. Reply Br." addressing same); *see* FWD 2 & nn.1–2 (describing Papers authorized and filed).

(nonprecedential) (the "M2M Federal Circuit Decision") (affirming *Amazon.com, Inc. v. M2M Solutions LLC*, IPR2017-01892, Paper 32 (PTAB Feb. 7, 2019) (final written decision) (the "'1892 FWD" or the "'1892 IPR")).[2] The '477 patent challenged here and the patent challenged in the '1892 IPR, U.S. Patent No. 8,577,358 B2 (the "'358 patent"), share a common specification and materially similar claims.

The applicable standard for a rehearing request is set forth in 37 C.F.R. § 42.71(d), which provides the following:

> A party dissatisfied with a decision may file a request for rehearing, without prior authorization from the Board. The burden of showing a decision should be modified lies with the party challenging the decision. The request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, opposition, or a reply.

For the reasons provided below, we *deny* Patent Owner's request to modify the Final Written Decision in the manner argued by Patent Owner.

II. ANALYSIS

Urging the Board to deny institution in the instant case, Patent Owner initially characterized the Petition as "asking the Board *to repeat the entire prior trial, analysis and opinion*" culminating in the '1892 FWD affirmed in the M2M Federal Circuit Decision under Fed. Cir. R. 36 ("Rule 36"). *See* Paper 7 ("Prelim. Resp.") 31 (emphasis added); FWD 10 (quoting Prelim. Resp. 31); FWD 9–13 (describing the collateral estoppel background involving the '1892 FWD and the M2M Federal Circuit Decision and noting

[2] The M2M Federal Circuit Decision affirmed three related Board final written decisions, but this trial focuses on the '1892 IPR's relationship to the instant trial in terms of collateral estoppel principles.

that even though "the Board agreed prior to institution that a Federal Circuit decision probably would serve as a basis for collateral estoppel at some point in this *inter partes* trial . . . . Patent Owner now argues, for various reasons, that collateral estoppel does not apply."). In addition to asserting that collateral estoppel does not apply to materially the same claim limitations as involved in the '1892 IPR that the court affirmed in the M2M Federal Circuit Decision, Patent Owner advances other arguments, as addressed below.

A. Claims 10, 14, 17, and 25

Patent Owner asserts that the Board's analysis of claims 10, 14, 17, and 25 in the Final Written Decision is conclusory. Patent Owner explains that "[c]laims 10/14/17/25 of the '477 patent each contain a contested limitation requiring 'one or more management instructions generated by the . . . server . . . based upon the results of having processed at least some of the consumer preference information.'" Reh'g Req. 1. Then, Patent Owner asserts that the Board's "bare citation to its prior analyses of claims 1, 4–6, and 20 does *not* clearly explain nor factually support its finding that Kloba[3] ostensibly satisfies the key contested limitation of claims 10/14/17/25 -- *i.e.*, 'management instructions' generated based on the processing of 'consumer preference information.'" *Id.* at 3. Patent Owner also argues that "the Board's analyses" of independent claims 1 and 20 "do[es] not even address or implicate 'consumer preference information' at all, much less the specific

[3] Kloba et al., US 6,421,717 B1, issued July 16, 2002 (Ex. 1006).

requirement of 'management instructions' generated by the server's processing thereof." *Id.* at 3.

Patent Owner also argues regarding claim 5 that the Board "has neglected to provide its own substantive analysis or any reasoned explanation for adopting Petitioner's analysis." Reh'g Req. 3. Patent Owner also argues regarding claim 6 that the Board's "analysis [] is completely irrelevant to assessing limitations pertaining to 'consumer preference information' or to any related 'management instructions.'" *Id.* (citing FWD 103–08).

Petitioner responds that the Board permissibly relied on its analysis of materially similar language in claim 4 to address the "contested limitation" (Reh'g Req. 1) in claims 10, 14, 17, and 25. *See* Pet. Resp. Reh'g Req. 11–13. Petitioner provides the following chart to illustrate that "[t]he relevant language of claims 10, 14, 17, and 25 is materially similar to language recited by claim 4, as the color-coding illustrates." *Id.* at 11.

Claim 14 (representative)	Claim 4
wherein said **further communications** comprise … one or more **management instructions generated by the remote server platform based upon the results of having processed at least some of the consumer preference information**	the **remote computer server platform further manages** the plurality of consumer device assets, **based upon the results of having processed at least some of the consumer preference information**, by **sending … communications** containing one or more additional **management instructions**

The chart above persuasively illustrates that claims 4 and 14 include materially similar language. Petitioner explains as follows:

> In evaluating claim 4, the Board found that Kloba disclosed "further manag[ing] the plurality of consumer device assets, based upon the results of having processed at least some of the consumer preference information, by sending . . .

> communications," because "at a future synchronization and based on a previous client request during a previous synchronization, Kloba's server sen[t] channel or object information *related to the previously requested* consumer usage information (object or channel) from a previous synchronization." FWD 102 (citing Pet. 43–44 (citing Kesidis ¶¶ 266–268; Kloba, 8:16–17, 10:15–24)) (emphasis added). The Board found that such "previously requested" objects or channels were examples of "consumer preference information." FWD 101 (citing Pet. 43–44); *id*. 98 (citing Pet. 43–44 ("information about objects requested in advance or the user's preferred channels" are examples of "consumer preference information"). The Board further found, based on Petitioner's showing for claim 1[f], that the "further" communications from Kloba's server "contain[ed] one or more additional management instructions." Specifically, "[Kloba's] Figure 1X and the discussion at columns 20–21 teach that Kloba's server sends such requested information with instructions during a synchronization request." *Id*. 103 (citing analysis of 1[f]); *id*. 98 (citing Pet. 43–44 ("As discussed above for Element 1[f], during synchronization the server sends 'instructions' that cause devices to store or update objects and channels. Kloba, 20:13–17.")).

Pet. Resp. Reh'g Req. 12.

In reply, Patent Owner asserts that Petitioner's explanation rests on *communications* that Kloba's server sends, instead of "management instructions." PO Reply Reh'g Req. 1. And Patent Owner contends that Petitioner's explanation unhelpfully focuses on "'consumer usage information' in the claim 4 analysis, the examples of which asserted in the Petition are completely different from and unrelated to the recited 'consumer preference information' needed to satisfy claims 10/14/17/25." *Id.* at 1–2.

Contrary to Patent Owner's Rehearing arguments, Petitioner specifically and persuasively refers to Kloba's synchronizations as management instructions based on consumer preference information in the

block quote above, and in its briefing that the Final Written Decision determines is persuasive as quoted above. *See* FWD 98–103 (citing Pet. 43–44 and addressing "consumer preference information"); Pet. 43 (persuasively addressing claim 4 in terms of Kloba's multiple synchronizations and persuasively showing that "[a]s discussed above for Element 1[f], during synchronization the server sends 'instructions' that cause devices to store or update objects and channels," and "[t]he server sends these instructions based upon the results of having processed the information about objects requested in advance or the user's preferred channels (*i.e.*, 'consumer preference information')"), 44–45 (persuasively noting that claim 5 recites "*either* the 'consumer usage information' recited in Element 1[f] *or* the 'consumer preference information' recited in claims 3–4" and showing persuasively that with respect to prior versions of objects on a consumer asset, "the object sent by the server is an update to an existing stored display data content file").

Further regarding Patent Owner's argument that Petitioner relies on "communications" instead of "management instructions" (*see* PO Reply Reh'g Req. 1), claim 4 specifically recites that the "communications contain[] . . . additional management instructions," and Petitioner simply employs "communications" as short-hand for the claim phrase (Pet. Resp. Reh'g Req. 12). Also, Patent Owner's Response specifically includes "communicated data" and "data message[s]" (as disclosed in the '477 patent's "Summary of Invention" and elsewhere) as within the scope of the claimed "management instructions" (PO Resp. 10 & n.5).

Further, Patent Owner's arguments fail to address the Board's finding, cited by Petitioner in the above block quotation (Pet. Resp. Reh'g Req. 12),

that Kloba's "Figure 1X and the discussion at columns 20–21 teach that Kloba's server sends such requested information *with instructions during a synchronization request*." Pet. Resp. Reh'g Req. 12 (citing FWD 103) (emphasis added). And the Final Written Decision states that "Patent Owner does not challenge" "the specific consumer usage information advanced by Petitioner," where "Patent Owner essentially characterizes it without pointing to any deficiency." FWD 101.

The Final Written Decision also agrees with, and characterizes, Petitioner's showing as relying on "at least some future synchronizations with respect to *consumer preference information* in Kloba[, which] pertain[] to existing files and hence delta instructions." FWD 101 (emphasis added). The Final Written Decision further explains that "Petitioner persuasively relies on deltas instructions here to be sent with similar channels 'at some other future synchronization,'" and "Petitioner persuasively relies on instructions disclosed in Kloba 'that cause devices to store or update objects and channels' with respect to newly requested objects." *Id.* at 102.[4]

In other words, contrary to Patent Owner's arguments, the Final Written Decision includes detailed findings regarding claim 4's "management instructions" and "consumer preference information." *See* FWD 98–103. These findings apply to the materially similar limitations in claims 10, 14, 17, and 25. *See* FWD 109–13.

