UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PANASONIC CORPORATION AND
PANASONIC CORPORATION OF NORTH AMERICA,
Petitioners,

v.

CELLSPIN SOFT, INC.,
Patent Owner.

Case IPR2019-00131[1]
Patent No. 9,258,698 B2

PATENT OWNER'S NOTICE OF APPEAL

[1] GoPro, Inc., Garmin International, Inc. and Garmin USA, Inc. ('1108 Petitioners) were joined to this proceeding. See Paper 29, 30 (ordering that "the '1108 Petitioners are joined with IPR2019-00131").

Including pursuant to 35 U.S.C. §§ 141-44, 37 C.P.R. § 1.983, and 37 C.P.R. § 90.2(a), notice is hereby given that Patent Owner Cellspin Soft, Inc. ("Patent Owner") appeals to the United States Court of Appeals for the Federal Circuit for review of the Patent Trial and Appeal Board's ("Board") Final Written Decision entered April 28, 2020 (Paper 59); and all preceding and underlying orders, decisions, rulings and opinions related thereto and included therein. A copy of the Final Written Decision is attached.

In accordance with 37 C.P.R. § 90.2(a)(3)(ii), Patent Owner indicates that the issues on appeal include, but are not limited to:

- the Board's application and use of the broadest reasonable interpretation standard and claim constructions and/or non-constructions, including of "paired wireless connection", "cryptographically authenticating," "graphical user interface (GUI)" in a cellular phone, and/or "mobile software application";
- the Board's application of the claim terms to the alleged prior art;
- determinations in the institution that Claims 1–22 of U.S. Patent No 9,258,698 (the "'698 patent") were shown by a reasonable likelihood to be unpatentable;

- the Board's Final Written Decision, including the Board's determination that Claims 1–22 are unpatentable;
- the Board's deviation from the grounds in the petition;
- the Board's raising its own obviousness theories including concerning what appears to be a new obviousness theory;
- violation of due process and/or the Administrative Procedure Act;
- violation of the Appointments Clause, including with respect to all actions from institution through final decision;
- the Board's denial of Patent Owner's Motion to Strike and/or Motion to Exclude;
- retroactive application of inter partes review to Patent Owner's Patent;
- the Board's consideration and analysis of the expert testimony, prior art, and other evidence in the record;
- the Board's factual findings, conclusions of law, or other determinations supporting or relating to the above issues; and
- all other issues decided adversely to Patent Owner in any orders, decisions, rulings and opinions by the Board.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. §§ 90.2(a) and 90.3(a), this Notice is being timely filed with the Director of the United States Patent and Trademark

Office within 63 days of the Board's Order, and a copy of this Notice is being concurrently filed with the Patent Trial and Appeal Board and the Clerk of the United States Court of Appeals for the Federal Circuit.

Dated: June 25, 2020

Respectfully submitted,

By: /s/ John J. Edmonds
John J. Edmonds, Reg. No. 56,184
EDMONDS & SCHLATHER, PLLC
355 South Grand Avenue, Suite 2450
Los Angeles, CA 90071
Telephone: 213-973-7846
Facsimile: 213-835-6996
Email: pto-edmonds@ip-lit.com
Email: jedmonds@ip-lit.com

By: /s/ Kirk J. Anderson
Kirk J. Anderson, CA SBN 289043
BUDO LAW P.C.
5610 Ward Rd., Suite #300
Arvada, CO 80002
Telephone: 720-225-9440
Facsimile: 720-225-9331
Email: kanderson@budolaw.com

Attorneys for Patent Owner Cellspin Soft, Inc.

CERTIFICATE OF SERVICE

The undersigned certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's E2E, the foregoing Notice of Appeal was filed by Express Mail on June 25, 2020 with the Director of the United States Patent and Trademark Office, at the following address:

Director of the United States Patent and Trademark Office
Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

The undersigned certifies that a copy of the foregoing Notice of Appeal, along with the required docket fee, was filed on June 25, 2020 with the Clerk's Office for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF filing system.

The undersigned further certifies service pursuant to 37 C.F.R. § 42.6(e) of a copy of this Notice of Appeal, at least by electronic mail, on June 25, 2020 on the counsel of record for Petitioners:

T. Vann Pearce, Jr.
Orrick, Herrington & Sutcliffe, LLP
1152 15th Street, N.W.
Washington, D.C. 20005-1706
vpearce@orrick.com

David R. Medina

Orrick, Herrington & Sutcliffe, LLP
1000 Marsh Road
Menlo Park, CA 94025
dmedina@orrick.com

Attorneys for Petitioners Panasonic Corporation of North America and Panasonic Corporation

David T. Xue
Karineh Khachatourian
Rimon Law
2479 East Bayshore Road, Suite 210
Palo Alto, CA 94303
david.xue@rimonlaw.com
karinehk@rimonlaw.com

Jennifer C. Bailey Adam P. Seitz
Erise IP, P.A.
7015 College Boulevard, Suite 700
Overland Park, KS 66211
jennifer.bailey@eriseip.com
adam.seitz@eriseip.com
PTAB@eriseip.com

Attorneys for Petitioners GoPro, Inc., Garmin International, Inc., and Garmin USA, Inc.

DATED: June 25, 2020

By: /s/ John J. Edmonds
John J. Edmonds, Reg. No. 56,184

By: /s/ Kirk J. Anderson
Kirk J. Anderson (CA SBN 289043)

Exhibit A

Trials@uspto.gov
571-272-7822

Paper No. 59
Date: April 28, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PANASONIC CORPORATION AND
PANASONIC CORPORATION OF NORTH AMERICA,
Petitioner,

v.

CELLSPIN SOFT, INC.,
Patent Owner.

IPR2019-00131[1]
Patent 9,258,698 B2

Before GREGG I. ANDERSON, DANIEL J. GALLIGAN, and STACY B. MARGOLIES, *Administrative Patent Judges*.

ANDERSON, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
Denying Petitioner's Motion to Strike
Denying Patent Owner's Motion to Strike/Exclude
35 U.S.C. § 318(a)

---

[1] GoPro, Inc., Garmin International, Inc. and Garmin USA, Inc. ('1108 Petitioners) were joined to this proceeding. *See* Paper 29, 30 (ordering that "the '1108 Petitioners are joined with IPR2019-00131").

I. INTRODUCTION

Panasonic Corporation and Panasonic Corporation of North America (collectively "Petitioner") filed a Petition (Paper 1, "Pet.") pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1, 3–5, 7, 8, 10–13, and 15–20 ("challenged claims") of U.S. Patent No. 9,258,698 ("'698 patent"), which was filed on November 5, 2014.[2] Ex. 1003, code (22). Cellspin Soft, Inc. ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp."). We instituted an *inter partes* review of all challenged claims (Paper 11, "Inst. Dec.").[3]

After institution, Patent Owner filed a Patent Owner Response (Paper 19, "PO Resp."), Petitioner filed a Reply (Paper 23, "Reply"), and Patent Owner filed a Sur-reply (Paper 30, "Sur-Reply"). The Petition is supported by the Declaration of Dr. John Strawn (Ex. 1001, "Strawn Declaration"). The Reply is supported by the Second Declaration of Dr. John Strawn (Ex. 1024, "Strawn Reply Declaration"). The deposition of Dr. Strawn was taken by Patent Owner after the Strawn Reply Declaration was filed (Ex. 2030). The Response is supported by the Declaration of Dr. Michael Foley (Ex. 2009, "Foley Declaration"). The Sur-reply is supported by the Declaration of Dr. Michael Foley Concerning Patent Owner's Sur-reply to Petitioner's

---

[2] Petitioner states that the '698 patent claims priority to Provisional Application No. 61/017,202, filed December 28, 2007. Pet. 6; Ex. 1001, code (60), 1:26–29. All of the prior art references were published prior to December 28, 2007.

[3] Canon U.S.A., Inc. also filed a petition for *inter partes* review of some of the claims of the '698 patent in *Canon U.S.A., Inc. v. Cellspin Soft, Inc.*, IPR2019-00127 ("'127 IPR"). The '127 IPR alleges different grounds of unpatentability.

Reply (Ex. 2026, "Foley Sur-reply Declaration"). The deposition of Dr. Foley was taken by Petitioner after the Foley Declaration was filed (Ex. 1023). An oral hearing was held on January 28, 2020, and a transcript made of record (Paper 58, "Tr.").

We authorized each party to file a motion to strike (Paper 40, "Order"). Pursuant to our Order, Petitioner filed a Motion to Strike (Paper 44, "Pet. Mot."), to which Patent Owner filed a Response (Paper 48, "PO Opp."). Also as authorized in the Order, Patent Owner filed its separate Motion to Strike and, Alternatively, Exclude Improper Reply and Reply Evidence (Paper 45, "PO Mot.), to which Petitioner filed an Opposition (Paper 46, "Pet. Opp.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1, 3–5, 7, 8, 10–13, and 15–20 of the '698 patent are unpatentable.

II. BACKGROUND

A. Related Proceedings

As required by 37 C.F.R. § 42.8(b)(2), each party identifies various judicial or administrative matters that would affect or be affected by a decision in this proceeding. Pet. 3–5; Paper 5, 2. In each of these district court cases, the District Court granted a motion to dismiss, finding the claims of the '698 patent ineligible for patent protection under 35 U.S.C. § 101. *See Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1309 (Fed. Cir. 2019); *see also* Ex. 2007 (Order Re: Omnibus Motion to Dismiss; Motion for Judgment on the Pleadings, dated April 3, 2018)). On June 25, 2019, the

Federal Circuit vacated the district court's dismissal and remanded for further proceedings. *Cellspin Soft*, 927 F.3d at 1309, 1320 (Fed. Cir. 2019).

The '698 patent is also challenged in the '127 IPR. Petitioners in *GoPro, Inc., Garmin International, Inc. and Garmin USA, Inc. v. Cellspin Soft, Inc.*, IPR2019-01107 ("'1107 IPR") were joined as parties to the '127 IPR. *See* '127 IPR, Paper 27 (joining '1107 petitioners to the '127 IPR).

B. Real Parties in Interest

Panasonic Corporation of North America and Panasonic Corporation are alleged to be real parties-in-interest. Pet. 2. GoPro, Inc., Garmin Int'l, Inc., Garmin USA, Inc., Garmin Switzerland GmbH are also identified as real parties in interest. IPR2019-01108, Paper 1, 3. Patent Owner Cellspin Soft, Inc. alleges it is the real-party-in-interest. Paper 5, 2.

C. Technology and the '698 Patent

The '698 patent is directed to "distribution of multimedia content." Ex. 1003, 1:40–41. The system described includes using a digital data capture device in conjunction with a cellular phone to automatically publish "data and multimedia content on one or more websites simultaneously." *Id.* at 1:41–45.

1. Technology

According to the '698 patent, in the prior art,

> the user would capture an image using a digital camera or a video camera, store the image on a memory device of the digital camera, and transfer the image to a computing device such as a personal computer (PC). In order to transfer the image to the PC, the user would transfer the image off-line to the PC, use a cable such as a universal serial bus (USB) or a memory stick and plug the cable into the PC. The user would then manually upload the image onto a website which takes time and may be inconvenient for the user.

Ex. 1003, 1:46–55.

2. The '698 Patent (Ex. 1003)

The '698 patent describes a digital data capture device, which may be "a digital camera, a video camera, digital modular camera systems, or other digital data capturing systems." Ex. 1003, 3:34–38, 3:41–44. The digital data capture device works with a Bluetooth-enabled mobile device, e.g., a cell phone, "for publishing data and multimedia content on one or more websites automatically or with minimal user intervention." *Id.* at 3:34–38.

Figure 2 of the '698 patent is reproduced below.

