Trials@uspto.gov
571-272-7822

Paper 14
Date: January 25, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AVERY DENNISON RFID COMPANY and AVERY DENNISON RETAIL INFORMATION SERVICES LLC,
Petitioner,

v.

EVRYTHNG LIMITED,
Patent Owner.

IPR2021-01259
Patent 9,794,321 B2

Before NEIL T. POWELL, SHARON FENICK, and STEPHEN E. BELISLE, *Administrative Patent Judges.*

FENICK, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

Avery Dennison RFID Company and Avery Dennison Retail Information Services LLC ("Petitioner") filed a Petition (Paper 3, "Pet.") requesting *inter partes* review of claims 1–29 (the "challenged claims") of U.S. Patent No. 9,794,321 B2 ("the '321 patent"). Patent Owner

EVRYTHNG Limited filed a Preliminary Response. Paper 11 ("Prelim. Resp.").

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2021). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless the Director determines . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

For the reasons that follow, we institute an *inter partes* review as to the challenged claims of the '321 patent.

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies that Avery Dennison RFID Company and Avery Dennison Retail Information Services LLC are subsidiaries of Avery Dennison Corporation. Pet. 1. Patent Owner identifies only itself as a real party in interest, and in an update discloses that EVERYTHNG Limited was acquired by and is a wholly owned subsidiary of Digimarc Corporation. Paper 5 (Patent Owner's Mandatory Notices), 1; Paper 13 (Patent Owner's Updated Mandatory Notices), 1.

B. Related Matters

Petitioner identifies *Avery Dennison RFID Company et al. v EVRYTHNG Limited*, Case No. 1:21-cv-10719-LTS (D. Mass.) ("the Massachusetts Action") as a related matter. Pet. 1–2. Patent Owner also identifies this case as a related matter. Paper 5, 1.

In its arguments relating to *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"), Patent Owner

additionally makes arguments regarding an action filed by Patent Owner against Petitioner for breach of contract, misappropriation of trade secrets, and unfair competition. Prelim. Resp. 31–36. This case ("the New York Action") is captioned *EVRYTHING Limited v. Avery Dennison Retail Information Services, LLC and Avery Dennison RFID Company*, No. 1:21-cv-04411-LJL (S.D.N.Y.). Ex. 2002; Ex. 2003.

C. The '321 Patent

The '321 patent relates to a computing system to provide access to a specific computer application to an end user, based on an object identifier and contextual information. Ex. 1001, code (57). The '321 patent describes several embodiments of the invention with reference to Figure 1, reproduced below, which shows user application 12 running on user device 10, context-aware redirector server 40, rules database 42, and run time application environments 60, which are preferably HTTP addresses of applications 70. *Id.* at 5:13–15, 5:47–55, 6:3–9, 6:65–7:3.

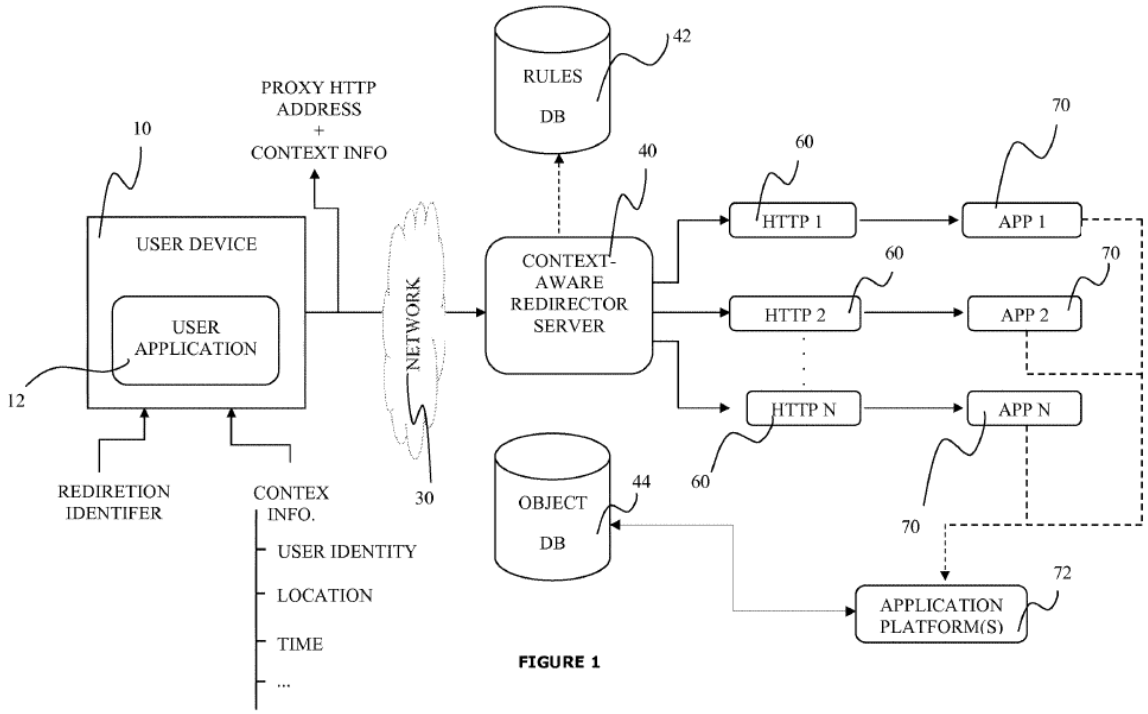


FIGURE 1

Figure 1 relates to the mapping for a user with user device 10 of a tagged real-world object scanned by the user to a context-aware application 70. *Id.* at 5:44–46, 5:60–64. As shown in Figure 1, user application 12 is used to scan a redirection identifier comprising an object identifier and an address of context-aware redirector server 40 from a tag on an object. *Id.* at 5:51–55, 5:58–60. "[R]edirection identifier 18 can be any unique identifier such as an alphanumerical identifier, a bar code or any other type of identifier allowing [unique identification of] the object and context-aware [redirection] server [40]. *Id.* at 5:55–58. In one embodiment the redirection identifier is a unique short URL (uniform resource locator) associated to an object and comprising the address of the context aware redirector server and a short-ID. *Id.* at 8:50–52, 8:58–62, 9:1–5. The redirection identifier may embody a unique identifier of the object and an HTTP address of a server. *Id.* at 13:26–30.