In addition to these specific findings, the Final Written Decision also notes that Patent Owner specifically relies on its arguments with respect to

[4] Kloba refers to the singular term "delta" and its plural form "deltas." Ex. 1004, 19:51–67.

claim 1's "consumer usage information" to address the similar management instruction limitation pertaining to "consumer preference information" as recited in claim 4. *See* FWD 99–101 (citing PO Resp. 56–59). That is, Patent Owner's Response signifies that some overlap exists in the analysis of "management instructions" and the claimed "consumer usage information" as recited in claim 1, "the consumer preference information" as recited in dependent claim 4, and "the consumer usage information or consumer preference information" as recited in claim 5. *See* PO Resp. 57 ("Indeed, the 'management instructions' limitations of Claims 4/22 *have the same linguistic structure as those recited in claim elements* 1[f]/20[g], *merely swapping 'consumer preference information' in place of 'consumer usage information.*'") (emphasis added).

Dependent claims 3 and 4 (which ultimately depend from claim 1) support Patent Owner's characterization regarding the "same linguistic structure" for management instructions and the two types of consumer information. *See* PO Resp. 57. Claim 3 recites "wherein the remote computer server platform stores information indicative of preferences that one or more individual consumer users . . . have for particular display data content files." Claim 4 depends from claim 3 and recites "*the* consumer preference information," apparently referring to the antecedent "preferences" of the "consumer users" as introduced in claim 3. Tracking the language of claim 1, claim 4 recites a "further manages" recitation with respect to the "consumer preference information." Therefore, the claims do not preclude reading the recited "consumer preference information" as related to, and in some cases overlapping with, the recited "consumer usage information," so that, in any event, managing assets based on both types of

information involves the same type of managing, as Patent Owner notes. *See* PO Resp. 57 (noting "the same linguistic structure" and using the "same reasoning" to address "management instructions" of "consumer usage information" and "consumer preference information").

Therefore, in addition to not addressing the Board's finding and Petitioner's particular showing regarding "consumer preference information," Patent Owner's argument that "the Board's analyses [] does not even address or implicate 'consumer preference information' at all, much less the specific requirement of 'management instructions' generated by the server's processing thereof," and similar arguments, fail to show that "the Board misapprehended or overlooked" a "matter." *See* Reh'g. Req. 3; 37 C.F.R. § 42.71(d). In summary, Petitioner persuasively relies on Kloba's teachings regarding objects and channels, synchronization and future synchronizations, as applicable to Kloba's Figures 12 and 17 and other examples, its related showing with respect to synchronization instructions and limitation 1[f], and specific future synchronizations with respect to claims 4, 5, and other claims dependent therefrom, to show that Kloba's synchronization instructions cause updates of files for channels or objects, which include consumer usage information and consumer preference information. *See, e.g.*, Pet. 42–45 (citing Ex. 1006, 4:59–63, 5:29–32, 8:16–17, 10:12–17, 20–24; '1892 FWD 57–59; Ex. 1005 ¶¶ 266–268); Ex. 1005 ¶¶ 266–268.[5]

[5] Also, addressing independent claim 1, Petitioner persuasively relies on "information related to 'preferences' . . . set by the user on the device" as shown in Kloba's Figure 17. *See, e.g.*, FWD 56 (citing Pet. 32–33).

The Final Written Decision also addresses and dismisses Patent Owner's Response argument, repackaged here in the Rehearing Request, that characterizes Petitioner's showing as improperly conflating Kloba's management instructions as synchronization descriptions for storing new files, where according to Patent Owner, Kloba only teaches "*updating* instructions used only for modifying existing files already residing on mobile devices" instead of "*downloading* instructions used for storing new data files." *See* Reh'g Req. 4–5 (citing Ex. 1005 ¶ 266; PO Resp. 46–49, 50); FWD 56–58, 68–96, 98–103. This line of argument does not address the Board's findings or Petitioner's showing.

For example, addressing a similar argument and discussing limitation 1[f] and Petitioner's showing thereof (which Petitioner refers to in part in analyzing claim 4 (*see* FWD 98)), the Final Written Decision finds that "Petitioner relies on Kloba's server providing 'synchronization instructions and objects' after receiving '*delta*' *information about existing objects and channel/preference selections*." FWD 69 (citing Reply 18; Ex. 1006, 19:51–20:13, 20:50–53, Figs. 1I1 and 1X & n.14). The Final Written Decision quotes Kloba to describe the defined properties of a channel that Kloba employs to synchronize or update existing channel(s) or objects by communicating *changes* in channel properties: "According to Kloba, '[a] channel includes a number of properties," including, '[a] name of the channel,' '[a] location of a root object (such as not limited to a URL),' '[a] maximum size of a channel,' 'an indication of which resource objects are enabled,' '[a]n indication of whether or not images are to be included in or excluded from objects in the channel.'" *Id.* at n.14 (quoting Ex. 1006, 7:27–32). The Final Written Decision finds that "as Petitioner shows, Kloba

discloses or at least suggests that selecting a new channel with a delta simply involves providing a change (delta) to one or more of *these properties* relative to an existing channel on the device." *Id.* at 73–74 (citing Ex. 1006, 7:27–32 (describing channels as any content, including a "collection of objects," including "applications," "services," or "links, etc.") (emphasis added), Ex. 1006, 19:54–59 (defining deltas under "one embodiment" as a "set of differences" applicable to any "content" or "object" version, including "applications" or "services"). Similarly, the Final Written Decision finds that "Kloba expressly discloses sending 'information and instructions' or 'desired information *along with* new synchronization changes,' *even when a user requests new information or objects* (e.g., CHANGES, *see* Fig. 1X), as Petitioner shows." FWD 74 (citing Pet. 33–39; quoting Ex. 1006, 20:54–55, 21:1–2) (emphasis added).

Patent Owner's sole argument prior to the Rehearing Request for "claims 10/14/17/25" is a mere denial—i.e., Patent Owner alleges that the "management instructions" analysis of claim 4 "fails because Patent Owner has demonstrated *Kloba's 'deltas' instructions are not based upon the server's processing* of Petitioner's ostensible 'consumer preference information'." PO Resp. 60 (emphasis added) (citing PO Resp. 45–55, 57–59). Immediately above this argument, on pages 59–60 of the Response, in addressing claim 5 and grouping claims 5, 10, 14, 17, and 25 together under a section heading, Patent Owner argues that "Patent Owner has previously shown, such reliance must fail because *Kloba's 'deltas' instructions are in no sense based upon the server's processing* of Petitioner's alleged FIGS. 12/17 examples of 'consumer usage information'." *Id.* at 59–60 (emphasis added) (section heading: "**Petitioner Fails To Prove Kloba Satisfies**

Dependent Claims 5, 10, 14, 17, 23 and 25"). So Patent Owner's arguments about "claims 10/14/17/25" and "consumer usage information" mimic the same argument Patent Owner advances for claim 5 and "consumer usage information," especially where Patent Owner specifically points the Board to its arguments at pages 45–55 and 57–59 of the Response——arguments which address "consumer usage information" as recited in claim 1 and other arguments which relate those arguments to "consumer preference information" as recited in claim 4—e.g., "based on the same reasoning previously discussed above" in connection with claim 1. *See* PO Resp. 57; *see also id.* at 45–55, 57–59.

Patent Owner's original line of argument, which Patent Owner applies to both types of consumer information, appears to turn on the narrow claim construction of "management instructions" and Patent Owner's unsupported "uploading" versus "downloading" distinction in Kloba as quoted above and addressed at length in the Final Written Decision. *See* PO Resp. 56–60; FWD 98–103 (discussing how Kloba's successive synchronizations satisfy the claim 4 limitation "manages . . . consumer device assets, *based upon the results of having processed at least some of the consumer preference information . . . by sending one or more additional management instructions* that cause the stored display data content files for one or more assets to be automatically modified") (emphasis added), 112–13 (noting, for example, that "Patent Owner does not address claims 8–12, 15, 18, and 26–30 separately from its arguments that address claims 1, 4–6, 16, 19, and 20") (citing PO Resp. 65 n.18).

In other words, the Final Written Decision determines that Petitioner persuasively shows that Kloba teaches the narrow claim construction of

"management instructions" in connection with claim 1 and applies that determination to both types of consumer information, both types of which Patent Owner itself treats similarly. *See, e.g.*, FWD 35 ("As discussed further below, Petitioner shows that Kloba's management instructions satisfies Patent Owner's narrow construction and also Petitioner's broader construction."), 87–88 (finding Kloba satisfies the narrow claim construction of "management instructions"), 98–103 (addressing claim 4), 109–13 (addressing other dependent claims).

Patent Owner also argues that "the Board's citation to an analysis from the [']1892 FWD premised on the finding that 'management instructions' need *not* be based on the processing of 'consumer preference information' is inapposite here where claims 10/14/17/25 expressly require precisely the contrary." Reh'g Req. 7 (citing FWD 103; '1892 FWD 59). Again, this is simply the same type of denial argument based on the narrow claim construction argument regarding "management instructions" addressed in the Final Written Decision at length.