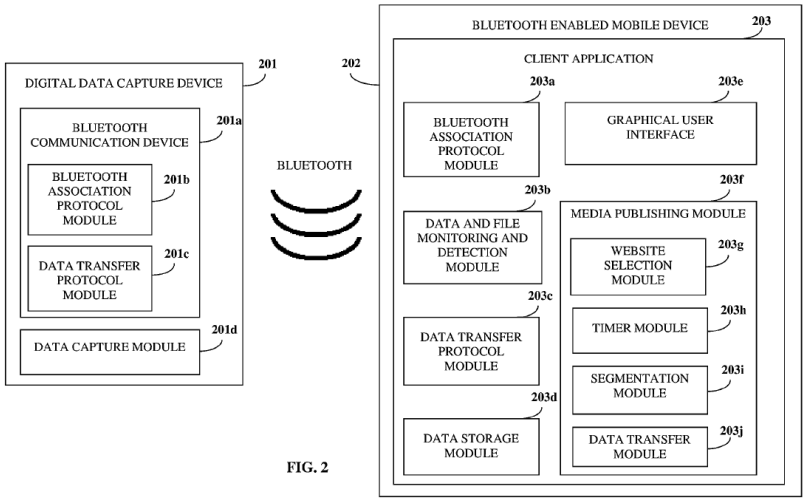


FIG. 2

Figure 2 "illustrates a system for utilizing a digital data capture device in conjunction with a Bluetooth enabled mobile device." Ex. 1003, 3:14–18. Referring to Figure 2, "[t]he BT [("Bluetooth")] communication device 201*a* on the digital data capture device 201 is paired 103 with the mobile device 202 to establish a connection between the digital data capture device 201 and the mobile device 202." *Id.* at 3:60–63. According to the '698 patent, Bluetooth pairing involves establishing a connection between two Bluetooth devices that "mutually agree to communicate with each other." *Id.* at 3:63–65. A communication may be authenticated

cryptographically using a "common password known as a passkey," which "is exchanged between the BT communication device 201*a* and the mobile device 202." *Id.* at 3:65–4:8.

Still referring to Figure 2, a user captures data and multimedia content using digital data capture device 201. *Id.* at 4:26–27. Client application 203 on mobile device 202 detects the captured data, the multimedia content, and "files associated with the captured data and the multimedia content." *Id.* at 4:29–32. The client application initiates a transfer of the captured data and the digital data capture device automatically transfers the captured data from the mobile device using one or a combination of file transfer protocols. *Id.* at 4:32–42. The transfer protocols include "one or a combination of BT profile protocols such as the object exchange (OBEX) protocols," such as the generic object exchange profile (GOEP) protocol, the media transfer protocol (MTP), the picture transfer protocol (PTP), and the PictBridge protocol implemented using a USB. *Id.* at 4:42–48.

The user may set preferences regarding timing of the publication of the captured data and the destination website. Ex. 1003, 5:23–38. "The client application 203 on the mobile device 202 then automatically publishes 107 the transferred data and multimedia content on one or more websites." *Id.* at 5:39–41.

D. Illustrative Claim

Claims 1 (method), 5 (device), 8 (system), and 13 (computer readable-medium) are independent claims.[4] Claims 3 and 4 depend from claim 1.

---

[4] Petitioner provides an "APPENDIX: CLAIM LISTING (37 C.F.R. § 42.24)" Pet. 76–85. The Appendix provides a table organizing "Common Claim Limitations" for independent claims 1, 5, 8, and 13. *Id.* at 76–83; *see also id.* at 24–25 (describing the table and its use in the Petition). The

Claims 7, 17, and 19 depend from claim 5. Claims 10–12 and 20 depend from claim 8. Claims 15, 16, and 18 depend from claim 13.

Claim 1 is reproduced below as illustrative.

> 1. A machine-implemented method of media transfer, comprising:
>
> for a digital camera device having a short-range wireless capability to connect with a cellular phone, wherein the cellular phone has access to the internet, performing in the digital camera device:
>
> establishing a short-range paired wireless connection between the digital camera device and the cellular phone, wherein establishing the short-range paired wireless connection comprises, the digital camera device cryptographically authenticating identity of the cellular phone;
>
> acquiring new-media, wherein the new-media is acquired after establishing the short-range paired wireless connection between the digital camera device and the cellular phone;
>
> creating a new-media file using the acquired new-media;
>
> storing the created new-media file in a first non-volatile memory of the digital camera device;
>
> receiving a data transfer request initiated by a mobile software application on the cellular phone, over the established short-range paired wireless connection,

---

Appendix sets out the challenged dependent claims in full. *Id.* at 83–85. Patent Owner adopts the Common Claim Limitation format of the Petition. *See, e.g.*, PO Resp. 32 ("'Limitation C' – No paired Connection"). We use Petitioner's common limitations approach to analyzing the independent claims.

> wherein the data transfer request is for the new-media file, and wherein the new-media file was created in the digital camera device before receiving the data transfer request; and
>
> transferring the new-media file to the cellular phone, over the established short-range paired wireless connection, wherein the cellular phone is configured to receive the new-media file, wherein the cellular phone is configured to store the received new-media file in a non-volatile memory device of the cellular phone,
>
> wherein the cellular phone is configured to use HTTP to upload the received new-media file along with user information to a user media publishing website, and
>
> wherein the cellular phone is configured to provide a graphical user interface (GUI) in the cellular phone, wherein the graphical user interface (GUI) is for the received new-media file and to delete the created new-media file.

Ex. 1003, 11:54–12:26; *see* Pet. 76–83 (claim 1 and common limitations with claims 5, 8, and 13).

E. Asserted Ground of Unpatentability

Petitioner challenges claims 1, 3–5, 7, 8, 10–13, and 15–20 of the ’698 patent as unpatentable. Pet. 8–9, 26–73.

Claims Challenged	35 U.S.C. §[5]	References/Basis
1, 3–5, 7, 8, 10–13, 15–20	103	Mashita,[6] Onishi,[7] Hiraishi[8]

III. ANALYSIS

A. Claim Construction

This Petition was filed prior to November 13, 2018, and so we interpret claim terms of the challenged claims using the broadest reasonable construction in light of the specification of the '698 patent. 37 C.F.R. § 42.100(b) (2018); *see Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016) (upholding the use of broadest reasonable construction standard in inter partes review); *see also* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,340 (Oct. 11, 2018) (final rule) ("This rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or after the effective date.").

---

[5] The Leahy-Smith America Invents Act (AIA), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), amended 35 U.S.C. §§ 102 and 103, and those amendments became effective March 16, 2013. The '698 patent claims priority through a chain of continuation applications to Application 12/333,303 [U.S. Pat. No. 8,392,591], filed on December 11, 2008, which is before the effective date of the relevant sections of the AIA. Ex. 1001, code (63). Thus, the grounds asserted are under the pre-AIA version of § 103.
[6] Mashita, JP 2003-51772, published February 21, 2003 (Ex. 1005 (original Japanese language version); Ex. 1006 (certified English language translation)). We reference the English translation, Exhibit 1006.
[7] Onishi, JP 2003-299014, published October 17, 2003 ("Onishi," Ex. 1007 (original Japanese language version); Ex. 1008 (certified English language translation)). We reference the English translation, Exhibit 1008.
[8] Hiraishi, JP 2004-102810, laid open April 2, 2004 ("Hiraishi," Ex. 1009 (original Japanese language version); Ex. 1010 (certified English language translation)). We reference the English translation, Exhibit 1010.

Petitioner proposes constructions for the following terms, which appear in each of the challenged independent claims (claims 1, 5, 8, and 13): "wherein establishing the short-range paired wireless connection comprises, the digital camera device cryptographically authenticating identity of the cellular phone"); "new-media;" and "graphical user interface (GUI)." Pet. 10–14. Patent Owner proposes constructions for "paired connection," "cryptographically authenticated,"[9] and "graphical user interface." PO Resp. 20–21. In the Institution Decision we construed only "cryptographically authenticating." Inst. Dec. 9.

1. "paired wireless connection"

The claim terms "paired wireless connection" and "cryptographically authenticating," discussed immediately below in Section III.A.2, appear in the following "wherein" clause of claim 1:

> wherein establishing the short-range *paired wireless connection* comprises, the digital camera device *cryptographically authenticating* identity of the cellular phone.

Ex. 1003, 11:62–65 (emphasis added). The same language appears following "wherein" clauses in the other independent claims 5, 8, and 13.

The claim term "paired wireless connection" is sometimes referred to in the papers, and in this Decision, as "paired connection," "paired," or "pairing." For purposes of institution in this case, we did not expressly construe the term "paired wireless connection." Inst. Dec. 9–13.

Patent Owner proposes that the BRI of "paired connection" as

[9] The claim term is "cryptographically authenticating." Ex. 1003, 11:64 (claim 1); *see also id.* at 12:56–57, 13:49–50, 14:65 (claims 5, 8, 13) ("cryptographically authenticating").

> bidirectional communications link between devices which provides encrypted data exchange between the devices, and the communication link can be disconnected and reconnected without having to repeat pairing or authentication.

PO Resp. 14 (citing Ex. 2009 ¶¶ 46) (emphasis omitted).

Petitioner disagrees with the inclusion of "provides encrypted data exchange" and that the connection "can be disconnected and reconnected without having to repeat pairing and authentication." Reply 3. Petitioner does not include a proposal, alleging "claim construction . . . is irrelevant because the prior art still satisfies Cellspin's (incorrect) construction." *Id.*

Among other arguments based on the Specification, Patent Owner argues "Figure 1 of the '698 patent illustrates a method of utilizing a digital data capture device 201 in conjunction with a physically separate Bluetooth enabled mobile device 202." PO Resp. 11 (citing Ex. 1003, 3:34–41); *id*. at 11–12 (quoting Ex. 1003, 3:60–4:25), *see also id*. at 12 (citing Ex. 1003, 4:1–3, 6:23–38 (further describing Bluetooth pairing)). Relying on the disclosures from columns 3 and 6 of the '698 patent and the Bluetooth specification, Patent Owner argues "pairing involves association and an exchange of credentials to fulfilling the agreement in addition to merely communicating back and forth." *Id*. at 12 (citing Ex. 2009 ¶ 45), *id*. at 13–16 (citing Ex. 2018, 80, 135 (page numbers are to the footer of the exhibit); Ex. 2009 ¶ 46).

With respect to the "association" of Bluetooth pairing, Patent Owner cites to the Bluetooth specification (Ex. 2018[10]) description of "Association

[10] Bluetooth Specification, Version 2.1 (Bluetooth Special Interest Group (SIG) 2007). Petitioner's evidence includes excerpts from Specification of

Models." PO Resp. 14–15 (citing Ex. 2018, 80, 135 (§§ 5.4, 5.4.5, Fig. 1)). Patent Owner contends to a person of ordinary skill, "under broadest reasonable interpretation, pairing is the steps taken which result in a paired connection." *Id*. at 14–15 (citing Ex. 2009 ¶¶ 46–47) (emphasis omitted). Further, according to Patent Owner "a paired connection must be distinguished from mere authentication and from other methods of communications that involve exchanges of credentials but not pairing." *Id*. at 15 (citing Ex. 2009 ¶ 47) (emphasis omitted).

Petitioner argues Patent Owner's proposal requiring "encrypted data exchange" and the ability of a pairing once made to "be disconnected and reconnected without having to repeat pairing or authentication" are unclaimed limitations. Reply 3. According to Petitioner, the claimed connection is between two devices and none of the independent claims require "encrypted communications." *Id*. Petitioner cites the Bluetooth specifications that "make clear that paired connections do not necessarily require encrypted data exchange." *Id*. (citing Ex. 2018, 414, 416; Ex. 1024 ¶ 22); *see also id*. at 4–5 (regarding "encryption" in the context of construction of "cryptographically authenticating").

Petitioner also argues the prior art teaches "paired" even under Patent Owner's construction. Reply 3–4. Petitioner notes that Patent Owner contends its "construction is intended to encompass at least a paired Bluetooth connection." *Id*. (citing PO Resp. 14; Ex. 1023, 53:13–19).

We agree with Petitioner's arguments and reasoning and decline to adopt Patent Owner's construction. Patent Owner's construction requires

---

the Bluetooth System, Covered Core Package version 2.0 + EDR Current Master TOC (Bluetooth SIG 2004), Ex. 1017.

both "encrypted data exchange" and that "the communication link can be disconnected and reconnected without having to repeat pairing or authentication." Neither the claims nor the Specification mention "encrypted data exchange," or disconnection and reconnection, or equivalent language, in the context of pairing. Patent Owner cites to none. The Specification mentions "encryption" once, explaining that "various security, encryption and compression techniques" can be used "to enhance the overall user experience." Ex. 1003, 10:60–62. But that discussion does not relate to "paired connection" but rather describes "algorithms . . . [that] may be implemented in a computer readable medium." *Id*. at 10:16–19.

The '698 patent also expressly states that the invention is not limited to a Bluetooth embodiment. Ex. 1003, 9:45–47 ("The method and system disclosed herein is realized with, but not limited to Bluetooth communication protocol."). Moreover, dependent claims 17 and 18 recite that "the short-range paired wireless connection is one of a Bluetooth paired wireless connection, a Wi-Fi paired wireless connection, and other personal area wireless networking technologies that use pairing." Ex. 1003, 16:10–15.

