

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS INC.
Petitioner,

v.

FALL LINE PATENTS, LLC
Patent Owner.

Case IPR2019-00610
Patent 9,454,748 B2

Before MICHELLE N. WORMMEESTER, SHEILA F. McSHANE, and
JOHN R. KENNY, *Administrative Patent Judges*.

KENNY, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

This is a preliminary proceeding to decide whether to institute an *inter partes* review of U.S. Patent No. 9,454,748 B2 (Ex. 1001, “the ’748 patent” or “the challenged patent”). See 35 U.S.C. § 314(a); 37 C.F.R. § 42.4(a) (delegating authority to institute trial to the Board). Institution of an *inter partes* review is authorized by statute when “the information presented in the

petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

American Multi-Cinema, Inc.; AMC Entertainment Holdings, Inc.; Boston Market Corporation; Mobo Systems, Inc.; McDonald’s Corporation; McDonald’s USA; Panda Restaurant Group, Inc.; Panda Express Inc.; Papa John’s International, Inc.; Star Papa LP; and Papa John’s USA, Inc. (collectively, “Petitioner”) and Starbucks Corporation¹ filed a Petition (Paper 7, “Pet.”) seeking *inter partes* review of claims 1, 2, 5, 7, and 19–22 of the challenged patent (“challenged claims”). Patent Owner, Fall Line Patents, LLC, filed a Preliminary Response (Paper 10, “Prelim. Resp.”) to the Petition.

Having considered the Petition and the Preliminary Response, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims, and we institute *inter partes* review as to all challenges presented in the Petition. At this stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or any underlying factual or legal issues.

A. Related Proceedings

The parties identify a number of related litigations involving the challenged patent. Pet. 1–2; Paper 9, 2–3. As the parties state, the challenged patent was also reviewed in IPR2018-00043. Pet. 1–2; Paper 9, 2–3. The parties further indicate that the challenged patent was the subject

¹ This proceeding has been terminated with respect to Starbucks Corporation. Paper 13.

of the petition filed in IPR2018-00535, but that proceeding was terminated before an institution decision issued. Pet. 2; Prelim. Resp. 3. Petitioner further indicates that U.S. Patent No. 7,822,816, of which the challenged patent is a continuation, was the subject of Reexamination No. 90/012,829 and was the subject of IPR2014-00140, the latter of which was terminated after institution. Pet. 3.

B. Overview of the Challenged Patent

The challenged patent is directed to a method of collecting data from a remote computing device, such as a handheld computing device, by creating and delivering a questionnaire to the remote computing device, executing the questionnaire on the remote computing device, and transmitting responses to a server via a network. Ex. 1001, at [57].

Figure 1 of the challenged patent is reproduced below:

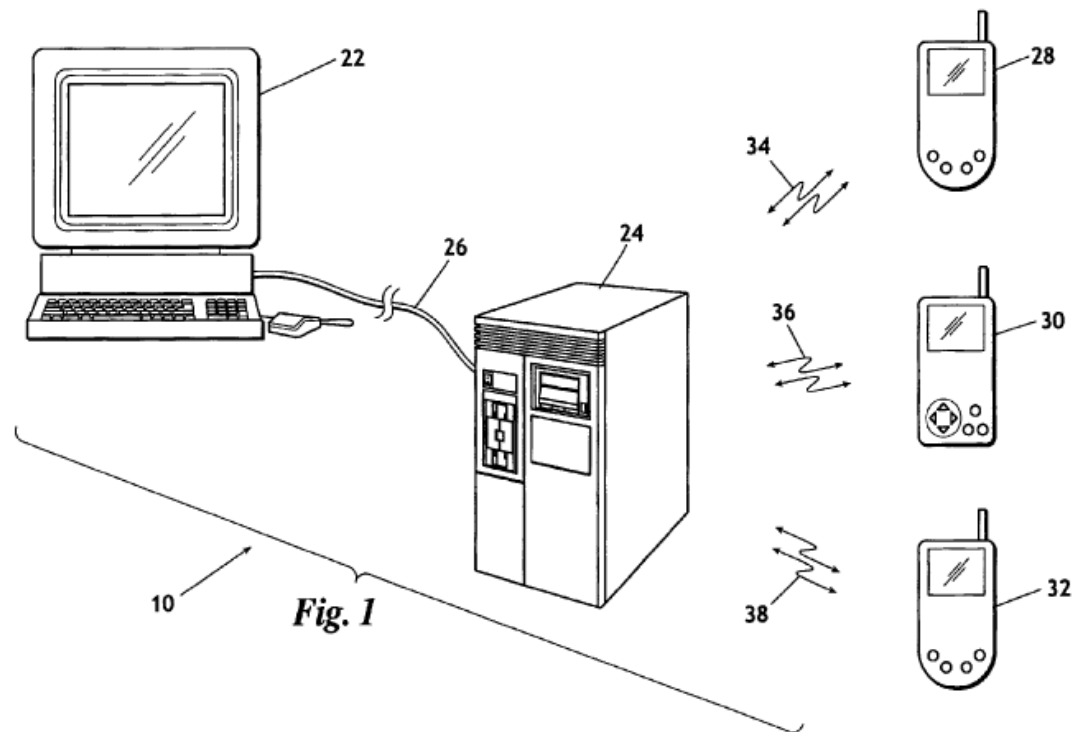


Figure 1 is a diagram of the challenged patent's system for data management. Ex. 1001, 6:57, 7:13–23. System 10 includes server 24; handheld computers 28, 30, and 32, which are operated remotely from server 24; and computer 22, which provides for administration of the system and reviewing data collected by the system. *Id.* at 7:13–23, Fig. 1. Server 24 is connected to computer 22 via Internet 26, a local area network, or a private wide area network. *Id.* at 7:24–28, Fig. 1. Server 24 is connected to handheld computers 28, 30, and 32 via connections 34, 36, and 38, respectively. *Id.* at 7:24–26. Connections 34, 36, and 38 are loose network connections, meaning that handheld computers 28, 30, and 32 and server 24 are tolerant of intermittent network connections. *Id.* at 7:59–62. Computer 22 is used for administrating system 10 and for reviewing data collected by the system. *Id.* at 7:21–23.

Figure 2 of the challenged patent is reproduced below:

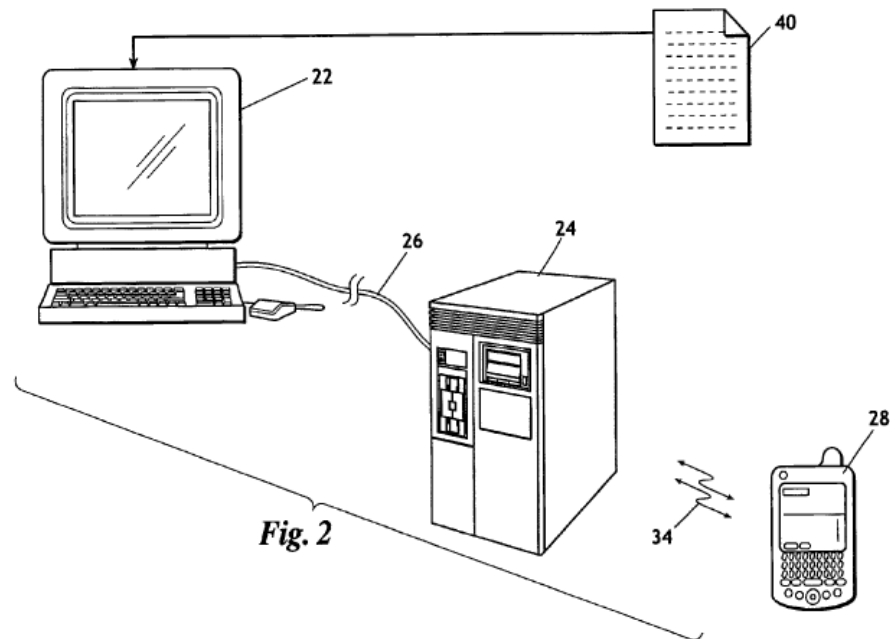


Figure 2 is a diagram of system 10 as it is used for form creation. Ex. 1001, 6:58–59; 8:11–17. Computer 22 has an interface that allows a user to create a form and distribute it to handheld devices using computer 22. *Id.* at 8:38–50. As the client enters questions and selects response types, server 24 builds a stack of questions and responses, and assigns indices, or tokens, which point to each question or response. *Id.* at 8:53–56, 9:3–6. Each token can correspond to a logical, mathematical, or branching operation. *Id.* at 8:56–59, 9:3–6. When questionnaire 40 is complete, server 24 sends the stack of questions and defined responses to the handheld devices (e.g., handheld computer 28). *Id.* at 9:3–6. System 10 can incrementally update the questionnaire on the handheld devices. *Id.* at 9:14–18.

For example, system 10 can track mystery shoppers at restaurant chains. Ex. 1001, 10:37–43. System 10 can track the time it takes a mystery shopper to go through a drive through window. *Id.* at 10:41–43. When the mystery shopper enters a parking lot for a franchise, a handheld device with a GPS receiver can identify the franchise. *Id.* at 10:55–59. The device can also record the amount of time it takes for the shopper to go through a drive through line. *Id.* at 10:55–11:21.