Also, at the page cited by Patent Owner (Reh'g Req. 7 (citing FWD 103)) as evidencing an improper reliance on the '1892 FWD, the Final Written Decision only adopts these particular '1892 FWD findings to the extent that the "broad claim construction of limitation 1[f]" applies. *See* FWD 103. Regarding this broad claim construction, Patent Owner's arguments fail to address the Board's rationale that claim 5 supports it. *See id.* at 32–33. In particular, claim 5 reveals that "the 'that are based upon the results' language refers back to 'the automatic modifications,' based on the parallel structure of 'are comprised of' and 'are based upon' language—i.e.,

both phrases refer to the same thing, 'the automatic modifications'"—not the management instructions. FWD 32–33; *see id.* at 31–35.

Patent Owner also cites page 42 of the Petition in addressing "consumer preference information." Reh'g Req. 4 (citing Pet. 42). But that cited page addresses claim 3 (which provides antecedent basis for "consumer preference information" as discussed above). Patent Owner did not challenge claim 3 prior to its Rehearing Request as noted in the Final Written Decision. *See* FWD 97–98. In any event, the Petition addresses the antecedent to consumer preference information introduced in claim 3, and it quotes Kloba as stating, for example, that "a channel *comprises a collection of objects*." Pet. 42 (quoting Ex. 1006, 7:28–29) (emphasis added); *see also* FWD 73–74 (similar finding); *see also* FWD 68–96 (discussing Kloba's synchronization teachings at length). The cited Petition page also describes objects requested from the server as consumer preference information, including "when an event happens, such as when a stock reaches a target price." *See* Pet. 42 (quoting Ex. 1006, 10:7–10). Dr. Kesidas explains that "Kloba's 'objects' are 'particular display data content files,' and data related to the user's request for those objects are 'indicative of preferences' that the user has for them." Ex. 1005 ¶ 260. Dr. Kesidas also relies on a list of channels maintained by a server as indicative of consumer preferences. *See id.* ¶ 262. Therefore, Petitioner's persuasive claim 3 showing provides further support with respect to claims 4 and 5 (which ultimately depend from claim 3) that Kloba's channels include objects (which involve display content files) that Kloba's server synchronizes based on a particular channel's attributes per user requests (in advance or otherwise) including by providing updates to the existing channels/objects.

Further regarding "consumer preference information," Patent Owner also asserts in its Rehearing Request that

> the lone Kloba passage at 10:15–24 cited by the Board is indisputably *not* describing the server processing alleged "consumer preference information" as a predicate for modifying "existing files" stored on a mobile device, but rather as a predicate for selecting new "objects" (*i.e.*, new display data content files) for downloading to the mobile device that are components of a new and different channel not yet stored on that mobile device which the server has determined to be "similar" to a user's historically preferred channels.

Reh'g Req. 6. Contrary to this argument, however, as explained above and at length in the Final Written Decision, Kloba's system updates existing files by exploiting changes in similar channel or object information relative to such information existing on the consumer asset. *See* FWD 67–93 (addressing how Kloba satisfies the narrow claim construction of "management instructions"). The Final Written Decision also adopts similar findings in the '1892 FWD as to how Kloba's system operates in terms of synchronization changes to new or existing files or objects (with the '1892 FWD not specifically reaching the narrow claim construction of management instructions at issue here), including with respect to consumer preference information as Petitioner notes with respect to claims 3–5. *See* Pet. 42, 44; FWD 97–98 (citing Ex. 1021 (claim chart showing materially similar limitations involved in the '1892 FWD); adopting findings at '1892 FWD 57–59 addressing "user preference information" including based on Kloba's examples of stock price and channel list information as objects or files), 103 (adopting findings at '1892 FWD 57–59).

Patent Owner concedes that Kloba's "'deltas instructions . . . would be used to modify 'existing files' on a mobile device." *See* Reh'g Req. 6. Nevertheless, as the block quote above shows, Patent Owner contends that "Petitioner's two alleged examples of 'consumer preference information' clearly do not qualify as" "'deltas' information." *Id.* Contrary to the requirements of 37 C.F.R. § 42.71(d), Patent Owner does not inform the Board where it made this argument about the alleged "lone Kloba passage at 10:15–24" and the "two alleged examples" prior to the Rehearing Request. *See id.*; *see also* '1892 FWD 57–59 (described above, relating to two examples of user preference information). Patent Owner's argument appears to repackage Patent Owner's primary argument seeking to cabin Kloba as only synchronizing what Patent Owner refers to as updating instructions to modify existing files versus downloading instructions for storing new files even though Kloba makes no such distinction. *See, e.g.*, Reh'g Req. 5–6; FWD 70 ("Contrary to the thrust of Patent Owner's arguments, Kloba does not refer to a selection of a new channel or preference as distinct from using at least some delta information to facilitate the selection."). In any event, in dismissing this argument, the Final Written Decision does not rely on the sole passage of Kloba at column 10 and instead addresses Petitioner's showing and Patent Owner's arguments in analyzing Kloba's synchronization teachings, providing extensive findings based on the testimony of Dr. Kesidis and Kloba's columns 3–8, 10, 12, 19–21, 23, 24, 28, 34, and Figures 1H1, 1I1, 1X, 12, and 17, over multiple pages in addressing the claims, including claim 4, as indicated above. *See, e.g.*, FWD 65–103.

The Final Written Decision also finds that "Patent Owner groups claims 5, 10, 14, 17, 23, and 25 together." FWD 109 (citing PO Resp. 59); *see also* Pet. Resp. Reh'g Req. 13 (noting the same grouping); Sur-reply 24 (same grouping and relying on the "[s]imilar[]" argument regarding "management instructions that are based upon" processing "consumer usage information" for claims 5/23 and "consumer preference information" for claims "4/22" and "14, 17, 23, and 25"). In any event, contrary to Patent Owner's arguments regarding claims 5 and 6, the Final Written Decision specifically outlines what rationale it adopts as persuasive from the Petition and other briefing and record evidence (by citing thereto), including as follows:

> Claim 5 depends from claim 4, and claim 6 depends from claim 5. Tracking its showing with respect to claim 1, Petitioner *presents reasons supported by the record* to show that the proposed combination of Kloba and Multer teaches each of the additional limitations of dependent claims 5–6, and renders those claims obvious. Pet. 41–49. *Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis*. *Id.* (citing Ex. 1005). Petitioner also cites the '1892 FWD to support its showing *to the extent* claims 5 and 6 present similar limitations to those present in the '1892 FWD. *Id.* at 44–45 (citing '1892 FWD 55, 59). We adopt and incorporate by reference the cited portions of the '1892 FWD.

FWD 103 (emphasis added).[6] The Final Written Decision similarly addresses claim 6 and Patent Owner's arguments further over several pages,

[6] Patent Owner also argues that any added analysis that adopts limitations of challenged claim 5 here to the Board's analysis of claim 11 of the '358 patent in the '1892 IPR "miss[es] the mark" as being "completely irrelevant to assessing limitations pertaining to 'consumer preference information' or to any related 'management instructions.'" Reh'g Req. 3. However, as the

with specific citations to the record to highlight how the record supports Petitioner's persuasive showing. *See* FWD 103–08.

The Final Written Decision also notes that "Patent Owner relies *on the same arguments it presented with respect to claims 1 and 4* to address claim 5." FWD 103 (citing PO Resp. 59–60) (emphasis added). The Final Written Decision then states that "[f]or the reasons noted above with respect to claims 1 and 4, *and based on the record evidence and arguments*, *Petitioner's showing [with respect to claim 5] is persuasive*." *Id.* (emphasis added).

With respect to claims 4 and 5, Patent Owner's Response relies on the same argument it relies upon with respect to limitation 1[f], the argument mentioned above that "Kloba indisputably and admittedly teaches instead that its 'deltas' instructions are not *downloading* instructions used for storing new data files on mobile devices, but rather *updating* instructions for modifying existing files already residing on mobile devices." PO Resp. 59; *accord id.* at 59–60 (addressing claims 5, 10, 14, 17, 23 and 25 and referring back to its arguments with respect to limitation 1[f] and claim 4). Despite facially grouping claims 10, 14, 17, and 25 together on page 60 of the Response, as indicated above, Patent Owner's arguments effectively grouped claims 4, 5, 10, 14, 17, 23, and 25 together by arguing that Kloba

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block quotation immediately above shows, the Final Written Decision adopts and incorporates the limitations "*to the extent* claims 5 and 6 present similar limitations to those present in the '1892 FWD." Also, claim 5 (and claim 6 which depends therefrom), recites "consumer usage information *or* consumer preference information"—i.e., in the alternative, so that satisfying the latter alternative is not necessary to show the obviousness of claims 5 and 6.

does not teach the narrow claim construction of "management instructions." *See* PO Resp. 56–60 (presenting the materially similar argument for claims 4, 5, 10, 14, 17, 22, 23, and 25). In essence, Patent Owner's argument for all of these claims rests on its unsupported characterizations of Kloba and Petitioner's showing and reliance on Kloba, namely that Kloba's synchronizations allegedly only update existing files, but Petitioner allegedly and mistakenly relies on Kloba's downloading of new data files. *See* PO Resp. 56–60; Pet. Resp. Reh'g Req. 13 ("Noting that [Patent Owner] had grouped claims 10, 14, 17, and 25 together in the PO Response (along with additional dependent claims 5 and 23), the Board determined that Petitioner had established the obviousness of these claims 'based on the materially same reasons and findings [the Board made] with respect to claims 1, 4–6, and 20 above.'" (citing FWD 109)); PO Reply Reh'g Req. 1–2 (not disputing the grouping). To the extent differences exist in the claims, the Final Written Decision addresses those differences by citing to the Petition as persuasive and other briefing and addressing the arguments, as indicated above.