Patent Owner's inclusion of "encrypted data exchange" is based on the Specification's description of initiating the Bluetooth pairing process by exchanging "a passkey . . . between the BT communication device 201a and the mobile device 202." PO Resp. 13; *see also* Ex. 1003, 4:3–7 (describing initiating the "pairing process" by exchanging a passkey). Patent Owner contends that "encrypted [] exchange" means "exchanging credentials and then we're going to compare our passkeys." Tr. 78:8–79:9.

That a passkey is disclosed as part of initiating a "paired connection" in the Specification does not mean that aspect of Bluetooth can be

incorporated into the construction of "paired connection" to support "encrypted data exchange" in Patent Owner's proposed construction, particularly when the Specification explicitly states that the invention is not limited to Bluetooth. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) ("[I]t is important not to import into a claim limitations that are not a part of the claim.").

The Foley Sur-Reply Declaration cites to the Bluetooth specification, not the claims or the Specification, for support that "pairing will only be completed if that last step of storing the link key for future connections is performed." *See* Ex. 2026 ¶ 44 (referring to Ex. 2006,[11] 696, Fig. 3.10). But this testimony relates to Bluetooth pairing, to which the claims are not limited.

Patent Owner contends its construction of "a paired connection <u>*provides*</u> for encrypted data exchange, not that it is required." Sur-Reply 3 (citing Ex. 2026 ¶ 13). Patent Owner adds that other wireless connection technologies, like WiFI Alliance and Zibgee, also "adopted the concept of pairing as defined by Bluetooth SIG." *Id.* at 3–4 (citing Ex. 2026 ¶ 14); *see also* Ex. 2003,[12] 6 (Zigbee disclosing the originator and recipient "store information about the other node . . . in its pairing table"). Patent Owner also notes that Petitioner's EOS Utility Software stores pairing information

[11] Specification of the Bluetooth System, Covered Core Package version 2.1 +EDR (July, 2007).
[12] Silicon Labs, UG103.10: RF4CA Fundamentals, Rev. 0.2 (Undated).

to "avoid having to reauthenticate/re-pair." *Id.* at 4 (citing Ex. 2027,[13] 4; 2028,[14] 1; Ex. 2026 ¶ 14).

Patent Owner does not persuasively explain how Dr. Foley's testimony, which in turn is based on the Bluetooth specification, supports Patent Owner's proposed construction of "paired wireless connection." As explained above, the Specification's discussion of Bluetooth falls far short of forming any basis for incorporating features of Bluetooth into the construction of "paired connection." The independent claims broadly recite "paired wireless connection" and are not limited to Bluetooth pairing.

Dr. Foley's testimony that other types of paired connections include encryption and store reconnection information also is not persuasive. *See* Ex. 2026 ¶¶ 13, 14; Sur-Reply 3 ("The concept of a paired connection, as established by the Bluetooth became known and adopted by certain other industry organizations creating wireless technology for device connections, such as WiFi Alliance and Zigbee Forum."). For example, the ZigBee standard relied on by Patent Owner undermines Patent Owner's argument. ZigBee states that "[p]airing is the process by which devices establish bidirectional links with other devices." Ex. 2003, 6.[15] ZigBee further states: "If a pairing is successful and if the originator and recipient both support security, a key exchange procedure is then attempted. The key exchange establishes a link key that is used to encrypt messages sent between the originator and recipient." *Id.* Thus, according to ZigBee, pairing occurs

---

[13] https://cpn.canon-europe.com/content/product/canon_software/inside_eos_utility_3_0.do (downloaded November 23, 2019).
[14] https://www.p4pictures.com/2014/08/wifi-pairing-eos-camera-utility-3/ (downloaded November 23, 2019).
[15] We refer to the exhibit page numbers added by Patent Owner.

first and then, if the devices support security, they establish a link key. The link key establishment to provide encryption occurs after pairing. Therefore, ZigBee does not support Patent Owner's contention that pairing itself includes encryption.

Furthermore, it is important to note that the dispute here is over the meaning of the claim term "paired wireless connection." Patent Owner argues that "a paired connection *provides for* encrypted data exchange" but that encrypted data exchange is not required. PO Sur-reply 3. Thus, Patent Owner acknowledges that an unencrypted paired connection is still a paired connection. Whether or not additional steps are taken to "provide[] encrypted data exchange" under Patent Owner's proposed construction (PO Resp. 14) does not change the fact that an unencrypted paired connection satisfies the requirement of a paired connection.

The Specification describes an embodiment in which a BT communication device on a "digital data capture device" (such as a digital camera) and a "mobile device" (such as a cellular phone) are "paired." Ex. 1001, 3:60–63. The Specification further explains—in connection with that embodiment—that "pairing" "involves establishing a connection between two BT devices that mutually agree to communicate with each other." *Id.* at 3:63–67. This description does not include a requirement of encrypted data exchange or disconnection and reconnection.

Patent Owner's reliance on extrinsic evidence in the form of the Bluetooth specification, and expert testimony which relies on the Bluetooth specification, improperly incorporates Bluetooth features, even though the Specification and claims show that the invention is not limited to Bluetooth. *See* Ex. 1003, 9:45–47, 16:10–15. Patent Owner also does not persuasively show that the common and ordinary understanding to one of ordinary skill in

the art of the term "paired wireless connection" at the time of the invention required both encrypted data exchange and that the communication link can be disconnected and reconnected without having to repeat pairing or authentication. Accordingly, we determine that "paired wireless connection" is not limited in the manner proposed by Patent Owner; rather, the phrase means "a wireless connection between two devices that mutually agree to communicate with each other."

2. "cryptographically authenticating"

The claim term "cryptographically authenticating" is sometimes referred here and by the parties as "cryptographic authentication," "cryptographically authenticated," or "authentication." In the Institution Decision we preliminarily determined "cryptographically authenticating" to mean "authenticating the identity of the cellular phone using some form of security or encryption, including by use of a shared passkey on the digital camera device and the cellular phone." Inst. Dec. 13. Petitioner agrees with the construction from the Institution Decision. Reply 4. Patent Owner argues that the broadest reasonable interpretation of "cryptographically authenticated" is "verified as a legitimate transmission, user, or system including by use of encryption and decryption involving an algorithm." PO Resp. 19 (citing Ex. 2009 ¶ 63) (emphasis omitted). Patent Owner's proposed construction is based on its proposed constructions for "cryptographic" and "authenticated." *Id.* at 16–19. As to the latter, Patent Owner argues that "authenticated" means "using a process of verifying the legitimacy of a transmission, user, or system." *Id.* at 19 (emphasis omitted) (citing Ex. 2009 ¶ 62). As to the former, Patent Owner argues that, "[t]o a [person of ordinary skill in the art], cryptography converts data into a format that is unreadable for an unauthorized user, allowing it to be transmitted

without unauthorized entities decoding it back into a readable format, thus compromising the data." *Id.* at 16 (citing Ex. 2009 ¶ 52).

The claims recite "wherein establishing the short-range paired wireless connection comprises, the digital camera device cryptographically authenticating identity of the cellular phone." Ex. 1003, claims 1, 5, 8, 13. Thus, the claims require cryptographic authentication of the identity of the cellular telephone, not encryption of transmissions, as Patent Owner's definition contemplates. *See* PO Resp. 19. As explained below, we find that the asserted prior art teaches authenticating the identity of the cellular telephone and that the authentication is cryptographic. Thus, we find it unnecessary to construe the term "cryptographically authenticating" to address the patentability issues before us. *See*, *e.g.*, *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e 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))).

3. "graphical user interface (GUI)"

The challenged claims require a cellular phone that includes a graphical user interface ("GUI"). Specifically, claim 1 recites "wherein the cellular phone is configured to provide a graphical user interface (GUI) in the cellular phone, wherein the graphical user interface (GUI) is for the received new-media file and to delete the created new media file." Ex. 1001, 12:22–26. Independent claims 5, 8, and 13 include similar limitations. *Id.* at 13:18–22, 14:22–25, 15:14–18. The '698 patent does not illustrate the GUI other than as a box labeled "graphical user interface" in Figure 2. *Id.* at Fig. 2 (element 203e). In the accompanying description, the '698 patent states that client application 203 on mobile device 202 includes "a graphical

user interface (GUI) 203e" but provides no details of how the GUI appears on the mobile device. *Id.* at 6:25–30. The '698 patent adds that a user may use the GUI to set preferences, such as selecting websites for publishing data and configuring timers. *Id.* at 6:58–7:3.

Even though the '698 patent does not depict the GUI, a patent application that the '698 patent incorporates by reference "in its entirety" (*id.* at 1:32–36)—U.S. patent application serial no. 11/901,802 ("the '802 application" (Ex. 2021))—depicts examples of GUIs in Figure 3, shown below.

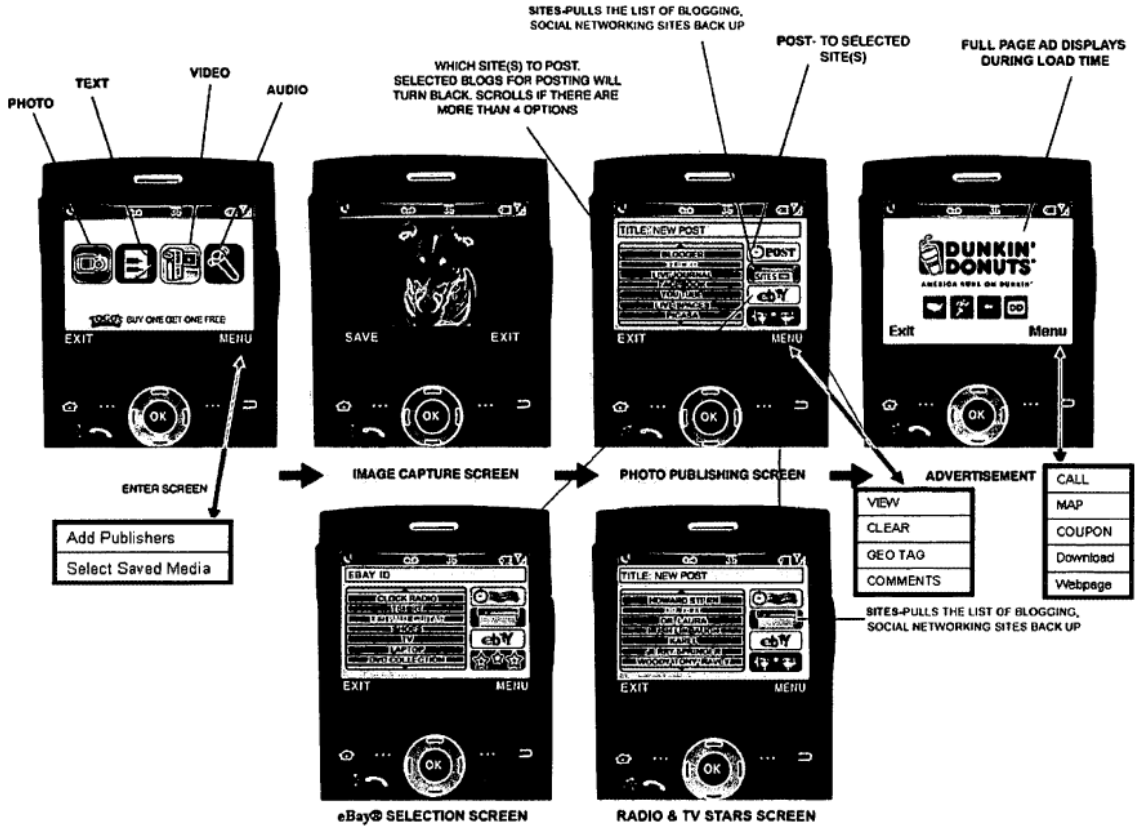


FIGURE 3

Figure 3 above illustrates the publishing of multimedia content using a client application on a mobile device. Ex. 2021, 14:19–21. The '802 application characterizes the client application as having a "graphical user

interface (GUI)" and describes various interactions with the screens illustrated in Figure 3 above. *Id.* at 8:13–15, 9:28–10:6, 14:21–26, 14:34–15:9, 15:24–26, 16:33–17:7.