C. Illustrative Claims

Petitioner challenges claims 1, 2, 5, 7, and 19–22 of the challenged patent, of which, claims 1, 7, 19, and 21 are independent. Claim 19 is reproduced below:

19. A method for managing data comprising the steps of:
 - (a) establishing communications between a handheld computing device and an originating computer wherein said handheld computing device has a GPS integral thereto;

- (b) receiving within said handheld computing device a transmission of a tokenized questionnaire from said originating computer,
 - said tokenized questionnaire including at least one question requesting location identifying information,
 - said tokenized questionnaire comprising a plurality of device independent tokens;
- (c) ending said communications between said handheld computing device and said originating computer;
- (d) after said communications has been ended,
 - (d1) executing at least a portion of said plurality of tokens comprising said questionnaire on said handheld computing device to collect at least one response from a first user, and,
 - (d2) storing within said computing device said at least one response from the first user
 - (d3) using said GPS to automatically obtain said location identifying information in response to said at least one question that requests location identifying information;
- (e) establishing communications between said handheld computing device and a recipient computer;
- (f) transmitting a value representative of each of said at least one response stored within said handheld computing device to said recipient computer; and,
- (g) after receipt of said transmission of step (f), transmitting a notice of said received value representative of each of said at least one response to a second user.

D. Asserted Prior Art and Declaration

Petitioner relies on the following references:²

²The challenged patent is a continuation of Serial No. 10/643,516, filed Aug. 19, 2003, now U.S. Patent No. 7,822,816. Ex. 1001, at [63]. The challenged patent also claims the benefit of Provisional Application No. 60/404,491, filed Aug. 19, 2002. *Id.* at [60].

Reference		Issue Date	Exhibit
Barbosa	U.S. Patent No. 6,961,586 B2	Nov. 1, 2005	Ex. 1002
Hancock	U.S. Patent No. 6,202,023 B1	Mar. 13, 2001	Ex. 1003
Bandera	U.S. Patent No. 6,332,127 B1	Dec. 18, 2001	Ex. 1004
Falls	U.S. Patent No. 5,991,771	Nov. 23, 1999	Ex. 1017

Petitioner also submits a declaration from Kendyl Roman (Ex. 1005).

E. Asserted Grounds

Petitioner asserts the following grounds of unpatentability based on 35 U.S.C. § 103(a):

Ground	Claim(s) Challenged	Reference(s)
1	1 and 19–22	Barbosa ³
2	1 and 19–22	Barbosa and Bandera
3	7	Barbosa and Falls
4	1, 2, 5, and 19–22	Hancock
5	1, 2, 5, and 19–22	Hancock and Bandera
6	7	Hancock and Falls

Pet. 5.

F. Real Parties in Interest

The Petition identifies American Multi-Cinema, Inc.; AMC Entertainment Holdings, Inc.; Boston Market Corporation; Mobo Systems,

³ For Grounds 1 and 4, Petitioner also expressly relies on the knowledge of an ordinarily skilled artisan. Pet. 5.

Inc.; McDonald's Corporation; McDonald's USA; Panda Restaurant Group, Inc.; Panda Express Inc.; Papa John's International, Inc.; Star Papa LP; Papa John's USA, Inc, and Starbucks Corporation as real parties in interest in this proceeding. Pet. 1. Patent Owner identifies Fall Line Patents, LLC as its real party in interest. Paper 9, 2.

II. DISCUSSION

A. Constitutional Challenge

Patent Owner objects to an *inter partes* review “because it is carried out by a final order issued by Administrative Patent Judges who have not been nominated by the President and confirmed by the Senate.” Prelim. Resp. 52. According to Patent Owner, Administrative Patent Judges are “principal Officers” under the Constitution’s Appointments Clause (U.S. Const. Art. II, § 2, Cl. 2), meaning they must be nominated by the President and confirmed by the Senate in order to exercise their authority constitutionally with respect to *inter partes* reviews. *Id.* In this Decision, we will not address this argument by Patent Owner. *See Riggin v. Office of Senate Fair Employment Practices*, 61 F.3d 1563, 1569 (Fed. Cir. 1995). We note, however, that the issue is presently before the Federal Circuit in *Polaris Innovations Limited v. Kingston Technology Company* (No. 2018-1768).

B. Discretionary Denial Under U.S.C. § 314(a)

Patent Owner argues that we should exercise our discretion and deny institution because: (i) Petitioner made inconsistent representations to the district court and the Board, (ii) the claims challenged in this proceeding and in another IPR overlap, and (iii) a related district court trial will occur before a final written decision is due in this proceeding. Prelim. Resp. 50.

First, Patent Owner argues that although Petitioner asserts here that its Petition is substantially different from the petition in IPR2018-00043 (“’043 IPR”), Petitioner told the district court the opposite in seeking a stay. Prelim. Resp. 50. According to Patent Owner, Petitioner argued to the district court that there was substantial overlap in the challenged claims and claim language. *Id.* at 50–51. Patent Owner also notes that Petitioner argued to the district court that, in light of our Final Written Decision in the ’043 IPR, it was a “near certainty” that this IPR would be instituted. *Id.* at 51 (quoting Ex. 2004 at 4).

Second, Patent Owner argues that we should deny institution because we already held some of the challenged claims unpatentable in the ’043 IPR. Prelim. Resp. 51. Patent Owner cites *Nichia Corp. v. Document Security Systems, Inc.*, Case IPR2019-00397 (PTAB Apr. 19, 2019) (Paper 10), in support of this argument. *Id.*

Third, Patent Owner argues that trial in a related district court case is set for May 18, 2020, which is well before a final written decision in this proceeding is due. Prelim. Resp. 52. Therefore, Patent Owner argues that under *NHK Spring Co. v. Intri-Plex Technology, Inc.*, Case IPR2018-00752 (PTAB Sep. 12, 2018) (Paper 8) (precedential), we should deny institution. *Id.*

Petitioner asserts that we should not deny institution under 35 U.S.C. § 314 (a). Pet. 6–7. Petitioner argues that the parties who filed this IPR are not real-parties-in-interest with respect to the prior petitioners in the ’043 IPR and IPR2018-00535. *Id.* Petitioner further asserts that its Petition addresses claims that were not addressed in the ’043 IPR. *Id.* Further, Petitioner argues that it did not plan to stagger its Petition with prior

petitions as Patent Owner did not sue the entities that comprise Petitioner until August 2018. *Id.* (The petitions in the '043 IPR and IPR2018-00535 were filed in October 2017 and January 2018, respectively. '043 IPR, Paper 1; IPR2018-00535, Paper 1.) Petitioner further argues that it did not delay in filing its Petition, but rather filed this Petition one week after Patent Owner served its infringement contentions in a related litigation. *Id.* at 7.

We are not persuaded that we should exercise our discretion to deny institution under 35 U.S.C. § 314(a). Here, we agree with Petitioner that, after being sued, it filed its Petition within a reasonable time after it learned which claims Patent Owner was asserting in the district court. Patent Owner has not persuaded us that Petitioner's arguments to the district court seeking a stay are sufficient to deny institution based on the allegedly conflicting nature of those comments.⁴ We find no error in Petitioner's statements to the district court that there are some overlapping claims, which we discuss below, and some potential similarities on claim construction issues in the '043 IPR. *See* Ex. 2003, 8, Ex. 2004, 4.

Patent Owner's arguments based on *Nichia* (Prelim. Resp. 51) also do not persuade us that we should deny institution here because some of the challenged claims overlap with claims held unpatentable in the '043 IPR. In *Nichia*, nine of the eleven claims challenged in the petition had been held unpatentable in a prior IPR, and three of the four asserted grounds related solely to claims previously held to be unpatentable. *Nichia*, IPR2019-00397, Paper 10, 6–7. Of importance in *Nichia* was that the limitations of the

⁴ The basis for the contention that it was a “near certainty” that this proceeding would institute is unclear, but we do not find that contention warrants denying institution here.

claims that were not challenged in the previous IPR had substantial overlap with the limitations of those previously challenged. *Id.* at 6. Here, three of the eight claims challenged were not challenged in the '043 IPR. And here, none of the asserted grounds relate solely to the previously challenged claims (Pet. ii–viii), and the additional claims being challenged here have limitations that do not overlap with the previously challenged claims (e.g., “transmitting at least a portion of said response from the user to a server in real time via a network,” recited in claim 1; “automatically transferring said questionnaire to a loosely networked computer,” recited in claim 7). Moreover, an appeal is currently pending in the '043 IPR, which involves a different petitioner than those named here. '043 IPR, Paper 45.

Finally, Patent Owner’s arguments based on *NHK Spring* (Prelim. Resp. 52) do not persuade us to deny institution in view of the related litigation. In *NHK Spring*, the panel noted that the related district court proceeding, in which the petitioner had asserted the same prior art and arguments, was nearing its final stages, with expert discovery ending within a few months. *NHK Spring*, IPR2018-00752, Paper 8, 19–20. Although Patent Owner states that trial in a related district court proceeding is set for May 18, 2020 (Prelim. Resp. 52), the record is devoid of other evidence on the status of that case, such as the progress of fact and expert discovery. Additionally, there is no argument or evidence presented by Patent Owner as to any overlap of the asserted prior art and arguments in the district court case to that presented here. Therefore, we decline to exercise our discretion to deny institution on this basis.

C. Level of Ordinary Skill

In the '043 IPR, we determined that an ordinarily skilled artisan at or before the priority date for the challenged patent “would have a bachelor’s degree in computer science, computer engineering, electrical engineering, or a related subject, or equivalent industry or trade school experience in programming software applications.” ’043 IPR, Paper 34, 20 (“’043 Final Written Decision”). In this proceeding, Petitioner proposes that we add to that assessment the following phrase: “as well as significant working knowledge of developing applications for mobile devices that provide location-based services.” Pet. 12 (citing Ex. 1005 ¶¶ 36–40). Patent Owner does not dispute Petitioner’s proposed assessment or propose an alternative assessment. *See generally* Prelim. Resp. At this point, neither party, however, has given us any reason to change the assessment for an ordinarily skilled artisan that we provided in ’043 IPR, which is consistent with the prior art of record here.⁵ Therefore, we apply the same assessment here.