Contrary to Patent Owner's arguments that the Final Written Decision does not provide a clear showing as to its findings and rationale (*see* Reh'g Req. 1–2) with respect to certain dependent claims, as indicated above, the Final Written Decision relies on Petitioner's showing as to all claim limitations, citing to the Petition's persuasive showing, and including citations to Kloba, the analysis of claim 1, the '1892 FWD, the testimony of Dr. Kesidis, and other briefing. *See* FWD 97–108 (addressing claims 2–6, citing Pet. 41–49; Pet. Supp. Br. 1–2 & n.1; Ex. 1005, 8:16–17, 10:15–24, 20:13–17, columns 20–21 generally; '1892 FWD 55, 57–59; Reply 18, 21),

108–09 (addressing claim 20 with similar citations to the record), 109–12 (addressing claims 7, 14, 16, 17, 19, and 21–25 with similar citations to the record), 112–13 (addressing claims 8–13, 15, 18, and 26–30 with similar citations to the record). Relative to the other challenged claims, the Final Written Decision generally addresses claims 1–6 in more detail because the other challenged claims largely track the limitations of claims 1–6, and the Final Written Decision attempts to direct its focus to issues and limitations in dispute based on the parties' briefing. *See, e.g.*, FWD 47–108. After pages of analysis and findings, which build on the analysis of claim 1, the Final Written Decision cites to the persuasive portions of Petitioner's briefing and evidence, and ultimately determines that "[b]ased on the foregoing discussion, Petitioner shows by a preponderance of evidence that claims 2–6 would have been obvious over Kloba and Multer."[7] *See id.* at 108; *see id.* at 97–108 (citing Pet. 41–49; '1892 FWD 55, 57–59; Reply 21; Ex. 1005 ¶ 289). To the extent any doubt exists, the Final Written Decision

[7] Similarly, after citing to the Petition's assertions and noting that "Petitioner supports these assertions with citations to the record and the testimony of Dr. Kesidis" with respect to claims 7, 14, 16, 17, 19, and 21–25 (FWD 109 (citing Pet. 49–55, 60–62; '1892 FWD 55–56, 63)), the Final Written Decision states that "[b]ased on the foregoing discussion, Petitioner shows by a preponderance of evidence that claims 7, 14, 16, 17, 19, and 21–25 would have been obvious over Kloba, Multer, and Loughran." *Id.* at 112. The Final Written Decision employs similar language to summarize the portions of the Petition and the record that support obviousness by a preponderance of evidence for claims 8–13, 15, 18, and 26–30. *Id.* at 112–13 (citing Pet. 62–67; '1892 FWD 56, 62, 70–71). To the extent any doubt exists, we adopt and incorporate by reference as our own the cited portions of the Petition and '1892 FWD as persuasive with respect to these dependent claims.

adopts and incorporates Petitioner's persuasive showing at these cited pages and evidence as its own.

Based on the foregoing discussion, Patent Owner fails to show that the Final Written Decision misapprehends or overlooks a matter.

B. Claims 9, 16, 19, 27, and 28

Alleging evidentiary deficiencies in the Board's determination of obviousness with respect to claims 9, 16, 19, 27, and 28, Patent Owner contends that "a device that is communicating wirelessly cannot 'directly connect' to a hardwired network such as the Internet except through a wireless access point device (*i.e.*, a wireless router)." Reh'g Req. 12. Patent Owner also contends that "any contention that Patent Owner's expert witness admitted to the contrary is simply frivolous," because "the deposition question posed to Mr. Berg was *not* addressed to Kloba's wireless mobile devices nor in any way restricted to wireless devices at all." *Id.* at 12 (citing FWD 111; Ex. 1021, 147). Rather, according to Patent Owner, "Mr. Berg was asked whether 'you can have devices that are directly connected to the Internet,' which encompasses the conventional possibility of hardwire connections to the Internet." *Id.* (no citation by Patent Owner).

Patent Owner's Rehearing Request improperly raises a new issue, including its new characterization of Mr. Berg's testimony and its router arguments, and it fails to identify where Patent Owner raised the matters prior to the Rehearing Request. *See* Reh'g Req. 12; 37 C.F.R. § 42.71(d) ("The request must specifically identify all matters the party believes the Board misapprehended or overlooked, *and the place where each matter was previously addressed in a motion, opposition, or a reply*." (emphasis added)). The Final Written Decision specifically finds that "Patent Owner []

does not address Petitioner's reliance on and characterization of Mr. Berg's deposition testimony" in its Sur-reply. FWD 111 (citing Sur-reply 25–26). It also states that "Patent Owner simply contends that Petitioner 'does not dispute that Kloba's server sends no unique identifier for a particular device *when that device is connected to a router*.'" *Id.* (quoting Sur-reply 25) (emphasis added). 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. *See* PO Resp. 60–64 (describing router connections as *typical*); Sur-reply 25–26.

Even considering Patent Owner's new characterization of Mr. Berg's deposition testimony and related router arguments in the Rehearing Request, Patent Owner's argument that Petitioner's deposition question embraces responses about a direct hardwire connection (instead of a wireless connection) does not account for the full context of the colloquy during Mr. Berg's testimony. The challenged claims all depend from claims 1 or 20, which recite "*wireless* packet switched data messages." Ex. 1001, 26:60–61, 30:17–18 (emphasis added). The Final Written Decision finds that "a reading of Mr. Berg's cited deposition testimony *and testimony surrounding it* shows that Petitioner fairly and accurately characterizes it." FWD 111 (emphasis added). At one of the cited deposition testimony pages (Reply 26 (citing Ex. 1021, 147:13–20; 156:16–20); FWD 111 (citing same)), Mr. Berg testifies that he "doesn't recall specifically" in answer to a question of whether "Kloba talk[s] about routers anywhere?" *See* Ex. 1021, 156:16–20.

That question, in context, flows from questions and testimony on the same deposition transcript page about a "*direct connection* between the wireless module and *the Internet*"—i.e., no router:[8]

> Q. The next part of this Column 14 [of Kloba], or directly connected with the Internet, so at least is a *direct connection between the wireless module and the Internet, right*?
>
> A. Yes.
>
> Q. Okay. So in that situation *where the wireless module is directly connected to the Internet, it would have its own unique IP address, right, unique public IP address*?
>
> A. *I believe that's correct*.

Ex. 1021, 156:6–14 (emphasis added). In context, questions by Petitioner to Mr. Berg centered around a "wireless module," with no rational reason for Mr. Berg to include a response about a hypothetical hardwire connection, contrary to Patent Owner's argument. Moreover, this particular colloquy begins with cross-examination of Mr. Berg about his testimony at paragraph 113 of his declaration in support of Patent Owner's Response

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[8] Citing this deposition page, Petitioner's Reply states that "[Patent Owner's] expert also conceded that Kloba does not disclose using routers. [Ex. 1021], 156:16–20. Instead, as illustrated in the figures annotated below, Kloba's 'mobile devices . . . interact with the Internet' to directly communicate with the server." Reply 26 (quoting Ex. 1006, 4:45–63). At the cited passage, Kloba describes how "[t]he invention enables[] devices to operate in conjunction with a Web server, even when the mobile devices are not coupled directly to the PC using portable on-device servers . . . . Mobile devices to operate . . . *with the Web, Internet, or intranet . . . in wireless mode* with a continuous or a discontinuous connection mechanism." Ex. 1006, 4:45–63 (emphasis added). Kloba then refers to "[a]n example mobile device/server environment [a]s shown in FIG. 1V." *Id.* at 5:9–10. Therefore, as Petitioner contends, Figure 1V shows a direct wireless connection (i.e., no router) between a wireless device and a server. *See* Reply 26–27.

(Ex. 2029 ¶ 113). *See, e.g.*, Ex. 1021, 153:25–154:13 ("Why do you use the phrase 'typically connected through the Internet through a wireless router,' but why typically"?). Throughout the deposition testimony and exchange, it is clear that Mr. Berg's and Petitioner's counsel's discussions presume a "wireless module" in Kloba. At paragraph 113, for example, Mr. Berg testifies that Dr. Kesidis "*has also shown* that Kloba's *wireless* mobile devices *were typically connected to the Internet through a wireless router* (EX2028 115:23–116:22), that the server would communicate directly with the wireless router (EX2028 117:10–14), and that the wireless router would communicate with each of the mobile devices under its control (*id.*)."