Patent Owner proposes that "graphical user interface (GUI)" be construed as meaning

> an interface through which a user interacts with electronic devices such as computers, hand-held devices and other appliances. This interface uses icons, menus and other visual indicator (graphics) representations to display information and related user controls, unlike text-based interfaces, where data and commands are in text. GUI representations are manipulated by a pointing device such as a mouse, trackball, stylus, or a finger on a touch screen.

PO Resp. 19 (citing Ex. 2009 ¶ 65 (citing Ex. 2020[16])), 23. Patent Owner relies on the testimony of Dr. Foley, who adopts the above definition of "graphical user interface" from the website www.technopedia.com, which apparently was retrieved in July 2019. Ex. 2009 ¶ 65 (quoting Ex. 2020). Even though Dr. Foley does not explain why he did not rely on a contemporaneous definition of the claim term, he opines that the definition is consistent with the '698 patent specification, and specifically the incorporated-by-reference '802 application. *Id.* ¶ 65. Patent Owner asserts that the above definition is consistent with the Specification and, particularly with the incorporated written description of the '802 application. *Id.* at 19–20 (citing Ex. 2009 ¶ 65). Patent Owner alleges the '802 application shows a GUI that is shown in Figure 3 from an "enter screen." *Id.* (citing Ex. 2021,[17] 14:19–15:16, Fig. 3).

---

[16] https://www.techopedia.com/definition/5435/graphical-user-interface-gui.
[17] U.S. Patent Application No. 11/901,802 ("'802 application," Ex. 2021) is incorporated by reference in the Specification. Ex. 1003, 1:32–36.

Petitioner argues the proposed construction is not the broadest reasonable interpretation of GUI because it excludes "text-based interfaces" and requires a "pointing device." Reply 5. Further, Petitioner contends the Specification "depicts the GUI in Figure 2 literally as an empty box, and the specification says nothing about the GUI's appearance or how the user inputs commands to the GUI." *Id.* (citing Ex. 1003, 6:25–30, 6:58–66, 9:62–64, Fig. 2). Petitioner also cites to evidence of record from Patent Owner's expert, Dr. Foley, that it believes is consistent with the Specification and how a person of ordinary skill would have understood GUI. *Id.* (citing Ex. 1023, 59:16–64:1, 68:8–22).

We do not adopt Patent Owner's proposed construction. First, the '698 patent does not define the term "graphical user interface" or disavow some particular understanding of that term. Second, the '802 application illustrates examples of GUIs but does not state each of the disclosed features is a requirement of the GUI. Third, Patent Owner fails to provide contemporaneous evidence showing that, at the time of the claimed invention, a graphical user interface was understood as to *require* "icons, menus and other visual indicator (graphics) representations to display information and related user controls," as set forth in Patent Owner's proposed construction.

Dr. Foley's adoption of a 2019 definition from the technopedia website is not persuasive. Ex. 2009 ¶¶ 64–65. As discussed below in the context of the patentability analysis, the interfaces disclosed in Mashita and Onishi—such as buttons on the phone to select items displayed on the screen—teach the claimed graphical user interface. *See* Section III.G.4.e below.

B. Legal Standard for Obviousness

A patent claim is unpatentable as obvious if the differences between the claimed subject matter 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(a).

The ultimate determination of obviousness is a question of law, but that determination is based on underlying factual findings. The underlying factual findings include (1) "the scope and content of the prior art," (2) "differences between the prior art and the claims at issue," (3) "the level of ordinary skill in the pertinent art," and (4) the presence of secondary considerations of nonobviousness such "as commercial success, long felt but unsolved needs, failure of others," and unexpected results. *In re NuVasive, Inc.*, 842 F.3d 1376, 1381 (Fed. Cir. 2016) (citing *inter alia Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966)).

"To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016). Furthermore, in assessing the prior art, the Board must consider whether a person of ordinary skill would have been motivated to combine the prior art to achieve the claimed invention. *NuVasive*, 842 F.3d at 1381. As the Federal Circuit stated, in quoting from the Supreme Court's decision in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007),

> "because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries

> almost of necessity will be combinations of what, in some sense, is already known," "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does."

Personal Web Technologies, LLC v. Apple, Inc., 848 F.3d 987, 991–92 (Fed. Cir. 2017).

C. Level of Ordinary Skill in the Art

Petitioner proposes a person of ordinary skill in the art

> at the relevant time would have at least a bachelor's degree in electrical engineering or computer science, or an equivalent degree, and at least two years of industry experience with software development and/or electronic system design. More education can supplement relevant experience and vice versa.

Pet. 9 (citing Ex. 1001 ¶ 24); Inst. Dec. 14–15 (adopting similar proposed level of ordinary skill). Petitioner then lists "relevant facets of the state of the art" of which a person of ordinary skill would have been aware, including generally digital cameras, Bluetooth, cellular telephones, and Internet photo-sharing websites. Pet. 9 (citing Ex. 1001 ¶¶ 54, 130–131). Petitioner adds details of each of the listed technologies to the level of skill. *Id.*

Patent Owner agrees with both Petitioner's proposed level of skill and that from the Institution Decision. PO Resp. 10. Based on the full trial record, we adopt the determination from the Institution Decision. *Id.* Thus, we determine that a person of ordinary skill in the art would have had a bachelor's degree in electrical engineering or computer science, or an equivalent degree, and two years of industry experience with software development, electronic system design, digital camera technology, and/or wireless communications. Inst. Dec. 15.

D. Claims 1, 3–5, 7, 8, 10–13, and 15 as Obvious over Mashita, Onishi, and Hiraishi

Petitioner asserts that claims 1, 3–5, 7, 8, 10–13, and 15 of the '698 patent would have been unpatentable as obvious over Mashita, Onishi, and Hiraishi. Pet. 8, 25–72. Petitioner's arguments are supported by the Strawn Declaration. Ex. 1001 ¶¶ 62–248.

Patent Owner disputes the showing made as to common limitations C, D, G, H, J, and K of independent claims 1, 5, 8, and 13. PO Resp. 3 (Table of Contents), 32–47. Patent Owner also asserts that there would have been a lack of motivation to combine Mashita, Onishi, and Hiraishi. *Id*. at 49–50. Patent Owner separately disputes claims 5 and 8. *Id*. at 50–52. Patent Owner also separately contests dependent claim 6, which Petitioner does not challenge and we do not analyze. *Id*. at 52; *see also* Pet. 6 (identifying challenged claims), 8 (same). Patent Owner's arguments are supported by the Foley Declaration and Sur-reply Declaration. Ex. 2009 ¶¶ 98–157; Ex. 2026 ¶¶ 11–119.

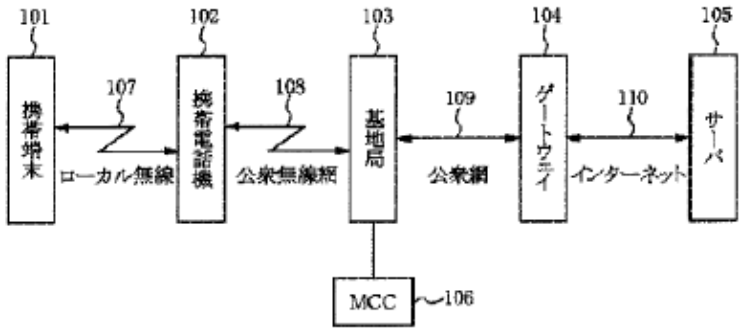
1. Mashita (Ex. 1006)

Mashita discloses a communication device with a local wireless communication function, such as a digital camera or cellular phone, connected to an information processing device with a public network connection function. Ex. 1006 ¶¶ 1, 8. Mashita notes that the "[c]onventional [a]rt" includes communication devices like digital cameras and cellular phones "with a built-in short-range wireless communication device typified by Bluetooth." *Id*. ¶ 2. Mashita explains that conventional digital cameras connect to the Internet network by using an "other communication device (cellular phone)" as a modem to transfer file data. *Id*. ¶ 6. But this method, according to Mashita, increases the digital camera's

cost because it requires the digital camera to "include a protocol such as PPP, TCP/IP, or HTTP and an application program." *Id.*

Figure 1 of Mashita is reproduced below.

【図 1】



"Figure 1 illustrates a general configuration of a network system in which a portable device such as a digital camera or a Personal Data Assistance (PDA) communicates with a server on the Internet via a cellular phone." Ex. 1006 ¶ 15. Figure 1 shows the portable device 101 (hereafter referred to as digital camera) and cellular phone 102 can communicate through a local wireless connection, such as Bluetooth connection 107. *Id.* ¶¶ 16–17. Base station 103 converts public wireless network 108 into public network 109 with wired connection. *Id.* ¶ 18. Gateway 104 connects the public network to Internet 110. *Id.* ¶ 19.

Still referring to Figure 1, the cellular phone downloads and stores in memory a file transfer program from server 105. Ex. 1006 ¶ 61. This configuration allows the digital camera to pass file data (e.g., image data) to cellular phone 102, which then passes the file data to a designated destination address. *Id.* ¶¶ 15–16, 62–68. An e-mail with a selected image file is "transferred to the server 105 with the destination address via the base station 103, the gateway 104, and the Internet 110." *Id.* ¶ 78. Thus, the

digital camera is able to transfer file data to server 105 through a local wireless connection but without a public network connection and without implementing HTTP or another online data transfer protocol in the communication device, i.e., a digital camera. *Id.* ¶ 8.

The process is shown in Figure 7, which is reproduced below.

【図 7】

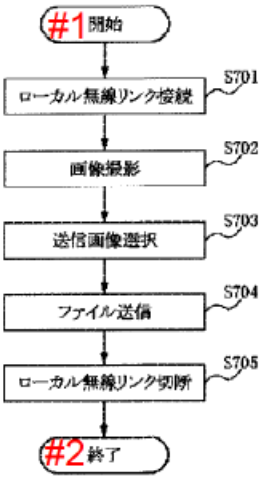


Figure 7 is "a flowchart illustrating an image file transmission procedure executed by the digital camera." Ex. 1006, pp. 38, 42. At step S701 (Connect Local Wireless Link), "[i]n response to a connection request transmitted from the cellular phone 102, the digital camera 101 connects a local wireless link via Bluetooth communication." *Id.* ¶ 75, p. 42. At step S702 (Take Image), the digital camera takes an image and the image is stored in image memory. *Id.* ¶ 76, p. 42. The image is taken after establishing the wireless link at step 701 in response to the user's operation at step S702. *Id.* ¶ 80, p. 42.

When the cellular phone downloads the file transfer program from the server, an "authentication process is executed between the server" and the digital camera via the cellular phone. Ex. 1006 ¶ 81. The authentication

process automatically selects the file transfer program compatible with the model of the digital camera. *Id.* Input operations such as a destination address of the image file are executed by the digital camera rather than by the cellular phone. *Id.*

2. Onishi (Ex. 1008)

Onishi describes "an inexpensive and consumed power-saving digital camera device" that "connect[s] with a portable terminal through . . . wireless communication means and transfer[s] the image to the portable terminal to display the image." Ex. 1008 ¶ 4. The "portable terminal" can be a portable phone, and the "wireless communication means" can be a Bluetooth connection. *Id.* ¶¶ 6, 41, 54.

Onishi discloses that it is possible to operate the digital camera device by wireless communication "using the portable terminal device 150 [i.e., cellular phone] as . . . a remote controller." *Id.* ¶ 65. This includes erasing an image file from the digital camera's memory via user input to the phone. *Id.*; *see also id.* ¶¶ 51 ("the displayed image is erased from the memory 41" following user input to the phone), 9 ("[U]sing the portable terminal device, . . . it is possible to erase an unnecessary image file from the memory of the digital camera device.").

3. Hiraishi (Ex. 1010)

Hiraishi concerns transmission of images (and other multimedia data) to the Internet. Ex. 1010 ¶ 2. Hiraishi describes as "[c]onventional [a]rt" how "it has become possible to share and provide information in a multimedia environment in which all data including text data, image data, and voice data are digitalized, giving birth to many information providing services using the Internet." *Id.* One example is a "photo site," which allows customers to view image data the customers acquired using a digital

camera. *Id.* Hiraishi's inventions are designed to address various problems that may arise with such photo sites when collaborating with "print sites," which provide printing services. *Id.* ¶¶ 3–8.

Hiraishi discloses that "PC 102" (which Hiraishi states can be a "mobile phone" instead of a PC) (shown in Figure 1) can "automatically transfer[]" selected image data to the photo site, and that "transfer is executed based on a protocol available on the Internet 104, such as HTTP or FTP." Ex. 1010 ¶¶ 21, 26; Fig. 1.