D. Claim Construction

In an *inter partes* review where, as here, the Petition was filed on or after November 13, 2018, we construe claim terms “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent,” as the claims would be construed “in a civil action under 35 U.S.C. 282(b).” Changes to the Claim Construction Standard for Interpreting Claims in Trial

⁵ The '043 Final Written decision issued after the Petition in this IPR was filed. We, however, provided the same assessment for an ordinarily skilled artisan in our '043 Institution Decision, which issued before the Petition in this IPR was filed. '043 IPR, Paper 6, 19 n.6.

Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b) (2019)). We presume that a claim term carries its “ordinary and customary meaning,” which “is the meaning the term would have to a person of ordinary skill in the art in question” at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)); see also *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Finally, only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *Vivid Techs., Inc. v. Am. Sci. & Eng’g. Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Petitioner requests that we construe three claim terms—“GPS integral thereto,” “token,” and “loosely networked”—and partially construe three additional claim terms—“originating computer,” “recipient computer,” and “central computer.” Pet. 12–17. Further, Petitioner proposes a construction for the term “questionnaire” in the event the Board finds that that term needs to be construed. *Id.* at 15–16. Patent Owner does not request that any term be construed. Prelim. Resp. 12–17.

1. ’043 Institution Decision

In our Institution Decision in the ’043 IPR (“’043 Institution Decision,” ’043 Paper 6), we construed several of the above-identified terms. In particular, we construed or partially construed: “GPS integral

thereto,” “token,” “originating computer,” “recipient computer,” and “central computer.” ’043 Inst. Dec. 12–18. In the ’043 Final Written Decision, we adopted the constructions for these terms set forth in the ’043 Institution Decision. ’043 Final Written Decision, 21–24.

As set forth below, for the terms “token,” “originating computer,” “recipient computer,” and “central computer,” Petitioner proposes that we provide the same constructions as in the ’043 IPR. For “GPS integral thereto,” Petitioner proposes a narrower construction. Neither party, however, directly addresses the claim construction analysis we set forth in the ’043 IPR.

In the ’043 IPR, we gave claim terms their broadest reasonable interpretation in light of the specification of the patent in which they appear. ’043 Inst. Dec. 11; ’043 Final Written Dec. 20. As mentioned, in this proceeding, due to an intervening change to 37 C.F.R. § 42.100(b), we must construe those terms “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent,” as the claims would be construed “in a civil action under 35 U.S.C. 282(b). Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b) (2019)). As discussed below, we do not find that this rule change affects the constructions to be given for specific claim terms identified above, and no party has specifically argued otherwise.

2. “GPS integral thereto”

In the ’043 IPR, we construed “GPS integral thereto” to be “Global Positioning System equipment integral thereto.” ’043 FWD 21–22.

Petitioner proposes a narrower construction here: “GPS receiver integral thereto.” Pet. 13. Patent Owner does not address the construction of this term. *See generally* Prelim. Resp.

Petitioner argues that the term “GPS integral thereto” is recited in independent claims 7, 19 and 21 in the context of a handheld computing device that “has a GPS integral thereto.” Pet. 13. Petitioner further argues that the specification of the challenged patent (“Specification”) does not use the phrase “GPS integral thereto” or define the acronym “GPS.” *Id.* Petitioner asserts, however, that an ordinarily skilled artisan would have understood the term “GPS” to be the acronym for “Global Positioning System.” *Id.* (citing Ex. 1005 ¶ 106). Further, Petitioner argues that an ordinarily skilled artisan would have understood that the entire Global Positioning System, including multiple satellites, would not be integral to a handheld computing device. *Id.* (citing Ex. 1005 ¶ 107). Petitioner continues by arguing that the Specification does not refer to any hardware other than a GPS receiver for using GPS to determine GPS coordinates, and an ordinarily skilled artisan would have understood a “GPS receiver” to be any device or module that is capable of receiving GPS signals and determining GPS coordinates therefrom. *Id.* (citing Ex. 1005 ¶ 107). Petitioner concludes that, therefore, an ordinarily skilled artisan would have understood that the term “GPS integral thereto” would mean “GPS receiver integral thereto.” *Id.*

We are not persuaded by Petitioner’s arguments. For the reasons expressed in our ’043 Institution Decision, we agree with Petitioner that the term “GPS integral thereto” would not require that the entire Global Positioning System be in a handheld device. ’043 Inst. Dec. 12–13. We do

not agree, however, that the term “GPS integral thereto” should thus be limited to be a “GPS receiver integral thereto.” Even if we were to accept Petitioner’s argument that a GPS receiver is the only type of GPS equipment disclosed in the Specification, “limitations from the specification are not to be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). Therefore, for purposes of this Decision, we construe “GPS integral thereto” to be “Global Positioning System equipment integral thereto.” ’043 Inst. Dec. 12–13.

3. “token”

In our ’043 Institution Decision, we construed “token” as “a distinguishable unit of a program, such as an index, an instruction, or a command that can represent something else such as a question, answer, or operation.” ’043 Inst. Dec. 16–17. Petitioner argues that we should provide the same construction here. Pet. 15.

Patent Owner does not expressly address the construction of this term, and we do not read the Preliminary Response as implicitly proposing a construction of the term even though Patent Owner discusses the Specification’s use of the term “token.” *See, e.g.*, Prelim. Resp. 5. To avoid any possible confusion in any further briefing, if a party wants to propose a construction for any term, the party should do so expressly (e.g., by identifying the term to be construed and providing an express construction).

For the reasons provided in our ’043 Institution Decision, we construe “token” as “a distinguishable unit of a program, such as an index, an instruction, or a command that can represent something else such as a question, answer, or operation.” ’043 Inst. Dec. 16–17. In that Institution Decision, we cite two exhibits providing dictionary definitions: ’043

Exhibits 1016 and 1017. We designate those exhibits, respectively, as Exhibits 3001 and 3002 in this proceeding.⁶

4. “*originating computer*”/“*recipient computer*”/“*central computer*”

In our ’043 Institution Decision, we construed “central computer,” “originating computer,” and “recipient computer” as encompassing a computer having the ability to perform functions associated with an originating computer, a recipient computer, and/or a central computer. ’043 Inst. Dec. 18. Petitioner argues that we should provide the same construction here. Pet. 15. Patent Owner does not address the construction of this term. *See generally* Prelim. Resp. Accordingly for the reasons provided in the ’043 Institution Decision, we construe “central computer,” “originating computer,” and “recipient computer” as encompassing a computer having the ability to perform functions associated with an originating computer, a recipient computer, and/or a central computer. ’043 Inst. Dec. 18.

5. “*loosely networked*”

Petitioner argues that “loosely networked” should be construed to as “tolerant of intermittent network connections and tolerant of the type of network connection available.” Pet. 16. Patent Owner does not address this proposed construction or provide its own proposed construction for the term. *See generally* Prelim. Resp.

⁶ Given its claim construction position, Petitioner might have submitted these dictionary excerpts as exhibits in this proceeding. Neither party, however, submitted any dictionary excerpts to support a proposed construction. Pet. xi; Prelim. Resp., iv. Accordingly, we designate these dictionary excerpts as exhibits.

Petitioner’s proposed construction has intrinsic support. As Petitioner notes, the Specification uses the term “loosely networked” “to describe a networked computer system wherein devices on the network are tolerant of intermittent network connections and, in fact, tolerant of the type of network connection available.” Ex. 1001, 5:3–7. The Specification also provides some more specificity regarding the meaning of the term, specifying, “In particular, if any communication connection is available between devices wishing to communicate, network transmissions occur normally, in real time. If a network connection is unavailable at that moment, the information is temporarily stored in the device and later transmitted when the connection is restored.” Ex. 1001, 5:7–12.

For purposes of this Decision, we adopt Petitioner’s unopposed construction.

6. “questionnaire”

Petitioner set forth a proposed construction for the term “questionnaire” in the event we need to construe the term. Pet. 15–16. Patent Owner does not propose a construction for questionnaire, and neither party has demonstrated a need for us to construe the term. *See generally* Prelim. Resp.; Pet. 15–16. Accordingly, for purposes of this Decision, we do not need to construe “questionnaire.”

E. Analysis of the Asserted Grounds of Unpatentability

1. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103(a) 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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations.⁷ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Further, “[t]o 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). We analyze the asserted grounds with these principles in mind.

2. Asserted Obviousness over Barbosa

Petitioner argues that claims 1 and 19–22 would have been obvious over Barbosa. Pet. 18–38. We determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this assertion.

a. Barbosa

Barbosa relates to systems for conducting field assessments utilizing handheld data management devices, such as personal digital assistants, handheld computers, two-way pagers, and Web/WAP enabled telephony. Ex. 1002, 1:10–16.

⁷ Patent Owner does not contend that such secondary considerations are present. *See generally* Prelim. Response.

Figure 6 of Barbosa is reproduced below:

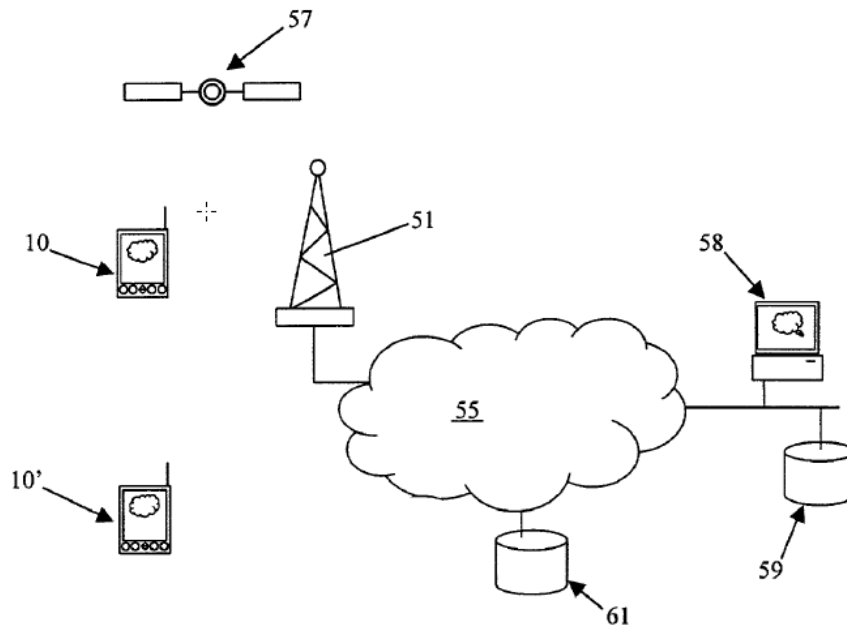


Figure 6 illustrates “an environment for extended operation/communication between a handheld device 10 (client) and remote management system 58 (e.g., server, desktop PC).” Ex. 1002, 7:23–26.