Petitioner's Reply persuasively reproduces and annotates three figures in Kloba showing direct connections (i.e., wireless connections with no router) between a server and a wireless module or telephone. *See* Reply 27–28 (annotating Ex. 1006, Fig. 1V, Fig. 20, Fig. 36); *supra* note 8; FWD 111 (finding that "Petitioner provides evidence that Kloba's Figure 1V, Figure 30, and Figure 36 portray direct access between mobile devices and a server over the internet (using IP/HTTP for example in Figure 30) without using a router."). In context to Patent Owner's assertion that Petitioner's showing rests on an "inherency" theory and therefore must fail (Reh'g Req. 11), the Petition states that Kloba "discloses or *renders obvious* the requirement that the server and the mobile devices *wirelessly communicate* messages including management instructions to user devices pursuant to the packet-switched 'TCP/IP stack.'" Pet. 53–54 (quoting Ex. 1006, 9:57–67 ("server communication module 114 is a TCP/IP stack")) (emphasis added); *id.* at 12:13–16 ("the client communications module 110 enables TCP/IP traffic"), 21:67–22:1 ("the transmission protocol is TCP/IP")) (emphasis added); *see*

also supra note 8. Prior to this obviousness challenge, addressing claim 1, Petitioner persuasively states that "Kloba's mobile devices operate '*with the Web, Internet, or intranet in wireless mode*.' Kloba, 4:59–63. The server and the mobile devices may communicate using 'any type of wireless or wired communication using any protocol,' including the 'TCP/IP stack.' Kloba, 9:57–67, 12:13–20, 21:67–22:1)." *Id.* at 40 (quoting Ex. 1006) (emphasis added).

Then, from these facts showing wireless mobile phone Internet connectivity in Kloba, the Petition states that "PHOSITAs *would have understood* that messages sent to remote target devices via TCP/IP necessarily included unique identifiers for the intended target devices known as 'IP addresses.'" Pet. 54 (citing Ex. 1005 ¶ 305; '1892 FWD 56) (emphasis added). In addition, with respect to claim 2, Petitioner persuasively shows that Kloba discloses wireless connections to the Internet. As Petitioner notes, Kloba states that "[t]he invention includes technology for using applications on mobile devices that interact with the Internet," and "[t]he sync operation of the invention includes various synchronization processes that can collect information from the Internet to a server, and to the client." Pet. 41 (quoting Ex. 1006, 4:45–63, 5:30–32; citing Ex. 1005 ¶¶ 254–257). Petitioner also shows persuasively with respect to claims 1 and 20, from which the challenged claims ultimately depend, that

> PHOSITAs . . . would have been motivated to incorporate *wireless* packet-switched data messages into Kloba so that the disclosed system would be used by more people and on more types of devices. [] Because TCP/IP was routinely used in wireless communications by 2002, this modification to Kloba's system would have been trivial to PHOSITAs.

Pet. 40 (citing Ex. 1006, 9:57–67, 12:13–20, 21:67–22:1; Ex. 1005 ¶ 253) (emphasis added).

In other words, the Petition persuasively advances the obviousness of a TCP/IP protocol *wireless* connection to the Internet using IP addresses. Petitioner's use of the word "necessarily" refers to identifying the mobile asset using the IP address under the showing that it would have been obvious to connect wirelessly without a router to the Internet. *See* Pet. 40–41, 53–55; Reply 27–30.

Patent Owner does not dispute that in the absence of a router connection, Kloba teaches the claims at issue here. Rather, as indicated above, Patent Owner now contends that "a device that is communicating wirelessly cannot 'directly connect' to a hardwired network such as the Internet except through a wireless access point device (*i.e.*, a wireless router)." Reh'g Req. 12. Patent Owner provides no evidentiary support for this statement. *See id.* And similar to its other arguments noted above, it is an improper new argument not advanced in the Patent Owner Response or Sur-reply.

On the other hand, in addition to Kloba's wireless Internet teachings summarized above, as noted above, Petitioner relies on and reproduces three figures in Kloba that show wireless connections to networks, including the Internet, without a router. *See* FWD 111 (citing Reply 26–28 as "produc[ing] evidence" to show direct wireless Internet connections); Reply 27–28 (annotating Ex. 1006, Fig. 1V ("WIRELESS" "MOBILE DEVICE" connected to "COMPOSITE SERVER" connected to "WEB TO DEVICE SERVER" without a router), Fig. 30 ("IP/HTTP" "WIRELESS" "ONLINE" "INTER/INTRANET APPLICATIONS" and "MOBILE DEVICES"

without a router), Fig. 36 ("WIRELESS" "CLIENT" directly connected to "SERVER" at a "NETWORK" without a router).

Nevertheless, Patent Owner now contends that "[t]wo of these Figures reference 'dial-in' connections which clearly would *not* involve the claimed packet switched messaging, and if anything Figure 36 appears to depict mobile devices that are connected to the network rather than to the server." Reh'g Req. 12. Assuming Patent Owner refers to Koba's Figures 30 and 36, they show "WIRELESS *and* "DIRECT DIAL" or "DIAL-IN" connections, respectively. Contrary to Patent Owner's other argument, Figure 36 shows a direct connection between "WIRELESS" mobile phones and a "SERVER." In any event, Patent Owner did not advance these arguments prior to its Rehearing Request. Rather, Patent Owner's Sur-reply *assumes that Petitioner relies on a router* (Sur-reply 25–26), even though the Reply specifically and persuasively relies on the fact that "Kloba *does not disclose using routers*" (Reply 26 (emphasis added)). Therefore, Patent Owner's Rehearing Request arguments are untimely. Even if timely, as discussed, Petitioner shows that Kloba teaches direct wireless connections (i.e., no router) between a server and *wireless* device over the Internet with packet switching. *See* Reply 27–28 (annotating Ex. 1006, Fig. 1V, Fig. 30, Fig. 36).

Finally, similar to Mr. Berg's declaration testimony, Patent Owner's Response states that a "POSITA would understand the mobile devices of Kloba *were typically wirelessly connected to the Internet through a wireless router*, in which case the server would communicate directly with the wireless router and the wireless router would then, in turn, communicate with each of the mobile devices." PO Resp. 61 (citing Ex. 2029 ¶ 113

(citing the deposition testimony of Dr. Kesidis)); Ex. 2028, 115:23–116:22, 117:10–14) (emphasis added in part). Asserting that a person of ordinary skill would have recognized in Kloba *typical wireless* connections through a router acknowledges that an artisan of ordinary skill also would have recognized in Kloba the use of non-typical wireless connections—i.e., one without a router, especially where Kloba's figures and descriptions reveal wireless Internet connections without routers, as Petitioner shows. *Cf.* Ex. 2028, 116:10–113 (Dr. Kesidis testifying "there could be a number of different ways [mobile devices] could be connected to the Internet, either by packet switching over cellular or through WiFi"). In addition, Kloba discloses "Internet-enabled phones," and cellular phones, with all mobile devices wirelessly connected to the Internet, which Petitioner relies upon. *See, e.g.*, Pet. 15 (citing Ex. 1006, 4:24–39, 10:51–65), 22–23 (reproducing Ex. 1006, Table 2; citing Ex. 1006, 4:20–39, 10:41–50, 13:11–23).

Therefore, Patent Owner's argument and record evidence support Petitioner's showing. Based on the foregoing discussion, Patent Owner fails to show that the panel misapprehends or overlooks a matter in the Final Written Decision.

C. Collateral Estoppel and Other Arguments

The Final Written Decision applies the well-established collateral estoppel four-factor test throughout its analysis of applicable claim terms: "[C]ollateral estoppel precludes a party from relitigating an issue 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.'" FWD 13 (citing *VirnetX*

Inc. v. Apple, Inc., 909 F.3d 1375, 1377 (Fed. Cir. 2018) (quoting *Stephen Slesinger, Inc. v. Disney Enters., Inc.*, 702 F.3d 640, 644 (Fed. Cir. 2012)); *see also, e.g.*, FWD 15, 55 (applying the test).[9]

Patent Owner argues that collateral estoppel does not apply to the "'nonvolatile memory' preamble limitation of claims 1/20," because Patent Owner "raised herein new legal and factual issues, supported by new Berg expert testimony." Reh'g Req. 13. Patent Owner similarly argues collateral estoppel does not apply to the "consumer usage information" limitation of the challenged claims, because "Patent Owner [] raised new factual issues absent from the ['1892 IPR]." *See id.* The Federal Circuit recently dismissed this line of argument and held that "collateral estoppel applies 'even if new evidence exists.'" *Synqor, Inc. v. Vicor Corp.*, 988 F.3d 1341, 1355 (Fed. Cir. 2021) (quoting *Black v. Off. of Pers. Mgmt.*, 641 F. App'x 1007, 1009 (Fed. Cir. 2016)).