4. Analysis of Independent Claims 1 and 13

As noted above, Patent Owner uses the Common Claim Limitations format of the Petition. *See supra* n.4. Unless otherwise indicated, we analyze the Common Claim Limitations of Claim 1 as illustrative for claims 1, 5, 8, and 13.

Claim 13 includes limitation A1 which recites "a non-transitory computer-readable medium containing machine executable instructions that, when executed by a processor . . . cause the processor to perform a method." *See* Pet. 76. The "method" of claim 13 is substantially the same as recited in method claim 1. *Id.* at 69, 76–83 (Common Claim Limitations). To the extent limitation A1 is limiting, Petitioner alleges, and we find, that Mashita discloses a "a non-transitory computer-readable medium" by teaching program codes stored in a "floppy (R) disk, a hard disk . . . a CD-ROM, . . . a magnetic tape, and a nonvolatile memory card." *Id.* at 69–70 (citing Ex. 1006 ¶¶ 128, 130).

To the extent claims 5 and 8 differ from claim 1, they are separately addressed below.

a. "establishing a short-range paired wireless connection between the digital camera device and the cellular phone, wherein establishing the

short-range paired wireless connection comprises, the digital camera device cryptographically authenticating identity of the cellular phone" (Limitation C)

Patent Owner specifically disputes two elements of Limitation C, "paired wireless connection" and "cryptographically authenticating." PO Resp. 32–40. Some of the arguments as to the two elements of Limitation C are intertwined in that they relate to both elements.

1) "paired wireless connection"

Patent Owner first disputes that a sufficient showing has been made regarding the recited "paired wireless connection" of Limitation C. PO Resp. 32–38. We construe "paired wireless connection" in Section III.A.1 above.

Petitioner asserts that Bluetooth pairing is cited in the '698 patent as an example of "short-range paired wireless communication" between a digital camera and a cell phone. Pet. 39 (citing Ex. 1003, 3:60–65, 2:5–9, 3:19–22). Petitioner also points out that dependent claims 17–20 of the '698 patent recite "'Bluetooth paired wireless connection' as one example of the 'short-range paired wireless connection' in the independent claims." *Id.*

For the pairing aspect of Limitation C, Petitioner cites to Mashita as teaching a digital camera and a cellular phone that each have an interface for establishing a link by local wireless connection. Pet. 34 (citing Ex. 1006 ¶¶ 16–17, 51). Relying on the Strawn Declaration, Petitioner argues a person of ordinary skill "would understand that 'paired' or pairing refers to the establishment of the Bluetooth connection between the two devices." *Id.* (citing Ex. 1001 ¶¶ 76–78, 80–81).

Petitioner cites to the '698 patent as supporting what a person of ordinary skill would have understood, i.e., a "paired" connection and

"cryptographically authenticating" result from establishing a Bluetooth connection between devices. Pet. 41 (citing Ex. 1003, 4:3–7). The '698 patent discloses,

> [T]he BT communication device 201*a* will send the BT communication device name of a predefined number of characters . . . and the BT address to the mobile device 202. The BT communication device 201*a* then prompts the user of the mobile device 202 to enter the passkey code . . . to accept pairing with the BT communication device 201*a* . . . .

Ex. 1003, 4:14–21, *quoted in* Pet. 41–42. Relying on the Strawn Declaration, Petitioner argues the passkey code described above in lines 14 through 21 of column 4 of the '698 patent is the same as Mashita's process of a user entering a PIN in the devices and both result in essentially the same "cryptographically authenticating"/"pairing" process. Pet. 42 (citing Ex. 1001 ¶ 85); *see also* Reply 7–8 (table comparing Mashita/Ex. 1006 ¶ 51 to '698 patent/Ex. 1003, 4:3–25).

Patent Owner argues that a person of ordinary skill in the art "would also understand that not all Bluetooth connections are paired, pairing is optional in Bluetooth." PO Resp. 33 (citing Ex. 2009 ¶ 101) (emphasis omitted). According to Patent Owner, the Bluetooth specification (Ex. 2018[18]) "use case for transferring pictures did not involve pairing." *Id.* at 33–34 (citing Ex. 2009 ¶ 101; Ex. 2018, 691, Fig. 3.1 (annotated with red circles around Steps 7a ("Optional Pairing") and Step 7b ("Optional Authentication")).

Patent Owner contends the "best argument" of the Strawn Declaration is "that Mashita discloses a device that might be capable of establishing a

[18] Bluetooth Specification, Version 2.1 (Bluetooth SIG 2007).

paired wireless connection between the digital camera device and the cellular phone if its use of Bluetooth involved pairing." PO Resp. 34 (citing Ex. 2009 ¶ 102); *see also* Ex. 1001 ¶ 76 (Strawn Declaration testimony supporting the "best argument"). As analyzed below, Patent Owner seeks to refute Petitioner's "best argument" by distinguishing Mashita's apparatus disclosure as opposed to what is "[n]otably . . . a method claim." PO Resp. 34–35 (citing Ex. 2009 ¶ 102). Patent Owner also disputes the Petitioner's argument, based on the Strawn Declaration, that inputting a PIN into both the cellular phone and the digital camera is used to authenticate the connection, and Patent Owner argues that authentication of a connection is different from pairing and "does <u>not</u> necessarily result in the connection becoming paired." *Id*. at 35 (citing Ex. 2009 ¶ 104) (additional emphasis omitted).

Patent Owner argues "Mashita does not disclose paired Bluetooth connections." PO Resp. 36–37 (citing Ex. 1001 ¶¶ 76–78, 80–81; Ex. 1006 ¶¶ 2, 16–17, 51, 75, 127; Ex. 2009 ¶ 110). Patent Owner argues the Bluetooth Basic Imaging Profile ("BIP," Ex. 1020/2023[19]) describes that a mobile phone can control a digital camera's shutter to take pictures and that "the mobile phone can browse and retrieve images stored on the digital camera." *Id*. (citing Ex. 2009 ¶¶ 112–113; *see also* Ex. 1020/2023, 13–14). According to Patent Owner BIP "does not require a paired Bluetooth connection" for either of these scenarios. *Id*. at 37–38 (citing Ex. 2009 ¶¶ 112–113) (emphasis omitted). Patent Owner's argument relies on the premise that "not all Bluetooth connections are paired, pairing is optional in

[19] Bluetooth Imaging Profile, Interoperability Specification (Bluetooth SIG 2003).

Bluetooth, and the Bluetooth use case for transferring pictures and the Bluetooth use case for transferring pictures using Image Pull and Image Push that are most relevant to '698 did not involve pairing." *Id*. at 37 (citing Ex. 2009 ¶ 110). In principal part, Patent Owner contends "Bluetooth allows for an *optional* short-range paired wireless connection." *Id*. (citing Ex. 2009 ¶ 106) (emphasis added); *see also id*. at 37 (citing Ex. 2009 ¶ 111) (asserting that "with Bluetooth, one may authenticate a device without pairing") (emphasis omitted).

Patent Owner argues that Petitioner mischaracterizes Mashita's PIN as a passkey and that Mashita does not disclose using "a cryptographically created entity . . . derived from any PIN or passkey." PO Sur-reply 7. Patent Owner also argues that Mashita describes a system in which the wireless connection is terminated after every transaction. *Id*. at 15. Patent Owner thus appears to rely on its proposed construction of "paired wireless connection" to distinguish Mashita.

We are not persuaded by Patent Owner's arguments. We determine in Section III.A.1 above that "paired wireless connection" as used in the claims of the '698 patent means "a wireless connection between two devices that mutually agree to communicate with each other." Because Patent Owner's arguments are based on its rejected construction of "paired wireless connection," they are not persuasive. We find that Mashita teaches a "paired wireless connection," as we construe the term. *See* Pet. 38 (citing Ex. 1006 ¶¶ 16–17, 51). Mashita teaches two communication devices, a digital camera and a cellular phone, that each have an interface for "local wireless connection I/F for local wireless communication (Bluetooth communication)." Ex. 1006 ¶ 16; *see also id*. ¶ 15 (describing network of Figure 1 as a digital camera communicating over the Internet with a cellular

phone). We find that the teaching of two communication devices that communicate with each other over a "local wireless connection" is a mutual agreement between the two devices to communicate. We also find that Mashita teaches "[a] cellular phone 102 and [a] digital camera 101" for which "the physical addresses 210 and 311 of both the cellular phone 102 and the digital camera 101 are used to execute an authentication process for local wireless connection." *Id.* ¶ 51; *see also* Section III.D.4.a.(2) below (analyzing "cryptographically authenticating"). Petitioner relies on the preceding disclosures of Mashita to show the recited "paired wireless connection." Pet. 37–42. We are persuaded by Petitioner's showing.

Petitioner also cites to Onishi and Hiraishi as teaching a paired connection. Pet. 34–35. Onishi discloses a digital camera can be connected with a "portable terminal device," which is a "portable phone or the like," by wireless communication. Ex. 1008 ¶ 6, 40; *see also* Pet. 34 (showing based upon Onishi) (citing Ex. 1008 ¶¶ 40, 54). Similarly, Hiraishi discloses a digital camera, described as an "image input device 101," that transfers the image data to a storage device over an interface, which may be "a wireless interface, represented by IrDA [Infrared Data Association communication protocol] and Bluetooth." Ex. 1010 ¶ 17; *see also* Pet. 34–35 (showing based upon Hiraishi) (citing Ex. 1010 ¶¶ 17, 20–21; Ex. 1001 ¶¶ 72–73). The Strawn Declaration testimony also supports that the combination of Mashita, Onishi, and Hiraishi teaches establishing a short-range paired wireless connection between the digital camera device and the cellular phone, via Bluetooth. Ex. 1001 ¶¶ 76–78.

Patent Owner also argues that Mashita discloses a *device* and not the *method* of claim 1. PO Resp. 34. Patent Owner argues Onishi does not disclose the *method* of pairing "a short-range paired wireless connection

between the digital camera device and the cellular phone." PO Resp. 36 (citing Ex. 2009 ¶ 107).

Patent Owner's argument is not persuasive because Mashita discloses that, through its authentication process, "[t]he cellular phone 102 thus establishes a link through local wireless connection with the digital camera 101 (step S501)." Ex. 1006 ¶ 51. Mashita, therefore, expressly discloses a method step of "establishing a short-range paired wireless connection." Onishi also discloses a process, not merely a device, by disclosing the following: "Subsequently, the portable terminal device 150 and the digital camera device 100 are connected wirelessly (step 703). The wireless connection can be performed using Bluetooth (Blue Tooth), a portable phone line or the like." Ex. 1008 ¶ 54, *cited in* Pet. 39. We find Petitioner has persuasively shown that the "paired wireless connection" element of Limitation C is taught by Mashita or Mashita along with the knowledge of a person of ordinary skill in the art regarding the establishment of the Bluetooth connection between two devices.

2) "cryptographically authenticating"

Patent Owner also disputes that a sufficient showing has been made regarding "cryptographically authenticating" of Limitation C. PO Resp. 38–40.

For the cryptographic authentication aspect of Limitation C, Petitioner argues "Mashita discloses that '[a] physical address (a 48-bit address for identification of the cellular phone 102 in Bluetooth communication) 311 is recorded in the local wireless unit 309 [of the cellular phone].'" Pet. 39 (alterations in original) (citing Ex. 1006 ¶ 4); *see also id.* at 39–40 (citing Ex. 1006 ¶ 30 ("similar configuration for identification of the digital camera in Bluetooth communication")). Petitioner argues the following: "Mashita

discloses that a user inputs an identical Personal Identification Number ('PIN') code into both the cellular phone and the digital camera. Then the physical addresses of both devices are used to execute an authentication process for the Bluetooth connection." Pet. 40 (citing Ex. 1006 ¶ 51; Ex. 1001 ¶ 83).