Barbosa discloses that a user in the field may utilize handheld device 10 for assessment of a field problem by executing an industry-specific program on the handheld device related to the problem being addressed. Ex. 1002, 7:42–47. During program execution, the user may access remote resources (e.g., information, data, and assistance) via wireless communication systems 51 and networks 55. *Id.* at 7:48–51. Information may be obtained from server 58 located at the user's enterprise or from other network 55 resources available to the user (e.g., Web pages provided/obtained over the Internet). *Id.* at 7:51–54.

Barbosa further discloses that “the handheld device may also be equipped within a position module 46 to enable the handheld device to

utilize positioning systems or methods known in the art such as satellite position (e.g., Global Positioning System (GPS)) or signal triangulation techniques.” Ex. 1002, 6:40–44.

b. Claim 19

(i) A method for managing data

Petitioner argues that Barbosa teaches the preamble recitation of claim 19 because Barbosa describes “methods of conducting field assessments utilizing handheld data management devices.” Pet. 18 (quoting Ex. 1002, at [57]). Petitioner’s argument is supported by the testimony of Mr. Roman. Ex. 1005 ¶ 121. Patent Owner presents no counterargument. Prelim. Resp. 39–40.⁸ After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing for the preamble of claim 19.⁹

(ii) (a) establishing communications between a handheld computing device and an originating computer wherein said handheld computing device has a GPS integral thereto

Petitioner argues that Barbosa establishes communications between a handheld computing device and an originating computer by establishing communications between device 10 and server 58. Pet. 18. In particular, Petitioner asserts that device 10 is a handheld device. *Id.* (citing Ex. 1002,

⁸ Patent Owner addresses Petitioner’s arguments concerning Barbosa’s teachings or suggestions of the limitations of claim 19 in Patent Owner’s discussion of Petitioner’s showing regarding claim 20. Prelim. Resp. 39–40. Claim 20 depends from claim 19. In Patent Owner’s discussion of Petitioner’s showing for claim 20, Patent Owner does not address this preamble recitation.

⁹ We make no determination in this Decision whether the preamble of claim 19 is limiting.

5:43–45). Further, Petitioner asserts that device 10 is a computing device because it has a set of instructions in a code module in RAM 26 and because device 10 downloads programs. *Id.* at 18–19 (citing Ex. 1002, 6:1–23, Fig. 6). Petitioner further argues that device 10 communicates with server 58 via communications module 42 and obtains programs and templates from that server. *Id.* (citing Ex. 1002, 6:1–22, 7:23–37). Further, Petitioner asserts that server 58 is an originating computer. *Id.* Petitioner also asserts that GPS receiver 46 is integral to device 10. *Id.* at 19–20 (citing Ex. 1002, 6:40–44, Fig. 5). Petitioner’s arguments are supported by the testimony of Mr. Roman. Ex. 1005 ¶ 124. Patent Owner presents no counterargument. Prelim. Resp. 39–40. After reviewing the parties’ arguments and evidence, we determine Petitioner provides a sufficient showing for this limitation.

(iii) (b) receiving within said handheld computing device a transmission of a tokenized questionnaire from said originating computer

Petitioner argues that device 10 in Barbosa contains code modules, templates, and programs that are a questionnaire. Pet. 20. Petitioner asserts that “Barbosa discloses that the handheld computing device 10 receives, from the originating computer, ‘a set of instructions in a code module’ that ‘implement[]’ the ‘invention’ (Ex. 1002, 6:1–2) and/or ‘templates (e.g., task/punch lists) and/or programs’ (*id.*, 7:27–28).” *Id.* Petitioner further argues that “[t]he downloaded code modules, templates, and/or programs represent a questionnaire.” *Id.* (citing Ex. 1005 ¶ 125.) Petitioner quotes Barbosa’s disclosures that the “programs operated by the microprocessor ask questions or provide guidance related to a particular field problem” and

“[t]he program would prompt the user for input of data related to the problem.” *Id.* (quoting Ex. 1002, 6:60–61, 7:47–48).

Petitioner further argues that the code modules, templates, and programs (the asserted questionnaire) in device 10 are tokenized. Pet. 20. Petitioner quotes Barbosa’s disclosure that “[c]omputer program code for carrying out operations of the present invention can be written in an object oriented programming language such as Java” *Id.* (quoting Ex. 1002, 12:45-51). Petitioner then argues that “[a] questionnaire (e.g., downloaded code modules, templates, and/or programs) written in an object oriented programming language[,] such as Java[,] would have included an index, an instruction, or a command that can represent something else such as a question, answer, or operation.” *Id.* at 20–21 (citing Ex. 1005 ¶ 126).¹⁰ Petitioner concludes that “[t]herefore, Barbosa discloses a tokenized questionnaire.” *Id.* at 21.

In addition, Petitioner argues that “Barbosa’s program provides ‘[a]n interactive question and answer session.’” Pet. 21 (citing Ex. 1002, 6:62). Petitioner asserts that “[t]o do so, the program would have included distinguishable units, such as indexes, instructions, or commands that represent the questions, answers, or operations connecting the interactive questions and answers.” *Id.* (citing Ex. 1005 ¶ 127). Petitioner cites

¹⁰ We note that Petitioner does not cite to support other than expert testimony for this contention or identify specific Java code or features that it contends constitutes the index, instruction, or command. Patent Owner has not challenged Petitioner’s showing on this basis, and, at this juncture, we find that Petitioner demonstrates a reasonable likelihood of success on this challenge based on expert testimony. We make no determination as to Petitioner prevailing on this showing under the preponderance of the evidence standard at trial.

Barbosa's disclosure that "[t]he program may start by asking for the identification of [] the client or matter 703 (e.g., customer, or job site)," and "[t]he program may next ask the representative to identify the problem or type of assessment 704 (e.g., HVAC, plumbing, electrical, landscaping, etc.)." *Id.* (quoting Ex. 1002, 8:54-59). Petitioner argues that, as a result, an ordinarily skilled artisan "would have understood that Barbosa's program would have included instructions that ask these questions (e.g., identification of type of assessment), as well as indexes corresponding to the available answers (e.g., HVAC, plumbing, electrical, or landscaping), and additionally would have included instructions and operations connecting the first question to the next." *Id.* (citing Ex. 1005 ¶ 127).¹¹ Petitioner's arguments are supported by the testimony of Mr. Roman. Ex. 1005 ¶¶ 125–129.

Patent Owner argues that Barbosa's template would not have tokens that are device independent and executable. Prelim. Resp. 24. We address that argument below in considering the subsequent limitations of claim 19 that recite "device independent tokens" and "executing at least some portion of said plurality of tokens." Patent Owner also argues that Petitioner's argument that Barbosa's template is written in Java is unsupported by Barbosa's disclosure. *Id.* at 25. Patent Owner asserts that Barbosa does not disclose using Java to write code for device 10, but rather only identifies writing code in Java for the user's computer and a remote computer. *Id.* at 26. In addition, Patent Owner argues that Barbosa's template is not a questionnaire. *Id.* at 26–27. Patent Owner further asserts that every example template in Barbosa is simply a listing of questions so Barbosa's

¹¹ See *supra* n. 10.

template would not be written in Java. *Id.* Patent Owner further asserts that Barbosa’s template is designed to be presented to the user through an associated program on device 10. *Id.* at 27. As a result, Patent Owner argues that Barbosa at best teaches a template that might be operated in combination with a program that might be written as a Java applet. *Id.* at 28.

We note that Petitioner argues that a program in device 10 would be written in Java, so the mere fact that the template would not be written in Java would not be fatal to Petitioner’s showing. Pet. 20–21. Nevertheless, Patent Owner’s arguments that Barbosa does not disclose using Java to write code on device 10 is an issue best further addressed at trial.

After reviewing the parties’ arguments and evidence, we determine, for purposes of this Decision, that Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(iv) said tokenized questionnaire including at least one question requesting location identifying information

Petitioner argues that Barbosa’s questionnaire includes at least one question requesting location identifying information. Pet. 22–23. Petitioner cites Barbosa’s disclosure that “[o]nce a program is opened on the handheld device, the assessor may be asked (e.g., prompted) to identify the job 801 (e.g., location, customer name, date, type of job).” *Id.* at 22–23 (quoting Ex. 1002, 9:54–56) (emphasis omitted). Petitioner further argues that Barbosa discloses that location identifying information can be provided using GPS coordinates, quoting Barbosa that “GPS coordinate[s] associated with the collection of data [is an] important attribute[.]”. *Id.* at 23 (quoting Ex. 1002, 12:30–32). Petitioner’s arguments are supported by the testimony of Mr. Roman. Ex. 1005 ¶ 130. Patent Owner presents no counterargument. Prelim. Resp. 39–40. After reviewing the parties’ arguments and evidence,

we find that Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(v) said tokenized questionnaire comprising a plurality of device independent tokens

Petitioner argues that the program in device 10 comprises a plurality of device independent tokens. Pet. 23. Petitioner cites Barbosa's disclosures that the "computer program transmitted from the [server]" can be "in the form of a JAVA applet" and the "[c]omputer program code for carrying out operations of the present invention can be written in an object oriented programming language such as Java" *Id.* (citing Ex. 1002, 12:14–18, 12:45-47). Petitioner argues that an ordinarily skilled artisan would understand that Java is a programming language that provides device independence—it runs irrespective of the particular hardware or operating system of any given device. *Id.* According to Petitioner, the knowledge of an ordinarily skilled artisan regarding Java is reflected in Bandera, which states that "JAVA® is a portable and architecturally neutral language," and "JAVA® source code is compiled into a machine-independent format that can be run on any machine with a JAVA® runtime system known as the JAVA® Virtual Machine (JVM)." *Id.* at 23–24 (quoting Ex. 1004, 5:40–44) (emphasis omitted). Further, Petitioner asserts that an ordinarily skilled artisan would have further understood that Java code is not only machine independent, but also operating-system independent. *Id.* at 24. Petitioner cites Bandera's disclosure that "[M]achines running under diverse operating systems, including UNIX, Windows NT, and MacIntosh having a JVM can execute the same JAVA® program." *Id.* (quoting Ex. 1004, 5:47–49). According to Petitioner, such platform independence—allowing a program to be written once but run on diverse platforms—has been a defining feature

of Java. *Id.* (citing Exs. 1014, 1015). Petitioner's arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶¶ 131–133.

Patent Owner notes that Barbosa claims priority to a provisional application filed in 2000. Prelim. Resp. 29 n.2. Patent Owner argues that Petitioner and Petitioner's expert never demonstrate that Java in 2000 could obtain information from a GPS receiver in a device independent manner. *Id.* at 29. According to Patent Owner, Exhibit 2001 demonstrates that Barbosa could not have accessed GPS with a Java program and maintained device independence. *Id.* Patent Owner further argues that Java applets were not part of the Java telecommunications standard and that handheld computer devices in 2000 did not use the Java virtual machine. *Id.* at 31. Patent Owner argues that Bandera's use of the Java virtual machine means that Bandera is referring to Java as it exists on laptop or desktop computers. *Id.*

After reviewing the parties' arguments and evidence, we find Petitioner provides a sufficient showing for the teaching of this limitation. The instant limitation does not require that a program obtain information from a GPS receiver in a device independent manner. Instead, it requires that the tokens in the questionnaire be device independent. In addition, Java's capabilities for handheld devices in 2000 do not appear relevant because the earliest claim for priority in the challenged patent is for a filing date in 2002. Ex. 1001, at [60]. Accordingly, during trial, the parties should address Java's limitations and capabilities for handheld devices as of the date they contend is the effective filing date for the challenged patent. Alternatively, the parties should explain why the limitations and capabilities of Java for handheld devices at a different time would be pertinent.

(vi) (c) ending said communications between said handheld computing device and said originating computer

Petitioner argues that Barbosa explains that the program that asks questions on device 10 can be “downloaded from a server via the Internet until required by the device 10.” Pet. 25 (quoting Ex. 1002, 6:5–6) (emphasis omitted). Petitioner further argues that Barbosa discloses that after “communication between a handheld device 10 (client) and remote management system 58 (e.g., server, desktop PC)” is established to download the program, the program “may be stored locally on a user’s [device].” *Id.* (quoting Ex. 1002, 7:23–31) (emphasis omitted). Petitioner contends that to the extent that Barbosa does not expressly disclose ending communications between a handheld computing device and an originating computer, it would have been obvious to an ordinarily skilled artisan that either handheld device 10 or remote management system 58 may end communications after downloading because Barbosa discloses that the questionnaire can be stored locally on the handheld device following completion of the download. *Id.* at 25–26. As a result, Petitioner argues that Barbosa teaches or suggests this limitation. *Id.* at 26. Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 134.

Patent Owner presents no counterargument. Prelim. Resp. 39–40.

After reviewing the parties’ arguments and evidence, we find that Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(vii) (d) after said communications has been ended, (d1) executing at least a portion of said plurality of tokens comprising said questionnaire on said handheld computing device to collect at least one response from a first user

Petitioner argues that Barbosa's communications with the server providing the questionnaire end when the download is complete. Pet. 26. Petitioner further argues that the downloaded code modules, templates, and programs that represent the questionnaire can be executed to provide "[a]n interactive question and answer session." *Id.* (quoting Ex. 1002, 6:58-64). As a result, Petitioner argues that an ordinarily skilled artisan would understand that Barbosa discloses "after said communications has been ended," "executing at least a portion of said plurality of tokens comprising said questionnaire on said handheld computing device" because this execution cannot occur until after the questionnaire has been downloaded. *Id.* Petitioner further argues that the program collects at least one response from a user. *Id.* Petitioner quotes Barbosa's disclosure that "[t]he program would prompt the user for input of data related to the problem." *Id.* (quoting Ex. 1002, 7:47-48). According to Petitioner, therefore, Barbosa discloses this limitation. *Id.* Petitioner's arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 135.

Patent Owner argues that Barbosa's templates do not have executable tokens because those templates are little more than lists. Prelim. Resp. 24. As discussed above, however, because Petitioner argues that a program in device 10 would be written in Java, the mere fact that the template would not be written in Java would not be fatal to Petitioner's showing. Pet. 20-21.

After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing for the prior art teachings of this limitation.

(viii) (d2) storing within said computing device said at least one response from the first user

Petitioner quotes Barbosa’s disclosures that the “handheld data management device for field assessments can include a memory for storing field assessment programs and related data” and “data collected with the device 10 . . . may be stored in local memory for subsequent use” Pet. 27 (quoting Ex. 1002, 3:44–46, 8:4–8). Petitioner argues that these disclosures teach this limitation. *Id.* Petitioner’s argument is supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 136.

Patent Owner provides no counterargument. Prelim. Resp. 39–40.

After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(ix) (d3) using said GPS to automatically obtain said location identifying information in response to said at least one question that requests location identifying information

Petitioner argues that Barbosa discloses obtaining a location automatically using device 10’s GPS receiver. Pet. 27. Petitioner cites Barbosa’s disclosure that “location information may be provided by the handheld device automatically via [the] resident GPS module.” *Id.* (quoting Ex. 1002, 10:14–17). Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 137.

Patent Owner provides no counterargument. Prelim. Resp. 39–40.

After reviewing the parties' arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(x) (e) establishing communications between said handheld computing device and a recipient computer

Petitioner argues that Barbosa discloses establishing communications between the handheld computing device and a server to transmit collected responses for analysis. Pet. 27–28. Petitioner quotes Barbosa's disclosures that "[r]ealtime analysis of data obtained may also be undertaken by remote processor (e.g., server . . .)." and "a transcript of the assessor's interaction with the handheld (e.g., questions and responses) may be transmitted to remote resources for further analysis." *Id.* at 28 (quoting Ex. 1002, 7:54–56; 9:38–40). Petitioner argues that the remote server is a recipient computer. *Id.* Petitioner's arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 138.

Patent Owner provides no counterargument. Prelim. Resp. 39–40.

After reviewing the parties' arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(xi) (f) transmitting a value representative of each of said at least one response stored within said handheld computing device to said recipient computer

Petitioner argues that Barbosa discloses that the collected responses that are stored by device 10 are transmitted to the server for analysis. Pet. 28 (citing Ex. 1002, 7:54–56; 9:38–40). Further, Petitioner asserts that the actual responses are values that represent the responses. *Id.* Petitioner's

arguments are supported by the declaration testimony of Mr. Roman.
Ex. 1005 ¶ 139.

Patent Owner provides no counterargument. Prelim. Resp. 39–40.

After reviewing the parties’ arguments and evidence, we find
Petitioner provides a sufficient showing of the prior art teachings for this
limitation.

*(xii) (g) after receipt of said transmission of step (f), transmitting a
notice of said received value representative of each of said at
least one response to a second user*

Petitioner argues that Barbosa discloses that the server transmits a
notice of the received values representative of each response back to the user
of the device. Pet. 28–29. Petitioner asserts that Barbosa discloses that the
remote server that analyzes the responses can provide “a final output, such
as a report, bid, recommendation, or the like . . . to the user.” *Id.* (quoting
Ex. 1002, 7:56–58) (emphasis omitted). Further, Petitioner argues that
because the report, bid, or recommendation is generated based on the
received responses, the report, bid, or recommendation corresponds to a
notice of the received value representative of each of said at least one
response. *Id.* Therefore, according to Petitioner, the transmission of the
report, bid, or recommendation back to the user is a transmission of a notice
of the received value representative of each received response. *Id.*
Petitioner further argues that claim 19 does not require that the second user
be different from the first user, noting that dependent claim 20 recites that
the second user and first user are the same user. *Id.* at 30. Petitioner’s
arguments are supported by the declaration testimony of Mr. Roman.
Ex. 1005 ¶¶ 140–142.

Patent Owner provides no counterargument. Prelim. Resp. 39–40.

After reviewing the parties' arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(xiii) Summary

We determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 19 would have been obvious over Barbosa.

c. Claim 20

Claim 20, which depends from claim 19, recites "wherein the first user and the second user are a same user." Petitioner maps the first and second user recited by claim 19 to the same user in Barbosa. Pet. 28–30. Patent Owner does not dispute that Petitioner's showing satisfies this limitation of claim 20. Prelim. Resp. 39–40. After reviewing the parties' arguments and evidence, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 20 would have been obvious over Barbosa.

d. Claim 21

For most limitations of claim 21, Petitioner relies on its showing for the corresponding limitations of claim 19. Pet. 30–35. Petitioner, however, provides additional exposition for the limitations of claim 21 that we address below. *Id.* Patent Owner does not address Petitioner's showing regarding claim 21. *See generally* Prelim. Resp.