Synqor also reasons that

> [a] losing party does not get a second bite at the apple simply because they can find a new and arguably more persuasive witness to present their evidence; this is precisely the type of rematch that collateral estoppel is intended to foreclose to serve the interests of repose and finality.

Synqor, 988 F.3d at 1355 (citing *Astoria Fed. Sav. & Loan Ass'n v. Solimino*, 501 U.S. 104, 107 (1991) ("[A] losing litigant deserves no rematch after a defeat fairly suffered, in adversarial proceedings, on an issue identical in substance to the one he subsequently seeks to raise."); *Allen v. McCurry*,

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[9] Other circuits frame essentially the same four-factor test as a five-factor test. *See Phil-Insul Corp. v. Airlite Plastics Co.*, 854 F.3d 1344, 1353 (Fed. Cir. 2017) (noting that "[i]n the Eighth Circuit . . . . [c]ollateral estoppel requires five elements").

449 U.S. 90, 94 (1980) ("[C]ollateral estoppel relieve[s] parties of the cost and vexation of multiple lawsuits, conserve[s] judicial resources, and, by preventing inconsistent decisions, encourage[s] reliance on adjudication.")).

Regarding the "consumer usage information" issue, Patent Owner also argues that it "indisputably never contested [that issue] in the ['']1892 IPR whether Kloba satisfies that claim term under Petitioner's construction, and accordingly Factor 2 is not met." Reh'g Req. 14 (citing PO Supp. Br 12). To support this argument, Patent Owner contends that "[t]he Board now acknowledges that 'Patent Owner chose not to litigate' these issues previously." *Id.* (quoting FWD 59).

The Final Written Decision addresses Patent Owner's argument and also finds, contrary to Patent Owner's argument, that Patent Owner did litigate the same issues previously during the '1892 IPR. *See* Reh'g Req. 14. For example, the Final Written Decision states that "the Board already determined that the combination of Kloba and Multer renders this [consumer usage information] limitation obvious in the '1892 FWD *under a claim construction that materially tracks the claim construction adopted here*." *See* FWD 58 (citing '1892 FWD 22, 40–41) (emphasis added). The Final Written Decision further states that "as Petitioner also argues, Patent Owner should not be able to relitigate this issue here by relying on materially similar claim language as a patentable distinction," because "the Board [in the '1892 FWD] has effectively decided the issue of whether Kloba discloses 'consumer usage information.'" *Id.* at 58–59 (quoting Pet. Supp. Br. 18–19; citing *B & B Hardware, Inc. v. Hargis Indus., Inc*., 575 U.S. 138 (2015); *Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013) ("The application of collateral estoppel is not limited to

patent claims that are identical.")). Then, the Final Written Decision states that "the same material issue was necessary to the '1892 FWD judgment and actually litigated by the same parties during the '1892 IPR." *Id.* at 59.[10]

Patent Owner also argues that "Petitioner has cited to no case in history supporting the Board's *unprecedented legal theory* that because Patent Owner chose not to appeal issues relating to certain claim elements of the '358 patent from the [']1892 FWD, collateral estoppel now automatically precludes Patent Owner from litigating any issues herein -- including previously unlitigated issues -- pertaining to purportedly analogous elements of the '477 patent." PO Reply Reh'g Req. 5. This argument mischaracterizes the Final Written Decision—it does not reason that "collateral estoppel now automatically precludes Patent Owner from litigating any issues herein." Patent Owner also states that "*collateral estoppel* can arise from the Rule 36 judgment only as to those issues being raised by Patent Owner in these proceedings for which the governing four-

[10] The Final Written Decision states that "*[s]imilar to the preamble issue*, Patent Owner chose not to litigate whether Kloba teaches consumer usage information in the '1892 FWD." FWD 59 (citing Ex. 1204 [sic: 1024], 1–5, 47–61) (emphasis added). Patent Owner's argument here ignores the "similar to the preamble issue" part of the sentence and the findings on pages 55–59 of the Final Written Decision as summarized briefly herein, all of which lend context to the remaining portion of the sentence relied upon by Patent Owner. Perhaps the sentence should have stated that "similar to the preamble issue, Patent Owner chose not to litigate whether Kloba teaches consumer usage information [*during its appeal of*] the '1892 FWD"––i.e., similar to the preamble issue. Exhibit 1024 is Patent Owner's Brief to the Federal Circuit in its appeal of the '1892 FWD—further signifying that the sentence shows that Patent Owner chose not to litigate these issues *during its appeal* of the '1892 FWD.

factor test would be met." Reh'g Req. 15 (citing *VirnetX*, 909 F.3d at 1378).[11]

As Patent Owner argues, the four-factor test applies, including to non-appealed claim limitations litigated in the underlying '1892 IPR that are materially similar to claim limitations at issue here. However, Patent Owner's arguments asserting a lack of cited authority regarding nonappealed issues in Rule 36 judgments ignores that the case Patent Owner relies upon, *VirnetX*, cites *Phil-Insul,* 854 F.3d at 1356, which provides contrary guidance with respect to this issue. *VirnetX*, 909 F.3d at 1378. After noting that the losing party, IntegraSpec, "*did not raise on appeal issues* adjudicated in the district court's noninfringement decisions," *Phil-Insul* states that the district court's "determinations . . . *are final for collateral estoppel purposes by virtue of IntegraSpec's failure to appeal them*." *See Phil-Insul*, 854 F.3d at 1356 (emphasis added) ("An issue that falls within the scope of the judgment appealed from *but is not raised by the appellant in its opening brief on appeal is necessarily waived*. Unless remanded by this court, *all issues within the scope of the appealed judgment are deemed incorporated within the mandate and thus are precluded from further adjudication*." (quoting *Engel Indus., Inc. v. Lockformer Co.*, 166 F.3d 1379, 1383 (Fed. Cir. 1999) (emphasis added)); *see also Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.*, 924 F.3d 1243, 1250–51 (Fed. Cir. 2019) ("[T]he issue preclusion doctrine can apply in this court to the Patent Trial and Appeal Board's decision in an IPR once it becomes final.") (noting that losing party Pabst dismissed its appeals to the Federal

[11] Under Rule 36, "[t]he court may enter a judgment of affirmance without opinion." Fed. Cir. R. 36.

Circuit and applying collateral estoppel where "Papst has advanced no persuasive reason for an exception to applying the [four-factor test outlined in *B&B Hardware*] for issue preclusion") (citing *Martin v. Dep't of Justice*, 488 F.3d 446, 451–52, 454–55 (D.C. Cir. 2007) ("voluntary dismissal of appeal creates preclusion based on the predicate opinion")). And as indicated in the Final Written Decision, *Maxlinear* remanded the Board to consider the application of collateral estoppel based on prior IPR decisions including those affirmed via Rule 36 judgments even though the prior judgments involved *different* prior art and dependent claims *not considered in the prior judgments*. *See* FWD 51–52 (discussing and quoting *MaxLinear Inc. v. CF CRESPE LLC*, 880 F.3d 1373, 1377 (Fed. Cir. 2018) ("[T]he sole remaining question at issue is whether the dependent claims 4, 6–9, and 21, *not addressed in the earlier IPRs*, are unpatentable.") (emphasis added)).

Hence, the Rule 36 judgment involved here renders the '1892 FWD judgment final and forecloses new arguments about the materially similar non-appealed claim limitations at issue in the '1892 FWD that meet the four-factor test. In *VirnetX*, our reviewing court applied the four-factor test at the prior judgment appellate level (i.e., in "*VirnetX 1*") to determine if collateral estoppel applies where VirnetX *appealed the issue* leading to the prior judgments in that case about the prior art status of an "RFC 2401" document. *See VirnetX*, 909 F.3d at 1378 ("Indeed, in three of the seven final written decisions appealed in *VirnetX 1*, the *only* issue raised was whether RFC 2401 was a printed publication. Accordingly, by affirming all seven of the Board's decisions, this court in *VirnetX 1* necessarily found that RFC 2401 was a printed publication. Therefore, VirnetX is collaterally estopped by our Rule 36 judgment in *VirnetX 1* from relitigating the issue in

this appeal."). Here, as Petitioner argues, and the Final Written Decision notes, Patent Owner did not appeal the nonvolatile memory issue from the '1892 FWD, unlike the patent owner in *VinetX 1*.

Further regarding the "nonvolatile memory issue," Patent Owner argues it never "actually litigated" it, and also, that the issue was not "necessary" to the judgment, because the "[']1892 FWD made two alternative findings relating thereto." Reh'g Req. 14. Assuming for the sake of argument that the failure to appeal the issue from the '1892 FWD does not foreclose the argument under *Phil-Insul*, the Final Written Decision addresses these arguments. In summary, the Final Written Decision finds that in the '1892 IPR, the parties actually litigated and the Board necessarily determined that the nonvolatile memory limitation, which is the same limitation at issue here, does not patentably distinguish the challenged claims in the '1892 IPR over Kloba. *See* FWD 48–55. For example, referring to the '1892 FWD, the Final Written Decision here finds that "Patent Owner had the opportunity to, and did, fully and fairly litigate the issue of the claim construction of 'nonvolatile memory' and whether Kloba teaches the nonvolatile memory even if the preamble limits the claims." *Id.* at 50 (citing '1892 FWD 33–38 (finding Kloba teaches materially the same limitation even if the preamble is limiting)). The Final Written Decision also finds that the non-volatile memory "issue was actually litigated and necessary to the Board's determination in the '1892 FWD that the Federal Circuit affirmed in the M2M Federal Circuit Decision." *Id.* at 52 (citing '1892 FWD 33–38, §1B). The Final Written Decision also determines that the preamble is not limiting even under the claim construction standard

applied in the instant trial under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) and 37 C.F.R. § 42.100(b) (2019). *Id.* at 13–18.