Petitioner argues Mashita's authentication process is cryptographic and that, in addition to the express teaching of Mashita, a person of ordinary skill in the art "would understand that the Bluetooth specification at the time provided for cryptographic authentication." Pet. 41 (citing Ex. 1001 ¶ 87; Ex. 1017, 27, 29 (§ 4.2), 50–51 (§ 3.2) (page numbers are to the footer of the exhibit)). Petitioner argues, "[t]hus, by explicitly disclosing a Bluetooth connection, Mashita, Onishi, and Hiraishi, each reference discloses or at least renders obvious to a [person of ordinary skill] the 'cryptographically authenticating' portion of this limitation." *Id.*

We agree with Petitioner that Mashita teaches authentication using the PIN in the following disclosure: "[A]n identical Personal Identification Number (PIN) code is input to both the cellular phone 102 and the digital camera 101, and the physical addresses 210 and 311 of both the cellular phone 102 and the digital camera 101 are used to execute an authentication process for local wireless connection." Ex. 1006 ¶ 51; *see also* Ex. 1006 ¶¶ 30 (disclosing that address 210 is a Bluetooth address of the camera), 40 (disclosing that address 311 is the Bluetooth address of the phone). Patent Owner acknowledges as much by arguing that a person of ordinary skill in the art "would understand that the PIN in Mashita is used to authenticate the connection." PO Resp. 35 (emphasis omitted) (citing Ex. 2009 ¶ 104); *see also* PO Resp. 39 (arguing that "the PIN of Mashita . . . is only used for connection authentication"). Patent Owner, however, argues that the

Bluetooth specification distinguishes PINs and passkeys and, therefore, that the use of a PIN does not show "use of a shared passkey on the digital camera device and the cellular phone," according to Petitioner's proposed construction for "cryptographically authenticating." PO Resp. 38–39 (citing Pet. 40). Regardless of whether a PIN is the same as a passkey, the issue is whether Mashita's disclosure of Bluetooth authentication using a PIN teaches "cryptographically authenticating." We find that it does.

As discussed above, Mashita discloses using the PIN and the Bluetooth addresses of the camera and the phone "to execute an authentication process for local wireless connection." Ex. 1006 ¶ 51. Patent Owner argues that Petitioner's "assertion that Mashita's PIN cryptographic[ally] authenticates is, at most, based upon *speculation* that one might use the PIN to generate encryption keys." PO Sur-reply 4 (citing Ex. 2026 ¶ 21). We do not agree with Patent Owner that Petitioner's assertion is based on speculation. Rather, the evidence of record shows that Bluetooth authentication using a PIN, as discussed in Mashita, was cryptographic. Patent Owner acknowledges that "[t]he PIN is entered into each device and serves as one of multiple inputs into a key generation algorithm which is utilized in a challenge/response procedure." PO Sur-reply 10 (citing Ex. 2026 ¶ 40). Patent Owner cites a Bluetooth specification that states that "[t]his PIN code will be requested on both sides of the connection, and authentication performed based on this PIN code." Ex. 2006, 866, *cited in* PO Sur-reply 11.[20] This Bluetooth specification discloses an algorithm to generate an initialization key in which the "PIN is

[20] Patent Owner cites page 696 of the Specification, which corresponds to exhibit page number 866 as labeled by Patent Owner in the exhibit.

augmented with the BD_ADDR," and it discloses that "[t]his key generating algorithm again exploits the *cryptographic function*." Ex. 2006, 1055–56, *cited in* Pet. Reply 19.[21] As Petitioner correctly points out, "Mashita likewise discloses authentication using a PIN and the devices' Bluetooth physical addresses." Pet. Reply 19 (citing Ex. 1006 ¶¶ 30, 40, 51; Ex. 1024 ¶¶ 15–16). Based on this evidence, we find that Mashita's disclosure of Bluetooth authentication using a PIN and the Bluetooth addresses of the devices teaches cryptographic authentication.

We find Petitioner has persuasively shown the "cryptographically authenticating" element of Limitation C of claim 1 is taught by Mashita or Mashita along with the knowledge of a person of ordinary skill in the art regarding the establishment of the Bluetooth connection between two devices.

b. Limitations D and H

Petitioner contends that Mashita and Onishi teach Limitation D (Pet. 43–49) and that Mashita teaches Limitation H (Pet. 57–58). Patent Owner argues Limitation D and H are "not met for the same reasons noted with respect to Limitation C is not met, namely that the cited references do not disclose or render obvious short-range <u>*paired*</u> wireless connections." PO Resp. 40 (citing Ex. 2009 ¶ 118) (Limitation D), 41–42 (citing Ex. 2009 ¶ 125) (Limitation H). Patent Owner's arguments regarding Limitation C were addressed above and no additional arguments are presented. *See* Section III.D.4(1) above.

[21] Petitioner cites Exhibit 2018, which is the same document as Exhibit 2006.

We find Petitioner has persuasively shown Limitations D and H of claim 1.

c. "receiving a data transfer request initiated by a mobile software application on the cellular phone, over the established short-range paired wireless connection" (Limitation G)

Petitioner argues that the combination of Mashita and Hiraishi discloses Limitation G. Pet. 52. Petitioner argues "Mashita discloses that the cellular phone downloads a file transfer program 403 from a server 105, and then stores the program in its application memory 304; accordingly, file transfer program 403 is a 'mobile software application on the cellular phone.'" *Id*. (citing Ex. 1006 ¶ 55; Ex. 1001 ¶¶ 101–102).

Petitioner acknowledges that Mashita does not "expressly disclose" that the cellular phone requests a data transfer "after the new-media file was created." Pet. 52. Petitioner relies on Hiraishi to teach a personal computer with dedicated software that can request a data transfer of previously captured image data. *Id*. at 53 (citing Ex. 1010 ¶ 17). Petitioner also cites to Hiraishi's Figure 1 showing "image input device 101," "information processing device" (cellular phone) 102 and software. *Id*. at 53–54 (citing Ex. 1010 ¶¶ 15–16, 21, Fig. 1).

Supported by the Strawn Declaration, Petitioner relies on Hiraishi's teaching that the cellular phone initiates data transfer request specifically after the new-media file was created. Pet. 54 (citing Ex. 1010 ¶ 17; Ex. 1001 ¶¶ 103, 111). Petitioner further argues Mashita teaches transfer of a new-media file which a person of ordinary skill would have modified by Hiraishi's teaching ofinitiating data transfer of a new-media file rather than a "collective[]" transfer as taught by Hiraishi. *Id*. at 54 (citing Ex. 1001 ¶ 104; Ex. 1010 ¶ 17) (alteration in original). According to Petitioner, a person of

ordinary skill could incorporate Hiraishi and Mashita to "configure the digital camera to respond to the data transfer request by transferring the newly created image files to the cellular phone." *Id*. at 54–55 (citing Ex. 1010 ¶ 17; Ex. 1006 ¶ 65; Ex. 1001 ¶ 104).Petitioner argues a person of ordinary skill would have been motivated to combine Mashita's digital camera with a cellular phone to gain access to the Internet to transfer image data using a local wireless connection to an Internet-enabled cellular phone. Pet. 55 (citing Ex. 1006 ¶¶ 8–9). Petitioner contends "Mashita's file transfer program is already configured to send a request to the digital camera to establish the local wireless link between the digital camera and the cellular phone." *Id*. (citing Ex. 1006 ¶¶ 61–62, 75). Relying on the Strawn Declaration, Petitioner asserts "it would not be novel or difficult to configure the program to send a data transfer request over the established local wireless link." *Id*. (citing Ex. 1001 ¶¶ 105–106, 108). Petitioner argues "the digital camera can respond to the request by sending the newly created image files to the cellular phone without having to wait for the user's instruction to transfer the image files." *Id*. at 56–57 (citing Ex. 1001 ¶¶ 105–106, 108).

Patent Owner argues "Limitation [G] is not met for the same reasons noted with respect to Limitation C is not met." PO Resp. 40. This argument alone is not persuasive for the reasons set forth in connection with Limitation C. *See* Section III.D.4.a(1) above.

Patent Owner also argues "Limitation G is not met because Mashita does not have any state machine where it waits for phone to send an image transfer request." PO Resp. 40 (citing Ex. 2009 ¶ 120) (emphasis omitted). Patent Owner argues the combination of Mashita and Hiraishi "would not work because if a [person of ordinary skill] starts with Mashita and then

combines it with Hiraishi, it would require Mashita to have at least one state where the digital camera keeps the Bluetooth connection active or moved into a Bluetooth low power mode such as sniff." *Id*. (citing Ex. 2009 ¶ 86 (Patent Owner omitted the paragraph number). Patent Owner alleges Mashita's "state machine connections are terminating as soon as the transaction is done" and are not active. *Id*. (citing Ex. 2009 ¶ [86]). Patent Owner argues "waiting is required for the combination to work, because . . . there is no specified time limit on when the mobile user will request the image." *Id*. at 40–41 (citing Ex. 2009 ¶ [86]) (emphasis omitted). Patent Owner argues the combination would not work because the connection is terminated in Mashita and the Bluetooth specification maintains a connection between devices. *Id*. at 41 (citing Ex. 2009 ¶ 121 (citing Ex. 2018, 161 (Fig. 8.5 showing a "CONNECTION State" and a "PARK State"))).

Petitioner argues Mashita does not terminate the Bluetooth connection after every transaction. Reply 15. Specifically, Petitioner argues Figures 6 and 7 of Mashita "describe the same process of image transfer from the perspective of the cellular phone and digital camera, respectively." *Id*. at 15–16 (citing Ex. 1023, 100:1–102:6; Ex. 1006 ¶ 59; Ex. 1024 ¶ 49). Petitioner also contends there is no time component to the claims nor do the claims require pairing to continue for some indefinite time in the future. *See id*. at 23 (citing Ex. 1023, 98:23–25, 99:2–4, 99:10–13, 99:15–17).

Patent Owner argues that "[w]henever the request for new-media is sent from the cellular phone to the digital camera, it must arrive over the previously established paired short-range wireless connection." PO Sur-reply 20. Patent Owner points out that the flow chart, the "state machine," of Figure 7 of Mashita does not "*not* have a step, or state, to receive

requests." *Id*. at 21 (citing Ex. 2026 ¶ 89; Ex. 1006, Fig. 7 annotated (red notation "NO Request from the mobile for the image" and "NO Limitation G") (additional emphasis omitted)). Patent Owner argues Mashita teaches "image push" from the from the digital camera while Hiraishi teaches "image pull" from the PC or cellular phone to the camera and any attempt to combine the two would "require a significant changes to the image transfer procedure" of Mashita. *Id*. (citing Ex. 2026 ¶ 92). For example, Patent Owner contends Mashita would have to "add states like HOLD, Park or Sniff mode, so as to not immediately send the acquired image and also to add those new steps and states to not immediately terminate the local wireless link immediately after an image was transferred to enable an image delete request to be received." *Id*. (citing Ex. 2026 ¶ 94) (emphasis omitted).

We find that Hiraishi teaches transferring a new-media file already stored on the digital camera in response to a request. Ex. 1010 ¶ 17 ("Upon receiving a command from an OS or dedicated software installed in the PC 102, the image input device 101 collectively transfers the pieces of image data stored in an information storage device of the image input device 101."). We also agree with Petitioner and find that "it is clear [from the disclosure in Hiraishi] that the image data [is] created in the digital camera device before receiving the data transfer request." Pet. 54 (citing Ex. 1010 ¶ 17; Ex. 1001 ¶¶ 103, 111).

We disagree that Mashita teaches terminating the connection after each transaction. We find that S610, a decision block, of Figure 6 shows the cellular phone returns to its reception mode rather than terminating the connection. *See* Reply 16–17 (citing Ex. 1006, Fig. 6 (S610); Ex. 1023, 103:7–104:21). For this reason we also disagree with Patent Owner's argument that the combination of Mashita and Hiraishi would not work

because the connection is terminated in Mashita and the Bluetooth specification maintains a connection between devices. *See* PO Resp. 41.

We also find a person of ordinary skill would have been motivated to combine Hiraishi with Mashita. As discussed above, one reason for the combination is to "configure the digital camera to respond to the data transfer request by transferring the newly created image files to the cellular phone." *See* Pet. 54–54 (citing Ex. 1010 ¶ 17; Ex. 1006 ¶ 65; Ex. 1001 ¶ 104). Mashita's digital camera lacks Internet access but can transfer image data to a server on the Internet using a local wireless connection to an Internet-enabled cellular phone. *See* Ex. 1006 ¶¶ 8–9. As Petitioner correctly point out, "Mashita's file transfer program is already configured to send a request to the digital camera to establish the local wireless link between the digital camera and the cellular phone." Pet. 55 (citing Ex. 1006 ¶¶ 61–62, 75). We are persuaded that Mashita's objective of transferring data from the camera to a network via a phone "would be more easily and effectively accomplished if the digital camera transfers the newly created image files to the cellular phone in response to the cellular phone's request for those files." Pet. 55 (citing Ex. 1001 ¶ 105). In particular, we credit Dr. Strawn's testimony that, "[r]ather than having the cellular phone wait for the digital camera to transfer user selected image files, a [person of ordinary skill in the art] would have recognized the simplicity and effectiveness of configuring the digital camera device to transfer newly created image files to the cellular phone in response to the cellular phone's request." Ex. 1001 ¶ 105.