(i) (a) within a central computer, accessing at least one user data item stored in a recipient computer

Petitioner argues that the recited central computer and recipient computer may be the same computer. Pet. 30 (citing Ex. 1001, claim 22). Further, Petitioner argues that Barbosa's remote server receives responses

from the user device and, therefore, corresponds to a recipient computer. *Id.* (citing Ex. 1002, 7:54–56; 9:3–7; 9:38–40). Petitioner further argues that Barbosa explains that user responses may be stored by the server. *Id.* at 30–31(citing Ex. 1002, 8:46–48. Petitioner argues that, therefore, Barbosa discloses that the server may access at least one user data item stored within it. *Id.* at 31. Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 146.

Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(ii) (2) receiving within said handheld computing device a transmission of a tokenized questionnaire, including at least one question requesting GPS coordinates and at least one additional question, said tokenized questionnaire comprising a plurality of device independent tokens

Petitioner refers to its arguments and evidence for claim 19 that Barbosa discloses receiving within said handheld computing device a transmission of a tokenized questionnaire, where the tokenized questionnaire comprises a plurality of device independent tokens. Pet. 31. Further, Petitioner argues that Barbosa discloses that the tokenized questionnaire includes one question requesting GPS coordinates and at least one additional question. *Id.* Petitioner quotes Barbosa’s disclosure that “[o]nce a program is opened on the handheld device, the assessor may be asked (e.g., prompted) to identify the job 801 (e.g., location, customer name, date, type of job).” *Id.* at 31–32 (quoting Ex. 1002, 9:54–56) (emphasis omitted). Further, Petitioner argues that Barbosa discloses identifying the location using GPS coordinates. *Id.* (citing Ex. 1002, 12:30–32). According to Petitioner, it would have been obvious to an ordinarily skilled artisan that

such GPS coordinates may have been entered in response to a question requesting them. *Id.* Petitioner further argues that Barbosa discloses asking and receiving responses to additional questions, such as “customer name, date, type of job,” and others, such as “ask[ing] the representative to identify the problem or type of assessment.” Ex. 1002, 6:59–67, 8:54–63, 9:54–56. Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 148.

Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(iii) (6) transmitting said stored at least one value representative of said GPS coordinates and said at least one response stored within said handheld computing device to said recipient computer

Petitioner refers to its arguments and evidence for claim 19 that Barbosa discloses transmitting responses stored by the handheld device to the remote server. Pet. 33. Petitioner further argues that the responses stored by the handheld device, which are transmitted to the remote server, include values representative of GPS coordinates as well as responses to questions. *Id.* at 33–34. In addition, Petitioner cites Barbosa’s disclosure that “GPS coordinates associated with the collected data may also be transmitted to the server with the collected data.” *Id.* at 34 (quoting Ex. 1002, 12:28–30). Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 155.

Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(ix) (7) storing within said recipient computer any of said transmitted GPS coordinates and said at least one value representative of said at least one response, thereby creating said at least one user data item stored in said recipient computer

Petitioner argues that Barbosa discloses that the remote server stores user responses, including transmitted GPS coordinates and responses to questions, thereby creating a user data item stored in the server. Pet. 34 (citing Ex. 1002, 8:46–48). Petitioner further argues the remote server is the recipient computer. *Id.* Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 156. Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(v) (b) forming a visually perceptible report from any of said at least one stored user data item.

Petitioner argues that Barbosa discloses that the remote server may form a visually perceptible report based on the stored user data item. Pet. 34 (citing Ex.1002, 8:46-48). Petitioner asserts that Barbosa discloses that the remote server that analyzes the responses can provide “a final output, such as a report, bid, recommendation, or the like . . . to the user.” *Id.* at 34–35 (quoting Ex. 1002, 7:56–58). Petitioner cites Barbosa’s disclosure that “the handheld device may provide output to the [user] (which may have been received from the remote processor) that can be in the form of an estimate or analysis and may be provided to the client.” *Id.* (quoting Ex. 1002, 9:10–14) (emphasis omitted). Petitioner argues that an ordinarily skilled artisan would have understood Barbosa’s output to be visually perceptible so that a user could see the information. *Id.* at 35. Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 157.

Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(vi) Additional limitations.

For the additional limitations of claim 21 not addressed above, we have reviewed the parties’ arguments and evidence for those limitations (Pet. 30–34, Prelim. Resp. 37–40), and we find Petitioner provides a sufficient showing the prior art teachings for those limitations.

(vii) Summary.

We determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 21 would have been obvious over Barbosa.

e. Claim 22

Claim 22, which depends from claim 21, recites “wherein said central computer and said recipient computer are a same computer.” Petitioner maps both the recited central computer and the recipient computer to Barbosa’s remote server. Pet 30–31, 35. Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 146. Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 22 would have been obvious over Barbosa.

f. Claim 1

For most limitations of claim 1, Petitioner relies on its showing for corresponding limitations of claim 19. For the limitations of claim 1 addressed below, Petitioner provides additional exposition.

(i) (a) creating a questionnaire comprising a series of questions customized for a location

Petitioner argues that Barbosa discloses creating a questionnaire comprising a series of questions. Pet. 36. Further, Petitioner argues that Barbosa discloses that its questionnaire may be customized for a location. *Id.* Petitioner asserts that for an “environmental catastrophe,” Barbosa discloses, “[a]ssessors equipped with handheld devices are assigned/ deployed to specific positions of the affected environment.” *Id.* (quoting Ex. 1002, 12:1–3) (emphasis omitted). Further, Petitioner quotes Barbosa’s disclosure that “[a]t their respective positions, assessor[s] are provide[d] a template from the remote server 1302 comprising unique/updated instructions for their respective assessment of the position (e.g., data collection instructions).” *Id.* (quoting Ex. 1002, 12:11–14) (emphasis omitted). Petitioner argues that because the assessors are at different positions, and each is provided with a unique template/questionnaire, Barbosa discloses this limitation. *Id.*

Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 161. Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(ii) (g) transmitting at least a portion of said response from the user to a server in real time via a network

Petitioner argues that Barbosa discloses transmitting user responses in real time via a network to the remote server. Pet. 37. Petitioner quotes Barbosa’s disclosure that: “[r]ealtime analysis of data obtained may also be undertaken by remote processor (e.g., server . . .).” *Id.* (quoting Ex. 1002,

7:54-56) (emphasis omitted). Petitioner also quotes Barbosa’s disclosure that “two-way communication between remote computing means (e.g., servers, desktop computers) and handheld data management devices to facilitate real-time access to remote programs, assistance and/or information related to the field assessment being undertaken by using a handheld data management device user.” *Id.* (quoting Ex. 1002, at [57]). Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶ 167. Patent Owner provides no counterargument. Prelim. Resp. 37–40. After reviewing the parties’ arguments and evidence, we find Petitioner provides a sufficient showing of the prior art teachings for this limitation.

(iii) Additional limitations.

For the limitations of claim 1 not addressed above, we have reviewed the parties’ arguments and evidence for those limitations (Pet. 35–37; Prelim. Resp. 37–39), and we find Petitioner provides a sufficient showing for those limitations.

(iv) Summary.

We determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 1 would have been obvious over Barbosa.

3. Asserted Obviousness of Claims 1 and 19–22 over Barbosa and Bandera
a. Bandera

Bandera discloses a system for providing time and location specific advertising via the Internet. Ex. 1004 [54]. Bandera’s system selects an advertising object to be displayed within a web page based on the geographic location of the user or the time of day. *Id.* at 2:35–41. Bandera

discloses that “[c]omputer program code for carrying out operations of the present invention is preferably written in an object oriented programming language such as JAVA®, Smalltalk, or C++.” *Id.* at 5:26–28.

b. Discussion

Petitioner argues that if we do not determine that claims 1 and 19–22 would have been obvious over Barbosa alone, we should hold that those claims would have been obvious over Barbosa and Bandera. Pet. 38. Petitioner suggests that the combination of Bandera with Barbosa would remedy any deficiency that we might find with Barbosa’s disclosure of device independent tokens. *Id.* at 37–40. Petitioner further provides reasons why it contends an ordinarily skilled artisan would combine Barbosa and Bandera. *Id.* at 38–39.

Petitioner’s arguments are supported by the declaration testimony of Mr. Roman. Ex. 1005 ¶¶ 169–171.

Patent Owner argues that neither Barbosa nor Bandera teaches the use of device independent tokens on a handheld device. Prelim. Resp. 42. Further, Patent Owner argues Barbosa’s Java implementation could not have read a GPS receiver and maintained device independence of its questionnaire as required by claim 1. *Id.* Patent Owner further argues an ordinarily skilled artisan acting at the time of the invention would have had no incentive to create an operating system that would need to be separately compiled for each different handheld computer model and then further develop a mechanism for creating a tokenized questionnaire with device independent tokens that could, only then, be executed on different devices without recompiling. *Id.* at 41. Patent Owner relies solely on attorney argument to support its assertions. *Id.* at 41–42.

This asserted ground, based on Barbosa and Bandera, relies on the same teachings from those references as Petitioner's first ground, which is based solely on Barbosa. Pet. 38–40. The only difference is that instead of relying on Bandera as evidence of what an ordinarily skilled artisan would have known when considering Barbosa's teachings regarding Java, as Petitioner does with its first ground, for this ground, Petitioner expressly combines Barbosa's and Bandera's teachings. *Id.* After reviewing the parties' arguments and evidence, we determine that Petitioner has set forth a sufficient showing for combining the two references. Pet. 38–39. Patent Owner's argument that an ordinarily skilled artisan would not have created an operating system that needs to be separately compiled for each different type of handheld computer is conclusory and based solely on attorney argument, which we do not find persuasive at this juncture. Prelim. Resp. 41. Regarding the sufficiency of Petitioner's showing that Bandera and Barbosa teach or suggest each of the limitations of claims 1 and 19–22, *see supra* Part II.E.3. (discussion regarding Barbosa and Bandera's teachings).¹²

4. Asserted Obviousness of Claim 7 over Barbosa and Falls

a. Falls

Falls provides a system and method for facilitating disconnected mobile computing. Ex. 1017, 3:15–17. Falls discloses that, with its system, prior to disconnection of a mobile computer, network administrators or users select data that should be copied from a network to a mobile computer by

¹² As mentioned above, in the first ground, Petitioner relies on Bandera as evidence of the knowledge of an ordinarily skilled artisan. Pet. 23–25. For the second ground, Petitioner relies on the same disclosures in Bandera, but as teachings that Petitioner combines with Barbosa. *Id.* at 38–40.

identifying one or more target database subtrees. *Id.* at 3:17–21. Further, Falls discloses that, during disconnected operation of the mobile computer, its system presents the user with a “virtual network” environment that is consistent in use and appearance with the selected portion of the actual network. *Id.* at 3:21–25.

b. Claim 7

After reviewing the parties’ arguments and evidence, we do not discern at this stage of the proceedings that Petitioner has sufficiently demonstrated that the prior art teaches the two limitations of claim 7 that we address below.