The Final Written Decision reasons that "the question is 'whether the . . . claims present materially different issues that alter the question of patentability, making them patentably distinct from' the claims adjudicated in the '1892 IPR." FWD 52 (quoting *MaxLinear*, 880 F.3d at 1377–78). The Final Written Decision specifically states that "Petitioner shows that the nonvolatile memory limitation is not patentably distinct in both sets of claims involved in the two proceedings and it raises the exact same issue of whether Kloba teaches the limitation, even if the preamble limits the claims." *Id.* (citing Pet. Supp. Br. 14–16).

At the cited pages of the '1892 FWD, the Board states that "even if nonvolatile memory is a limitation, Petitioner's evidence shows this, as we now explain." '1892 FWD 34. The '1892 FWD explains over several pages how Kloba discloses the preamble (assuming it carries weight as a limitation) in response to several of Patent Owner's arguments. *See, e.g.*, *id.* at 34 ("Patent Owner argues that claim 1 requires a specific type of memory (nonvolatile) for storing specific files (files of data content for display) and that, in Kloba, files of data content for display are stored only in volatile memory. . . . Patent Owner argues that this disclosure merely teaches that a mobile device can include both nonvolatile and volatile memory, but does not teach that files of data content for display would have been stored in nonvolatile memory.").

Then, the '1892 FWD specifically "find[s] that Kloba broadly describes storing both objects (including files for display) and control logic on any of the available memories, including secondary storage devices and

computer program products, which can be nonvolatile." '1892 FWD 37–38. Based on the foregoing discussion, Patent Owner's assertion that "Factor 2" (i.e., "actually litigated") "is not met," and similar assertions regarding "Factor 3," do not address the Final Written Decision's findings and reliance upon the '1892 FWD. *See* Reh'g Req. 14.

Patent Owner's assertion with respect to "Factor 3" and the "nonvolatile memory" recitation that "neither of [two alternative findings] can [] be deemed 'necessary'," fails to address the Board's reliance on *Masco Corp. v. U.S.*, 303 F.3d 1316, 1329–32 (Fed. Cir. 2002) (applying the four factors for issue preclusion) in more than a conclusory fashion. *See* Reh'g Req. 14. Patent Owner similarly asserts that the Board here "displace[d] . . . the governing four-factor test for collateral estoppel" and instead

> minted a novel legal theory that because Patent Owner chose not to appeal issues that it could have relating to certain claim elements of the prior '358 patent [in the '1892 FWD], collateral estoppel now automatically precludes Patent Owner from litigating any issues herein pertaining to purportedly analogous elements of the '477 patent.

Id. at 14–15. As Petitioner persuasively explains, however, "the Board correctly stated and applied the four-factor test." Pet. Resp. Reh'g Req. 7 (citing FWD 55; *VirnetX,* 909 F.3d at 1377). As Petitioner also explains with respect to factor 3, where "there are alternative bases for a determination that is essential to the judgment," and the losing party fails to appeal that determination, "relitigation of the issue so determined is properly precluded." *Id.* at 8 (quoting Rest. (Second) of Judgments § 27, cmt. i

(1982)). This is a rationale the Final Written Decision applies, as Petitioner persuasively argues. *See id.* at 8–9 (citing FWD 53–54).[12]

Patent Owner fails to explain how analyzing and following *Masco*, 303 F.3d at 1316 (FWD 53–54), when Patent Owner admits that it "chose not to appeal issues that it could have," "mint[s] a new legal theory" (Reh'g Req. 14). As Petitioner persuasively explains, *Masco* is a collateral estoppel case. Pet. Resp. Reh'g Req. 7–8. As Petitioner also persuasively explains, "where, as here, there are alternative bases for a determination essential to a judgment and the losing party fails to appeal that determination, 'relitigation of the issue so determined is properly precluded.'" *Id.* at 9–10 (quoting Rest. (Second) of Judgments § 27, cmt. i (1982)).

In other words, as Petitioner argues, the Final Written Decision applies *Masco's* reasoning to address Patent Owner's argument that alternative determinations in the '1892 FWD preclude application of collateral estoppel to the nonvolatile memory recitation in the challenged claims. *See* FWD 52–55. As indicated above, Patent Owner does not

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[12] Patent Owner asserts that "**the parties both agree** that Factor 3 is *not* met as to any 'nonvolatile memory' issues because the [']1892 FWD made two alternative findings relating thereto, neither of which can thus be deemed 'necessary.'" Reh'g Req. 14 (citing (Pet. Supp. Br. 8, 15)). Based on this assertion, Patent Owner argues that "the Board outright contradicts both parties by asserting in conclusory fashion that Factor 3 *is* satisfied without providing any explanation or evidence." *Id.* These arguments ignore the findings in the Final Written Decision and assume that the Board must adopt agreements by the parties even if adopting them amounts to legal error. And these arguments downplay Petitioner's argument that Patent Owner cannot relitigate the same material non-volatile memory issue because the Board "should still be guided by the underlying rationale behind the doctrine" of "collateral estoppel." Pet. Supp. Br. 15.

address the Board's reliance on *Masco* in more than a conclusory fashion. Rather, in arguing that the Board "minted a novel legal theory" (Reh'g Req. 14), Patent Owner explains that "*collateral estoppel* can arise from the Rule 36 judgment only as to those issues being raised by Patent Owner in these proceedings for which the governing four-factor test would be met" (*id.* at 15). Here, however, as explained above, the four-factor test applies to the underlying '1892 FWD as a final judgment after the Rule 36 affirmance.

Setting aside the lack of appeal for a moment, with further respect to *Masco's* reasoning regarding alternative determinations and factor 3 (i.e., "the judgment in that prior action necessarily required determination of the identical . . . issue"), Petitioner's reliance on *Intellectual Ventures I LLC v. Capital One Financial Corp.*, 937 F.3d 1359, 1375 (Fed. Cir. 2019), *reh'g denied*, 943 F.3d 1383 (Fed. Cir. 2019), is also persuasive. *See* Reh'g Req. 9–10 & n.1.

Like *Masco, Intellectual Ventures* notes that

> the Second Restatement adopted, as a general rule, the position that "[i]f a judgment of a court of first instance is based on determinations of two issues, either of which standing independently would be sufficient to support the result, the judgment is not conclusive with respect to either issue standing alone."

Intellectual Ventures, 937 F.3d at 1375 (quoting Restatement (Second) of Judgments § 27 cmt. i & reporter's note, at 270 (1982)); *Masco*, 303 F.3d at 1330 (quoting same—cmt. i).[13] *Intellectual Ventures* then states that the

[13] *Intellectual Ventures* generally employs persuasive authority, policy considerations, and Fourth Circuit precedent, to decide the issue of whether collateral estoppel applies to independent alternative determinations in the Fourth Circuit. *See* 937 F.3d at 1373–77.

general rule "is not the end of the story." *See Intellectual Ventures*, 937 F.3d at 1376.

Intellectual Ventures assumes that collateral estoppel may apply (under the four-factor test) to alternative determinations in a prior judgment if "they are not integrally related." *See id.* at 1372 ("Even assuming, as Capital One argues, that the two issues decided by Judge Trenga *are not integrally related*, but instead should be treated as independent and alternative grounds for decision, we still conclude that Judge Grimm was correct in applying collateral estoppel to Judge Trenga's relevant market ruling, although our analysis differs somewhat from Judge Grimm's.") (emphasis added).

In other words, like *Masco*, *Intellectual Ventures* indicates that alternative determinations should not foreclose application of collateral estoppel in the case at hand. *See* FWD 53 (citing and analyzing *Masco*). And as explained above, *Intellectual Ventures* indicates that collateral estoppel may apply not only to "integrally related" alternative determinations, 937 F.3d at 1372–73, but also when "all of the alternative determinations would be pertinent" to both cases:

> [T]he case for applying collateral estoppel to alternative determinations is much stronger when all of the alternative determinations in the first case would be independently sufficient to dispose of the second case. In such a case, since all the alternative determinations would be pertinent to the second case, the losing party in the first case would not be discouraged from taking an appeal because of the presence of a strong alternative determination that is irrelevant to the second case. Likewise, a party would be less likely in such a setting to take an otherwise improvident appeal simply out of a desire to avoid preclusion on one of multiple adverse rulings.

Intellectual Ventures, 937 F.3d at 1375; *see* Pet. Reply Reh'g Req. 10 n.1 (citing *Intellectual Ventures*, 937 F.3d at 1375).