We find Petitioner has persuasively shown Limitation G of claim 1 is taught by Mashita and Hiraishi.

d. "wherein the cellular phone is configured to use HTTP to upload the received new-media file along with user information to a user media publishing website." (Limitation J)

In connection with Limitation J, Petitioner asserts a person of ordinary skill would have been motivated to modify Mashita's disclosures to use HTTP rather than e-mail or FTP to upload the received new-media to the Internet because Hiraishi teaches that "transfer is executed based on a protocol available on the Internet 104, such as HTTP or FTP." Pet. 63–64 (citing Ex. 1010 ¶ 26; Ex. 1001 ¶¶ 125–126) (emphasis omitted). Additional reasons are cited, including that existing cell phone products upload to online sharing services using HTTP. Pet. 64–66 (citing Ex. 1001 ¶ 126; Ex. 1014,[22] 61, 64–65; Ex. 1016, 33–34). Petitioner argues a person of ordinary skill would have "expected success in making this change." *Id.* at 64–65 (citing Ex. 1001 ¶ 125). Petitioner also argues the modification from FTP to HTTP is a simple substitution with predictable results. *Id.* (citing Ex. 1001 ¶¶ 125–126; Ex. 1003, 10:9–13; *KSR*, 550 U.S. at 415–421).

Patent Owner argues Mashita teaches away from using HTTP for image upload via cellular phone because "Mashita clearly states that doing so 'disadvantageously needs to include a protocol such as PPP, TCP/IP, or HTTP and an application program, increasing the cost of the digital camera.'" PO Resp. 49 (quoting Ex. 1006 ¶ 6; Ex. 2009 ¶ 88) (emphasis omitted). Patent Owner argues using HTTP would also create increased complexity and drive costs up. *Id.* at 30, 49–50. Instead of HTTP, Patent Owner argues Mashita taught to use email attachments or FTP to upload images to web sites. *Id.* at 30, 50 (citing Ex. 1006 ¶ 82).

---

[22] User Guide for Sony Ericsson Z520a (copyright 2005).

Mashita does not "teach away" from the combination because it "is not so credible or persuasive of a contrary teaching that it would have deterred the skilled artisan from using the teachings of" Hiraishi regarding use of HTTP. *See In re Young*, 927 F.2d 588, 592 (Fed. Cir. 1991). Mashita does describe HTTP as a means of transferring digital camera images to an Internet server using a cellular phone. Ex. 1006 ¶¶ 6 (teaching a protocol such as PPP, TCP/IP, or HTTP to transfer an image to a website), 7. Hiraishi teaches transfer of image data "based on a protocol available on the Internet 104, such as HTTP or FTP." Ex. 1010 ¶ 26. Although Mashita does not use HTTP, it recognizes it as a way to transfer images. Hiraishi uses HTTP for image transfer.

We are not persuaded that differences between HTTP and FTP would discourage a person of ordinary skill from using HTTP, as taught by Hiraishi, with Mashita. *See* Sur-reply 22–24. The question is whether use of HTTP have been obvious to use in an image upload via cellular phone, as taught by Mashita. Dr. Foley testified that HTTP could be used over any IP network. Ex. 1023, 18:14–19. Dr. Strawn testifies "that it would have been simple for a [person of ordinary skill] to substitute the FTP transfer disclosed in Mashita with the HTTP uploading disclosed in Hiraishi." Ex. 1001 ¶ 125. We find the evidence supports that a person of ordinary skill would have used HTTP, as taught by Hiraishi, in the image upload process taught by Mashita. *See* Ex. 1001 ¶¶ 125–126.

We find Petitioner has persuasively shown Limitation J of claim 1 is taught by Mashita and Hiraishi.

e. "wherein the cellular phone is configured to provide a graphical user interface (GUI) in the cellular phone, wherein the graphical user

interface (GUI) is for the received new-media file and to delete the created new-media file" (Limitation K)

Petitioner argues Limitation K is shown by the combination of Mashita and Onishi, first citing to Mashita's display for a cellular phone. Pet. 65 (citing Ex. 1006 ¶ 37 ("Reference numeral 305 represents a display unit used to display cellular phone functions and the application programs and composed of a liquid crystal panel or an organic Electro-Luminescent (EL) display.")); *see also id.* (citing Ex. 1006 ¶ 63) (describing information shown on the display and user input). Petitioner contends a person of ordinary skill "would understand these disclosures to be describing a GUI." *Id.* (citing Ex. 1001 ¶¶ 129, 132). Petitioner asserts Onishi also discloses a GUI that can be used to delete image files stored on the digital camera (the "created new-media file"). *Id.* at 66–67 (citing Ex. 1008 ¶¶ 8 (disclosing that "the digital camera device may be previously programed such that the selection or erasure of the image can be performed in response to an instruction from the portable terminal device," i.e., the cellular phone), 30, 51, 62, p. 4 (claim 6)). Petitioner argues a person of ordinary skill would have understood this disclosure to be the recited "GUI for deleting images from the non-volatile memory of the digital camera." *Id.* (citing Ex. 1001 ¶¶ 133–136).

Patent Owner argues using a GUI to delete images is not taught by Onishi. PO Resp. 45–47 (citing Ex. 1008 ¶¶ 40, 61; Ex. 2009 ¶¶ 137–139). As noted above, Petitioner argues that Mashita has a GUI, a contention Patent Owner does not dispute in its Patent Owner Response. *See id.* at 45 ("Petitioner argues the combination of Mashita and Onishi discloses this limitation first citing to Mashita's GUI for a cellular phone."). In its Sur-reply, Patent Owner asserts that "Mashita does not contain a GUI" and

Masita's "only reference to a display on the cellular phone is 305 in Figure 3 is about 'organic Electro Luminescent(EL) display.'" Sur-reply 25 (citing Ex. 1006 ¶ 37; Ex. 2026 ¶ 11). Further, Patent Owner argues "simply enabling arrow buttons to move a cursor around a textual display does not qualify the interface as a GUI." *Id.* (citing Ex. 2026 ¶ 113).

Patent Owner argues that it is Onishi's "microcomputer 39 on the digital camera device which initiates the image transfer to the cellular phone" and not the cellular phone as recited in Limitation K. PO Resp. 45. Further, because Onishi is cited by Petitioner to show deletion of the image, Patent Owner argues that Onishi has no GUI "to delete the image from the digital camera device 100." *Id.* at 46 (citing Ex. 2009 ¶ 139). Patent Owner argues that "[a] <u>user interface is only a GUI if it is graphical," and Onishi's interface is not "graphical."</u> Sur-reply 25 (citing Ex.2026,¶113) (emphasis omitted).

Patent Owner's argument is premised on its construction of GUI, which we rejected. *See* Section III.A.3 above. For example, Patent Owner argues Onishi's "display does not contain any graphical user input elements such as icons, menus or other graphical representations that can be manipulated by a pointing device such as a mouse, trackball, stylus, or a finger on a touch screen." PO Resp. 46 (citing Ex. 2009 ¶ 138).

We find that Mashita teaches a GUI embodied in a display unit used to display certain phone functions and application programs. Ex. 1006 ¶ 37; Ex. 1001 ¶ 132. Mashita teaches an input unit "composed of a numeric keypad or the like." *Id.* ¶ 38. Mashita discloses that the keypad may be used to input a destination address into the display unit or, alternatively, the destination address may be selected from address book data stored in the cellular phone memory. *Id.* ¶ 63.

Onishi also teaches a GUI. *See* Ex. 1001 ¶ 132; Ex. 1024 ¶ 58. Onishi discloses that the portable phone "includes a display part 53 on which an image can be displayed, a mode selection button 55 for function selection, [and] a button group 59 through which characters, numbers and the like can be input. Ex. 1008 ¶ 14; *see also id.* at 25, Fig. 1, ¶ 40 (portable terminal device is a "portable phone"), at 3 (claim 1, display means on the phone). As illustrated in Figure 1, mode selection button includes left, right, up, and down arrows for selecting functions displayed on the screen. *Id.* at Fig. 1, ¶ 14; Ex. 1024 ¶ 58.. Onishi also teaches an image on the phone can be erased. *Id.* ¶ 51.

We find Petitioner has persuasively shown Limitation K of claim 1 is taught by Mashita, Onishi, and the knowledge of a person of ordinary skill in the art.

f. Independent Claims 5 and 8

Petitioner makes an additional showing with respect to claims 5 and 8. Pet. 56–57. Petitioner alleges claims 5 and 8 recite additional subject matter in that "the digital camera device's processor receives the data transfer request." *Id.* at 56. Petitioner alleges Mashita discloses that the digital camera's CPU 201 "controls the digital camera . . . as a whole," including receiving the data transfer request. *Id.* at 56–57 (citing Ex. 1006 ¶ 23; Ex. 1001 ¶ 165). Claim 8's limitation D1 further recites "wherein the new-media comprises one or more of video data and image data." *See* Pet. 78. Petitioner asserts that "Mashita, Onishi, and Hiraishi disclose this limitation at least because they disclose capturing image data." *Id.* at 69 (citing Ex. 1006 ¶ 76; Ex. 1008 ¶ 6; Ex. 1010 ¶ 15). We find Petitioner's showing with respect to claims 5 and 8 is persuasive.

With respect to the claim language "a mobile software application . . . is configured to . . ." of claim 5 and "the software application . . . is configured to . . ." of claim 8, Patent Owner argues that the claims require a "single mobile software application" to perform the various recited steps. PO Resp. 50 (emphasis omitted). According to Patent Owner, claim 5 requires four steps and claim 8 requires six steps and all must be performed by a single application. *Id*. at 50–51.

Petitioner argues Mashita discloses that "the cellular phone downloads a file transfer program 403 from a server 105, and then stores the program in its application memory 304; accordingly, file transfer program 403 is a 'mobile software application on the cellular phone.'" Pet. 52 (citing Ex. 1006 ¶ 55; Ex. 1001 ¶¶ 101–102). Petitioner argues Patent Owner's argument that the functions of claims 5 and 8 be performed by a "single application" is wrong because "[t]he '698 patent's preferred embodiment describes 'client application '203 of Fig. 2 as having separate software 'modules' dedicated to performing each of the various claimed functions." Reply 29 (citing Ex. 1023, 82:8–83:18; Ex. 1024 ¶¶ 27–28). Petitioner argues even under Patent Owner's construction of requiring a single application, that application could have separate modules and modular programming would have been obvious. *Id*. at 29–30 (citing Ex. 1024 ¶¶ 24–25, 29–30). Patent Owner responds that if more than a single application falls within the broadest reasonable interpretation of claims 5 and 8, *all* of the alleged functions recited must be performed by the alleged "one or more applications." Sur-reply 26 (citing Ex. 2026 ¶ 119).

Petitioner shows that the combination of Mashita and Hiraishi teaches the recited functions. Petitioner explains that Mashita discloses sending a connection request to establish a link, i.e., the digital camera and cellular

phone are paired. Pet. 52 (citing Ex. 1006 ¶¶ 61–62, 75). Petitioner argues Mashita teaches that an image is captured by the digital camera and transferred to the cellular phone, which receives the image over the local wireless link. *Id.* (citing Ex. 1006 ¶¶ 64, 76–78). Petitioner cites Hiraishi for "disclos[ing] that an information processing device 102, through dedicated software installed in the device, can request via a data transfer interface 116 that an image input device 101 transfer image data (which meets the construction of 'new-media') that the image input device has already captured." *Id.* at 53 (citing Ex. 1010 ¶ 17).