(i) (b) automatically transferring said designed questionnaire to at least one loosely networked computer

Petitioner argues that Barbosa transfers designed questions to device 10. *Id.* Further, Petitioner argues that the transfer of these designed questions to device 10 occurs automatically. *Id.* at 43. But with respect to the purportedly automatic nature of this transfer, Petitioner provides no analysis. *Id.* Instead, Petitioner merely states: “[t]he transfer occurs automatically as disclosed, for example, at 3:28–43; 6:24–39; 6:64–67.” *Id.* The purportedly automatic transfer of a questionnaire to device 10, however, is not evident from those cited passages, which read as follows:

It is another aspect of the present invention to provide methods for field assessment data synchronization and/or delivery using wireless capabilities resident in handheld personal computing devices. Data may be synchronized with a server over a network using wireless radio transmission, or directly to a computer workstation using wireless infrared or radio transmission or connected means (e.g., modems, cradles, docking stations). (Ex. 1002, 3:28–36.)

It is another aspect of the present invention to provide for two-way communication between remote computing means (e.g., servers, desktop computers) and handheld data management devices to facilitate real-time access to remote programs, assistance and/or information related to the field assessment being undertaken by using a handheld data management device user. (Ex. 1002, 3:37–43)

Communications module 42 provides wireless realtime access to servers and personnel in support of assessments, and may also provide more traditional information available over networks, (e.g., e-mail, chat, Intranet and Internet information). Preferably, no plugging in or dialing up i[s] needed through integration of the communication module 42 into a handheld device. As shown in FIG. 4, the device 10 can preferably communicate with a PC 36 through an infrared communications link 38 to exchange and update information both ways. This feature makes it particularly easy to update and change personal schedules as needed. The device 10 may include an integrated modem 40 to provide data transfer functions and for remote connectivity. This feature allows a person (such as a supervisor, counselor or service representative) remote from the user to provide tasks, answers to queries, notes and other information for use and display on the users device 10 using standard telecommunications technology (e.g., wired and wireless GSM, CDMA, CDPD, and paging networks). (Ex. 1002, 6:24–39.)

Interactivity may also be provided to remote resources when two-way communication is provided between the device and a remote server and/or support representative. (Ex. 1002, 6:64–67).

Pet. 43.

The cited testimony from Mr. Roman’s declaration also fails to explain why the transfer is automatic. Instead, Mr. Roman merely testifies:

The transfer occurs automatically as disclosed, for example, at 3:28–43; 6:24–39 (“Preferably, no plugging in or dialing i[s] needed through integration of the communication module 42 into

a handheld device”); 6:64–67 (“Interactivity may also be provided to remote resources when two-way communication is provided between the device and a remote server and/or support representative.”).

Ex. 1005 ¶ 176.

Accordingly, we do not discern that Petitioner’s showing regarding the prior art teachings of this limitation is sufficient.¹³

(ii) (f) making available via the Internet any responses transferred to said central computer in step (e)

Petitioner argues that “Barbosa discloses this limitation. See VII.C.ii.A.” Pet. 45. In Section VII.C.ii.A. of the Petition, Petitioner argues “Barbosa provides ‘[a]n interactive question and answer session.’ Ex. 1002, 6:62, 9:38-40, 12:55-57; see also 7:12–22, 7:41–63, FIGs. 6 and 7 (steps 709, 710).” *Id.* at 42. For the “making available” limitation, Petitioner further argues “Barbosa discloses making the responses available via the Internet. Ex. 1002, 12:55–57, 7:12–22, 7:41–63, FIGs. 6 and 7 (steps 709, 710); Ex. 1005 ¶ 185.” Pet. 45. Petitioner, however, does not explain how the portions of Barbosa that it cites as disclosing making available responses on the Internet actually disclose making responses transferred to the central computer in step (e) available via the Internet. *Id.* And it is not evident from those cited portions of Barbosa how the responses transferred to the

¹³ For the recited “loosely networked computer,” Petitioner argues that data is automatically transferred when a connection is available for the handheld device. Pet. 43–44. That argument does not appear to be directed to the automatic transfer of the designed questionnaire, but even if it were so intended, it also relies solely on the conclusory testimony of Mr. Roman for support. *Id.*

central computer are made available via the Internet. The cited portions of text from Barbosa read:

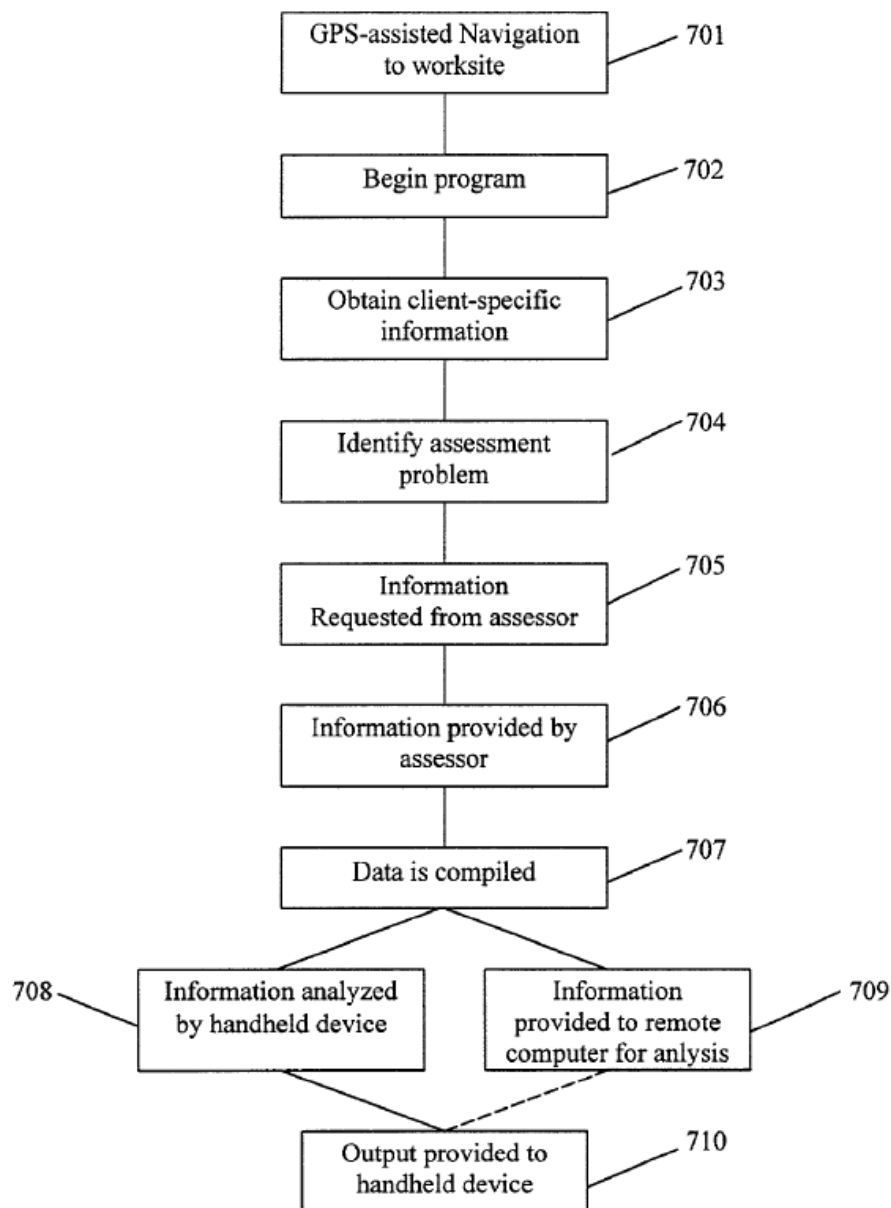
the remote computer may be connected to the user's computer through a LAN or a WAN, or the connection may be made to an external computer (for example, through the Internet using an Internet Service Provider). (12:54–58)

Client programs and Server programs are often part of a larger program or application. Relative to the Internet, a Web browser is a client program that requests services (the sending of Web pages or files) from a Web server (which technically is called a Hypertext Transport Protocol or HTTP server) in another computer somewhere on the Internet. Similarly, a computer with TCP /IP installed allows client requests for files from 20 File Transfer Protocol (FTP) servers in other computers on the Internet. (7:12–22.)

A user in the field may utilize a handheld device 10 for assessment of a field problem. The user can execute a[n] industry-specific program on the handheld device 10 related to the problem being addressed. The user interacts with the handheld executed program to obtain an initial field assessment. The program would prompt the user for input of data related to the problem. During program execution, the user may access remote resources (e.g., information, data, assistance) via wireless communication systems 51 and networks 55. Information may be obtained from a server 58 located at the user's enterprise, or from other network 55 resources available to the user (e.g., Web pages provided/obtained over the Internet). Realtime analysis of data obtained may also be undertaken by remote processor (e.g., server, desktop PC). At completion of data processing by a handheld device remote processor 10 a final output, such as a report, bid, recommendation, or the like may be provided to the user. The user may use the information to counsel a third party, render a final output for the third party, or to troubleshoot equipment. The remote processor (e.g., 58) may also be used as a collection point for data provided from multiple users (e.g., 10, 10'). (7:41–63.)