Both determinations, i.e., whether the preamble is limiting and if so whether Kloba teaches it, are not "irrelevant to the second case." *See Intellectual Ventures*, 937 F.3d at 1375. From the perspective of Petitioner, each of the determinations independently disposes of the nonvolatile memory limitation issue in the '1892 FWD and in this case. *See id.* ("In some cases, however, any one of the alternative grounds that were independently sufficient to dispose of the first action would also be independently sufficient to decide the second. In that circumstance, the policies underlying the non-preclusion rule adopted in the Second Restatement are significantly diluted.").

From the perspective of Patent Owner as the "the losing party," it "would not be discouraged from taking an appeal" of the '1892 FWD because of an "irrelevant" "alternative determination." *See Intellectual Ventures*, 937 F.3d at 1375. In an appeal of the '1892 FWD, Patent Owner reasonably would not have appealed only the first issue (whether the preamble is limiting) without also appealing the second issue (whether Kloba teaches it) and vice versa. For example, if Patent Owner successfully had appealed the first issue such that our reviewing court were to have held the preamble is limiting, it would not have disposed of the case without our reviewing court also having resolved the second issue of whether Kloba teaches it.[14] And if Patent Owner successfully had appealed the second

[14] On the other hand, if Patent Owner were to have appealed and lost on either the preamble determination or the Kloba determination in a hypothetical appeal of the '1892 FWD, and the reviewing court only reached

issue such that our reviewing court were to have held that Kloba does not teach the preamble, it would not have disposed of the case without our reviewing court also having resolved the first issue of whether the preamble is limiting.[15] So these alternative determinations in the '1892 FWD are "integrally related" and/or neither one is an "irrelevant" "alternative determination" to the instant case. *See Intellectual Ventures*, 937 F.3d at 1371, 1375. A tribunal must first determine or assume the preamble is limiting before reaching the issue of whether Kloba teaches it, as the Board did in both trials.

In any case, whether integrally related or independently sufficient, the two determinations were necessary to the '1892 FWD because the Board determined that Petitioner showed persuasively that the nonvolatile memory limitation did not patentably distinguish the claims challenged there over Kloba. And the Board reached the Kloba determination only after assuming the preamble is limiting. *See Intellectual Ventures*, 937 F.3d at 1371 ("The two issues on which Judge Trenga based his dismissal order are not independent and alternative grounds of decision, but are integrally related. . . . Judge Trenga's finding on the relevant market issue therefore satisfied the requirement, for collateral estoppel purposes, that an issue of fact decided in

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one determination but not the other, either determination would have disposed of the case in terms of the nonvolatile memory recitation (i.e., not in terms of any other claim limitations argued). It would have been unnecessary for our reviewing court to reach the other determination involved in the nonvolatile memory recitation.

[15] Of course, if Patent Owner were to have lost on the Kloba issue, it would have disposed of the case (in terms of the nonvolatile memory recitation) and it would have been unnecessary for our reviewing court to reach the first issue.

the prior proceeding be critical and necessary to the judgment in that proceeding."), 1380 ("And even if the two issues are regarded as alternative grounds for decision, each was independently sufficient to dispose of the first action and therefore would be independently sufficient to dispose of the second."). Also, as noted above, Patent Owner did not appeal the issue from the '1892 Final Written Decision, as the reasoning of *Masco* requires.

In summary, Patent Owner argues that because the Board in the '1892 FWD reached alternative determinations as to why the nonvolatile memory recitation is not patentable over Kloba, collateral estoppel does not prevent it from relitigating the same exact issue here, even though Patent Owner did not appeal the issue in the '1892 FWD. *See* Reh'g Req. 13–14. In essence, Patent Owner argues that the Rule 36 judgment affirming the '1892 FWD erases any collateral estoppel effects of that decision as to materially the same claim limitations even though Patent Owner did not appeal the consumer usage information issue or the alternative determinations involved in the preamble. *See id.* at 15 ("**The type of res judicata that attaches to the Rule 36 judgment relative to unappealed issues is 'claim preclusion' and *not* collateral estoppel,** merely resulting in Patent Owner being precluded from bringing future actions *on the '358 patent* asserting any validity positions that it raised or could have raised on appeal.").

Patent Owner's restriction of Rule 36 judgments as merely preventing a losing patent owner from asserting *the same patent* undermines the Supreme Court's holding in *B & B Hardware* that "'issue preclusion should apply' to the final written decision of the . . . Board." *MaxLinea*r, 880 F.3d at 1376 (quoting *B & B Hardware*, 575 U.S. at 148). Holding as Patent Owner argues here would encourage patent owners not to appeal or at most

to appeal from the Board on a single issue so that even if a patent owner loses the appealed issue in a Rule 36 judgment (which occurred here with respect to the '1892 FWD), all effects of collateral estoppel would disappear from the Board's final written decision as to all unappealed claim limitations, thereby allowing the patent owner to obtain materially the same patent claims in different patents and assert them against market participants.

Patent Owner also argues that in applying collateral estoppel, the Final Written Decision "ignored" Patent Owner's new arguments in this trial (relative to the '1892 FWD) that the claims do not cover external secondary storage devices. *See* Reh'g Req. 13. But as Petitioner explains, the Final Written Decision adopts the findings in the '1892 FWD, including that Kloba's "data processing unit 103A *can* include secondary storage devices, such as *hard drives*" and that Kloba discloses different types of memory, including nonvolatile memory, as applicable to different types of generic mobile devices, thereby satisfying the nonvolatile memory limitation. *See* Pet. Resp. Reh'g Req. 5 (quoting '1892 FWD 36; FWD 36, 49); FWD 49 (citing '1892 FWD 34–36).

Regarding Patent Owner's related argument that the claim term "having" in the preamble precludes hardware (like memory) from merely being "connected to" a mobile device (PO Resp. 22; Reh'g Req. 13 (citing PO Resp. 22–25)), even if that is correct, Kloba states that "[d]ata processing unit 103A *may include* secondary storage devices 103E, such as but not limited to hard drives 103F or computer program product interfaces 103G," and it "includes . . . main memory 103D . . . [which] may be RAM, ROM, or any other memory type." Ex. 1006, 13:27–33. Computer product interfaces 103G include "floppy drives, ZIP™ drives, . . . optical storage devices, etc."

Id. at 13:38–39. And data processing unit 103A includes all "the entities shown in FIGS 1A and 1B" (*id.* at 13:14–15), i.e., device 106 and/or client 108, which in turn include all the computer assets relied upon by Petitioner, including "mobile computing devices . . . cellular phones, internet-enabled phones," and so on (*id.* at 10:41–50). The '1892 FWD makes the same findings, which the Final Written Decision adopts. *See* FWD 49 (adopting and incorporating the finding that Kloba teaches the nonvolatile memory limitation at '1892 FWD 34–38). Moreover, the '1892 FWD notes, *inter alia*, that Patent Owner "argues that [Kloba] merely teaches that a mobile device *can include both nonvolatile and volatile memory*." '1893 FWD 34 (emphasis added) (citing Paper 19 (Patent Owner Response) at 11) (Patent Owner admitting that "Kloba's disclosure of various types of memory merely establishes that the mobile device included both nonvolatile memory (e.g., ROM) and volatile memory (e.g., RAM).").

The Final Written Decision also finds that the '477 patent specification describes *external* wireless modules 10 (which according to Patent Owner's arguments in the '1892 FWD, contain non-volatile memory in memory module 70 ('1892 FWD 13)), as merely *communicating with* a mobile phone: "Mobile phone or message-enabled wireless terminal 170 communicates with specific wireless module 10 . . . ." FWD 5 (citing Ex. 1001, 15:66, 16:3–7); *see also* '1892 FWD 17 (citing '1892 FWD 11–16).

In addition, the Final Written Decision notes that during prosecution of the application that led to the '477 patent (and a related continuation patent), the examiner found that the nonvolatile memory limitation was known in the art. *See* FWD 17 (citing Ex. 1004, 101), 55 n.13 (citing Ex. 1003 (prosecution history of the '477 patent), 84). So even though the Final

Written Decision applies collateral estoppel, the Board did not ignore new arguments by Patent Owner here relative to the '1892 IPR.

Based on the foregoing discussion, Patent Owner fails to show that the panel misapprehended or overlooked a matter in the Final Written Decision.

III. CONCLUSION

Based on the foregoing discussion, we deny Patent Owner's request to modify the Final Written Decision in the manner advanced by Patent Owner. Final Outcome of Final Written Decision after Rehearing follows:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–6	103(a)	Kloba, Multer	1–6	
7, 14, 16, 17, 19–25	103(a)	Kloba, Multer, Loughran	7, 14, 16, 17, 19–25	
8–12, 15, 18, 26–30	103(a)	Kloba, Multer, Loughran, Fong	8–12, 15, 18, 26–30	
13	103(a)	Kloba, Multer, Loughran, Fong, Chow	13	
Overall Outcome			1–30	

IV. ORDER

For the reasons given, it is ORDERED that the Patent Owner's Rehearing Request is *denied*.

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