We are persuaded by Petitioner's argument that "Mashita discloses that the CPU 301 controls the cellular phone's functions" and "that the cellular phone's functions occur via the execution of program code by the processor." *See* Pet. 67–68 (citing Ex. 1006[23] ¶¶ 33, 128; Ex. 1001 ¶ 168). In particular, Mashita discloses that "a CPU control[s] the cellular phone 102 as a whole," that "a storage medium stor[es] software program codes implementing functions of the communication devices (digital camera and cellular phone)" and that "a CPU or an MPU) of the system or each device reads and executes the program codes stored in the storage medium." Ex. 1006 ¶¶ 33, 128. Thus, Mashita discloses that the CPU performs operations by executing "program code." We are persuaded, and find, that this disclosure of "program code" in the mobile phone controlling the operation of the phone and the teachings of the recited functions by the combination of Mashita and Hiraishi teach a software application as claimed.

[23] Petitioner mistakenly cited Exhibit 1008 (Onishi). Based on the context describing Mashita, we understand Petitioner intended to cite Exhibit 1006.

We find Petitioner has persuasively shown claims 5 and 8 are taught by Mashita and Hiraishi.

g. Motivation to Combine Mashita, Onishi, and Hiraishi

Patent Owner asserts that Petitioner has not shown a motivation to combine Mashita, Onishi, and Hiraishi. PO Resp. 49–50. Patent Owner limits its dispute to the combination of Mashita, Onishi,[24] and Hiraishi to show Limitation J. *Id.* We addressed reasons to combine Mashita and Hiraishi above. *See* Section III.D.4.d above.

Petitioner has persuasively shown a person of ordinary skill would have been motivated to combine Hiraishi with Mashita with respect to the features of Limitation J. Patent Owner does not dispute Petitioner's showings for combining the references for other limitations. *See* Pet. 32–33, 56–57, 68. With respect to Onishi, we find a person of ordinary skill would have been motivated to add Onishi's image deletion functionality to Mashita because a user is provided another convenient user input option and use memory space more efficiently. Pet. 68 (citing Ex. 1001 ¶ 138). Onishi ***expressly teaches*** using a cellular phone as a "remote controller" for the digital camera in this manner makes it "possible to significantly reduce workload and to enhance convenience." Ex. 1008, [0065].

We find that Petitioner's reasons for combining Mashita, Onishi, and Hiraishi are persuasive.

h. Undisputed Independent Claim Common Limitations

Patent Owner does not dispute Petitioner's showing for Common Claim Limitations A, B, E, F, and I of the independent claims 1, 5, 8, and 13. With respect to these undisputed limitations, we agree with Petitioner's

[24] Petitioner does not rely on Onishi for Limitation J. Pet. 63–64.

arguments and supporting evidence set forth in the Petition. Pet. 33–37 (Limitations A, B), 49–51 (Limitations E, F), 58–60 (Limitation I). Petitioner's showing regarding these limitations is supported by the Strawn Declaration. Ex. 1001 ¶¶ 64–73 (Limitations A, B), 95–99 (Limitations E, F), 116–119 (Limitation [I]). Mashita is cited as teaching all the undisputed Common Limitations. *See*, *e.g.*, Pet. 33–34 (Limitation B). Onishi and Hiraishi are also cited as teaching certain of the Common Limitations. For example, Onishi and Hiraishi are cited as also teaching Limitation B. *See* Pet. 34 (citing Ex. 1008 ¶¶ 40, 54; Ex. 1010 ¶¶ 17, 20–21).

We find that Mashita, Onishi, and Hiraishi as understood by a person of ordinary skill teaches all the undisputed Common Limitations.

i. Dependent Claims not Separately Argued

The challenged dependent claims, claims 3, 4, 7, 10–12, and 15–20, are not separately argued as patentable. *See* PO Resp. 53 (citing Ex. 2009 ¶ 158 (dependent claims 3–4, 7, 10–12, and 15–20 "are not obvious over Mashita, Onishi, and/or Hiraishi for at least the same reasons that the independent claims are not obvious.")). Beyond what has already been argued in connection with the independent claims, Patent Owner does not argue any additional reasons supporting patentability.

With respect to the showing made for the dependent claims, we agree with Petitioner's arguments and supporting evidence set forth in the Petition. *See* Pet. 70 (claims 3, 15), 71–72 (claims 4, 7, 10–12, 16–20). Petitioner's showing regarding the undisputed dependent claims is supported by the Strawn Declaration. Ex. 1001 ¶¶ 141–146 (claims 3 and 4), 170–171 (claim 7), 207–217 (claims 10–12), 237–248 (claims 15–20).

We find that Petitioner has shown that the combination of Mashita, Onishi, and Hiraishi teaches the claimed subject matter of dependent claims 3, 4, 7, 10–12, and 15–20.

j. Summary of Obviousness of Claims 1, 3–5, 7–8, 10–13, 15–20 Over Mashita, Onishi, and Hiraishi

For the reasons discussed above, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 3–5, 7, 8, 10–13, and 15–20 are unpatentable over Mashita, Onishi, and Hiraishi.

E. Patent Owner's Remaining Arguments

Patent Owner challenges the constitutionality of this proceeding on numerous grounds. PO Resp. 53–55; Paper 28 ("Objections to this Proceeding for Violating the Appointments Clause of the U.S. Constitution"). We decline to consider Patent Owner's constitutional challenges as they have been addressed by the Federal Circuit in *Celgene Corp. v. Peter*, 913 F.3d 1342, 1357–63 (Fed. Cir. 2019) and *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320 (Fed. Cir. 2019).

F. Motions to Strike

Per our authorization, both parties filed motions to strike. *See* Paper 40.

1. Petitioner's Motion to Strike[25]

We have reviewed Petitioner's Motion to Strike. Paper 44. Petitioner raises issues regarding the construction of "paired wireless connection" first asserted in the Patent Owner Response. *See id.* at 1. Petitioner also faults

[25] Petitioner also filed an objection to evidence submitted with Patent Owner's Sur-reply. *See* Paper 21. No motion to exclude was filed and the objections are not preserved for our review. *See* 37 C.F.R. § 42.64(c).

the Sur-reply and the Foley Sur-Reply Declaration regarding efforts to make new arguments and "explain away" relevant Foley deposition testimony. *Id.* at 4–8. Petitioner argues that Patent Owner's justification is based upon "supposed improprieties in Panasonic's reply brief and accompanying evidence." *Id.* at 8–10. Petitioner also contends the Sur-reply violates our rules regarding word count. *Id.* at 10–11 (citing 37 C.F.R. § 42.24(c).

Because we find for Petitioner on the issues raised and do not rely on any of the allegedly improperly submitted exhibits or the arguments alleged to be improper response in a manner adverse to Petitioner, Petitioner's Motion is denied as moot.

2. Patent Owner's Motion to Strike/Objections

Patent Owner's Motion to Strike asserts that Petitioner has changed its asserted new theories in its Reply. PO Mot. 7–14. Patent Owner also filed "Objections to Petitioner's Reply and to Evidence Submitted With Petitioner's Reply" ("Objections"). Paper 21. Patent Owner did not file a separate motion to exclude, instead repeating the basis for the Objections in its Motion. Thus, we address only the Patent Owner's Motion.

We are not persuaded that the arguments and evidence Patent Owner moves to strike are improper. We agree with Petitioner that the arguments and supporting evidence regarding claim construction properly either dispute Patent Owner's proposed construction, explain how the prior art would meet Patent Owner's construction, and/or are fairly within the scope of the Petitioner's contentions in the Petition. *See* Pet. Opp. 3–4. For example, in response to Patent Owner's argument that the Reply includes a new theory on "paired wireless connection" (PO Mot. 4 (Argument III.A)), we did not rely on that alleged new theory because we did not adopt PO's proposed construction. *See* Section III.D.4.a.(1) above.

In addition to argument III.A, the following arguments are raised by Patent Owner's Response, are within the proper scope of Petitioner's Reply, and we deny Patent Owner's Motion for reasons summarized below.

Patent Owner's Argument III.B alleges a new theory "concerning multiple modules performing the claimed functions." PO Mot. 5–7. As explained above in Section III.D.4.f, the Petition encompasses a showing that the combination of the references teaches the claimed mobile software application. *See* Pet. 52 (citing Ex. 1006 ¶ 55; Ex. 1001 ¶¶ 101–102), 53–54 (citing Ex. 1010 ¶¶ 15–16, 21; Ex. 1001 ¶ 103). Petitioner's arguments regarding modularity properly expand upon those contentions and respond to Patent Owner's arguments. For these same reasons the Strawn Reply Declaration's support for the Reply is proper. *See* PO Mot. 7 (regarding Ex. 1024 ¶¶ 25–30).

Patent Owner's Argument III.C alleges a new theory "concerning Mashita's PIN being the same thing as, or interchangeable with, a BT passkey." PO Mot. 7–8. Petitioner properly expands upon its contention in its Petition and responds to Patent Owner's argument made in the Response that a PIN is different from a passkey. *See* Pet. 37–42; PO Resp. 39; Reply 9 (difference between "PIN" and "passkey" is immaterial). For these same reasons the Strawn Reply Declaration's support for the Reply is proper. *See* PO Mot. 8 (regarding Ex. 1024 ¶ 48).

Patent Owner's Argument III.D alleges a new theory "concerning concerning Mashita's description allegedly matching descriptions of 'pairing' in the BT and/or that the BT spec. indicates Mashita's PIN would result in a paired connection." PO Mot. 8–11. Petitioner properly expands upon its contention in its Petition and responds to Patent Owner's argument made in the Response attempting to limit the claims to "Secure Simple

Pairing" or any type of encryption. *See* Pet. 37–42; PO Resp. 18–19; Reply 10–13. For these same reasons the Strawn Reply Declaration's support for the Reply is proper. *See* PO Mot. 9 (regarding Ex. 1024 ¶¶ 12–20).

Similar to Arguments III.C and D, Patent Owner's Arguments III.E through III.H all relate to arguments about Bluetooth pairing and the Bluetooth specification raised by Patent Owner. *See* PO Mot. 11–13. The Response raised arguments relating to Bluetooth pairing and the Bluetooth specification. *See*, *e.g.*, PO Resp. 30–38. Petitioner is entitled to expand upon its contention in its Petition and respond, and did so. *See* Pet. 37–42; Reply 7–18. For these same reasons the Strawn Reply Declaration's support for the Reply is proper. *See* PO Mot. 11–13 (regarding Ex. 1024 ¶¶ 14–16).

Argument III.I faults an argument allegedly made by Petitioner that Mashita "could be read to disclose" Limitation J on its own. *See* PO Mot. 13–14. We did not decide Limitation J on Mashita alone. *See* Section III.D.4.d. For these same reasons the Strawn Reply Declaration's support for the Reply is proper. *See* PO Mot. 14 (regarding Ex. 1024 ¶¶ 40–42).

Argument III.J moves to strike paragraph 10 of the Strawn Reply Declaration because it "attempts a vague catch-all for new obviousness theories" based on the knowledge of a person of ordinary skill. *See* PO Mot. 14. We did not rely on paragraph 10 of the Strawn Reply Declaration.

Argument III.K moves to strike Exhibits 1014 and 1016, user guides for Sony and Nokia cellular phones. PO Mot. 15. The question relates to using HTTP to upload images, as per Limitation J. We did not rely on either exhibit but rather on Hiraishi. *See* Section III.D.4.d.

For the reasons stated above or because we did not rely on the argument or evidence to which the Motion is directed, Patent Owner's Motion to Strike and related objection are denied.

IV. CONCLUSION[26]

Petitioner has shown unpatentability by a preponderance of the evidence as to all of its challenges on all challenged claims.

In summary:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 3–5, 7–8, 10–13, 15–20	103	Mashita, Onishi, Hiraishi	1, 3–5, 7, 8, 10–13, 15–20	
Overall Outcome			1, 3–5, 7, 8, 10–13, 15–20	

V. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, that claims 1, 3–5, 7, 8, 10–13, and 15–20 of the '698 patent are determined to be 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;

FURTHER ORDERED that Petitioner's Motion to Strike is *denied*; and

[26] 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 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).

FURTHER ORDERED that Patent Owner's Motion to Strike is *denied*.

For PETITIONER:

Timothy Pearce
Christopher Higgins
ORRICK HERRINGTON & SUTCLIFFE LLP
tvpptabdocket@orrick.com
0chptabdocket@orrick.com

David Xue
Karineh Khachatourian
RIMON LAW
david.xue@rimonlaw.com
karinehk@rimonlaw.com

For PATENT OWNER:

Rene Vazquez
GARTEISER HONEA, PLLC
rvazquez@sinergialaw.com

John Edmonds
Stephen Schlather
EDMONDS & SCHLATHER, PLLC
pto-edmonds@ip-lit.com
sschlather@ip-lit.com