It is not evident from any of these cited passages that Barbosa makes responses transferred to the central computer available over the Internet.

Barbosa Figure 6, shown above (see Section II.E.2.a), similarly does not indicate that Barbosa makes responses sent to a central computer available over the Internet. Nor does Barbosa Figure 7, reproduced below:



Barbosa Figure 7 is a flow chart related to a construction industry application. Ex. 1002, 8:49–50.

The paragraph in Mr. Roman’s declaration that Petitioner cites to support its argument that Barbosa makes the pertinent responses available on the Internet (Ex. 1005 ¶ 185) also does not explain how Barbosa purportedly teaches or suggests “making available via the Internet any responses transferred to said central computer in step (e).” In pertinent part, Mr. Roman’s testimony merely repeats Petitioner’s assertion that “Barbosa discloses making the responses available via the Internet. Ex. 1002 at 12:55–57; *see also* 7:12–22; 7:41–63; FIGs. 6 and 7 (steps 709 and 710).” Ex. 1005 ¶ 185.

Accordingly, we do not discern that Petitioner’s showing regarding the prior art teachings of this limitation is sufficient.

In view of the foregoing, Petitioner does not appear to have established a reasonable likelihood of prevailing on its assertion that claim 7 would have been obvious over Barbosa and Falls.

5. Asserted Obviousness of Claims 1, 2, 5, and 19–22 over Hancock
a. Hancock

Hancock discloses an internet based geographic location referencing system. Ex. 1003 [75]. The disclosed system provides informational services to users based on their geographic location. *Id.* at 1:15–20. In Hancock, Go2 Application program 1500 is used in portable-computing devices 1302. *Id.* at 26:30–34. Go2 Application 1500 includes web browser module 1302.

b. Discussion

We do not discern that the Petition sufficiently demonstrates the obviousness of claims 1, 2, 5, and 19–22 over Hancock at this stage of proceeding. In particular, Petitioner’s showing regarding Hancock’s disclosure of the use of device independent tokens appears insufficient. Petitioner argues that it would have been obvious to an ordinarily skilled artisan to implement the Hancock’s Go2 Application using Java because an ordinarily skilled artisan would have understood that the Java programming language is a programming language that provides device independence. Pet. 51. Petitioner further argues that because it would have been an obvious design choice to implement the Go2 Application using Java, and because an ordinarily skilled artisan would have understood that Java provides device-independent code, the ordinarily skilled artisan would have found it obvious to implement the Go2 Application using Java such that it would provide a plurality of device independent tokens. *Id.* at 51–52. Both the Petition and the cited declaration testimony from Mr. Roman, however, provide limited analysis and evidence to support this contention. *Id.*; Ex. 1005 ¶¶ 132–133, 195. In view of the foregoing, Petitioner does not appear to have established a reasonable likelihood of prevailing on its assertion that claims 1, 2, 5, and 19–22 would have been obvious over Hancock.

6. Asserted Obviousness of Claims 1, 2, 5, and 19–22 over Hancock and Bandera

Petitioner argues that if we do not determine that claims 1 and 19–22 would have been obvious over Hancock alone, we should then hold that those claims would have been obvious over the combination of Hancock and Bandera. Pet. 68. Petitioner suggests that the combination with Bandera would remedy any deficiency that we might find regarding Hancock’s

teaching or suggestion of device independent tokens and Java. *Id.* at 68–71. Petitioner further provides reasons it contends an ordinarily skilled artisan would have combined Barbosa’s disclosure of Java with Hancock. *Id.* at 69–70.

Patent Owner argues that neither Hancock nor Bandera discloses device independent tokens, at least some of which are executable. Prelim. Resp. 47. Patent Owner also argues that Petitioner has not explained how a program written in Java on a handheld device could read a GPS device in a device independent manner. *Id.* at 48.

We determine that Petitioner has demonstrated a reasonable likelihood of prevailing with its assertion that claims 1 and 19–22 would have been obvious over Hancock and Bandera. Petitioner’s arguments on the teachings of the prior art and rationale for the combination are supported by the declaration testimony of Mr. Roman, which we find sufficient for the teachings of the prior art for purposes of institution.^{14 15} Regarding Patent Owner’s argument that Petitioner has not explained how a program written

¹⁴ We note that Petitioner does not cite to support other than expert testimony for this contention or identify specific Java code or features that it contends constitutes the index, instruction, or command. Patent Owner has not challenged Petitioner’s showing on this basis, and, at this juncture, we find that Petitioner demonstrates a reasonable likelihood of success on this challenge based on expert testimony. We make no determination as to Petitioner prevailing on this showing under the preponderance of the evidence standard at trial.

¹⁵ Petitioner maps the recited handheld device to Hancock’s client computer 1404 and notes that Hancock discloses that portable computing device 1302 comprises client computer 1404. Pet. 46. Hancock further discloses that personal digital assistants could be used to implement portable computing device 1302. Ex. 1003, 25:29–33.

in Java could read GPS in a device independent manner, none of the challenged claims recite such a limitation.

7. Asserted Obviousness of Claim 7 over Hancock and Falls

After reviewing the parties' arguments and evidence, we do not discern that the Petition sufficiently demonstrates the prior art teachings for the same two limitations discussed in the ground for Barbosa and Falls, discussed above. *See below.*

(i) (b) automatically transferring said designed questionnaire to at least one loosely networked computer

The Petition does not appear to sufficiently demonstrate that Hancock and Falls teach or suggest *automatically* transferring a designed questionnaire to what Petitioner argues is a loosely networked computer. Pet. 73–74. Petitioner does not explain how Hancock and Falls teach or suggest *automatically* transferring a designed questionnaire to at least one loosely networked computer. In its discussion of Hancock's teachings regarding this limitation, Petitioner does not address how any transfer of a designed questionnaire in Hancock is automatic. Petitioner states the following:

As explained in VII.D.i.B-C, Hancock discloses transferring the designed questions to at least one computer having a GPS integral thereto. *See, e.g.,* Ex. 1003, Abstract; Ex. 1005 ¶ 238.

Hancock addresses services provided via the Internet to users in a mobile environment. *See e.g.,* Ex. 1003, Abstract. As previously discussed, it was well known at the time that such an environment was “loosely networked” because unreliable wireless connections intermittently disconnected. While Hancock does not provide express teachings directed to handling intermittent network connections, as explained in VII.C.ii.C, Falls provides such additional details for dealing with intermittent connections in such environments, disclosing a more

specific teaching of a loosely connected network.
Ex. 1005 ¶¶ 239–40.

Accordingly, to the extent Hancock’s disclosure does not disclose or render obvious the “loosely networked” limitation, it would have been obvious through Hancock in view of Falls.
Ex. 1005 ¶ 241.

Pet. 73 (emphases omitted).

The cited paragraphs of Mr. Roman’s declaration also do not address how Hancock teaches or suggests making any transfer of a designed questionnaire to device 10 automatic. Mr. Roman testifies that Hancock describes automatically transmitting an electronic data packet to the server. Ex. 1005 ¶ 238. Claim 7, however, requires that the transfer be to the loosely networked computer, which Petitioner maps to device 10. Further, Mr. Roman maps the recited questionnaire to the Go2 Application software. Ex. 1005 ¶ 191. Mr. Roman cites Hancock Figure 18 as disclosing the transfer of this software to the handheld device. *Id.* ¶ 190. Steps 1806, 1808, 1824, and 1811 of Hancock Figure 18 indicate that the transfer of the Go2 Application software to the handheld device is not automatic—the user is queried and must agree to the transfer before the transfer occurs. Ex. 1003, Fig. 18.

Accordingly, we do not discern that Petitioner’s showing regarding the prior art teachings of this limitation is sufficient.

(ii) (f) making available via the Internet any responses transferred to said central computer in step (e)

Petitioner argues that “Hancock discloses this limitation. See VII.F.ii.A.” Pet. 74. In Section VII.F.ii.A. of the Petition, Petitioner argues that “Hancock . . . explains that all communication between the portable-computing device 1302 and the primary server 1314 can occur via the

Internet.” Pet. 72–73 (citing Ex. 1003, 24:39-41, Fig. 13). For this limitation, Petitioner also argues that “Hancock explains that communication between the device and server can occur via the Internet.” Pet. 74 (citing Ex. 1003, 24:39–41, Fig. 13; Ex. 1005 ¶¶ 245–246). The cited testimony by Mr. Roman provides no further discussion, but instead states in a conclusory manner that “Hancock explains that communication between the portable computing device 1302 and the primary server 1314 can occur via the Internet.” Ex. 1005 ¶ 246 (citing Ex. 1003, 24:39-41, Fig. 13), *see also* ¶ 236. Petitioner’s arguments and Mr. Roman’s testimony merely address how Hancock transfers responses to primary server 1314, which Petitioner argues is the central computer. Neither explains how Hancock makes available via the Internet any responses that were transferred to primary server 1314 (the identified central computer). Accordingly, we do not discern that Petitioner’s showing regarding the prior art teachings of this limitation is sufficient.

In view of the foregoing, Petitioner does not appear to have established a reasonable likelihood of prevailing on its assertion that claim 7 would have been obvious over Hancock and Falls.

III. CONCLUSION

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood of prevailing on assertions that at least one challenged claim is unpatentable.

IV. ORDER

Accordingly, it is:

ORDERED that, pursuant to 35 U.S.C. § 314, *inter partes* review of claims 1, 2, 5, 7, and 19–22 of the challenged patent is instituted with respect to all grounds raised in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.4(b), *inter partes* review of the challenged patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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