User application 12 is configured to read redirection identifier 18 and capture contextual information, to extract the address of context aware redirector server 40 and to send an application request comprising the object identifier and the contextual information to context aware redirector server 40 via network 30. *Id.* at 6:2–9. Contextual information may include user identity, time and location of the request, or any other information. *Id.* at 6:9–12.

The inclusion of context information allows multiple target application URLs to be "attached" to a single source URL, where the target URL selection occurs according to a pre-defined set of redirection rules and the context from which the URL is accessed. *Id.* at 8:10–13. "In other words, that means that different users accessing exactly the same URL at exactly the same location and time will land on entirely different Web

applications. Even if the same user accesses the same unique URL but at different time or from a different location, they could land on various, independent target URL, thus entirely different applications." *Id.* at 8:13–19.

Rules database 42 holds predefined rules mapping object identifiers along with contextual information (e.g., user ID, location, time) to entry points for application runtime environments linking to corresponding different applications. *Id.* at 6:66–7:3, 8:53–56, 9:29–34. For example, when different contextual information (a user, location or time) is provided, the same short-URL encoded on the tag on the object may be associated with different target URIs (uniform resource identifiers) by rules utilizing this contextual information. *Id.* at 8:64–9:16, 10:25–53.

D. Illustrative Claims

Of the challenged claims, claims 1, 22, and 29 are independent. Claim 1 and 22 are illustrative and reproduced below.

> 1. A computer-implemented method, in a network comprising a plurality of objects, each of said objects having an object identifier associated therewith, each object comprising a tag, wherein the tag associated with each particular object in said network encodes: (i) said object identifier for said particular object, and (ii) an address or identifier resolvable to a location in said network, the method comprising:
>
> (A) a context-aware redirection server maintaining in a rules database, a set of rules comprising, for each object identifier of a plurality of object identifiers, a corresponding mapping to a plurality of entry points for a corresponding plurality of independent computer applications;
>
> (B) receiving, from a user device via a data network, and at said context-aware redirection server, a request comprising: (i) a particular object identifier, and (ii)

contextual information from said user device, said context-aware redirection server and said particular object identifier having been determined from a specific object of said plurality of objects, said particular object identifier comprising an identifier associated with the specific object;

(C) determining, at said context-aware redirection server, a specific entry point of said plurality of entry points associated with said particular object identifier, said determining being based on: (i) the particular object identifier, and said contextual information associated with the request, and (ii) said set of rules in said rules database, said specific entry point corresponding to a specific computer application of said plurality of independent computer applications associated with said particular object, wherein said particular object identifier and said contextual information associated with the request are mapped by said set of rules to said specific entry point; and then

(D) said context-aware redirection server redirecting said user device or providing said user device access to said specific computer application via said specific entry point.

22. A computer-implemented method in a network comprising a plurality of objects, each of said objects comprising a tag, wherein the tag associated with each particular object in said network encodes: (i) a object identifier for said particular object, and (ii) an address or identifier resolvable to a location in said network, and wherein said object identifier for each said object is unique within the network, the method comprising:

(A) receiving, at a context-aware redirection server in said network, via a data network, and from a user device, a request comprising: (i) a particular object identifier, and (ii) contextual information, said particular object identifier and said context-aware redirection server having been determined from a particular object of said plurality of objects, said particular object identifier comprising a unique identifier associated with the particular object;

(B) determining, at said context-aware redirection server, a specific entry point of a plurality of entry points associated with said particular object identifier, said specific entry point corresponding to a specific computer application of a plurality of independent computer applications associated with said particular object, said determining being based on: (i) the particular object identifier, and (ii) said contextual information associated with the request, and (iii) pre-defined rules from a set of rules mapping object identifiers and contextual information to entry points and corresponding computer applications of said plurality of independent computer applications, said pre-defined rules being in a rules database operatively accessible by said context-aware redirection server; and

(C) said context-aware redirection server redirecting said user device or providing said user device access to said specific computer application via said specific entry point.

E. Prior Art and Asserted Grounds

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1–7, 9–11, 13–29	102	Lim[2]
1–29	103	Lim, Chor[3]

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103 for applications filed on or after March 16, 2013. Petitioner uses December 23, 2012 as the priority date "without conceding that the '321 patent is entitled to it" and therefore applies pre-AIA version so of 35 U.S.C. §§ 102 and 103. Pet. 5–6; Ex. 1001, code (60), 1:8–10 (claiming benefit of a provisional application filed Dec. 23, 2012); *but see* Ex. 1003 ¶ 36. Patent Owner does not comment on whether this is correct. For the purpose of institution, we apply the pre-AIA version of 35 U.S.C. §§ 102 and 103. Our analysis and determination remain the same under either the pre- or post-AIA versions of 35 U.S.C. §§ 102 and 103.

[2] Lim et al., U.S. Patent Application 2012/0223131 A1, pub. Sept. 6, 2012 (Ex. 1004).

[3] Chor, U.S. Patent Application 2012/0036226 A1, pub. Feb. 9, 2012 (Ex. 1013).

Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1–7, 9–11, 13–29	103	Fitzpatrick[4], Herzig[5]
8	103	Lim, Rabetge[6]
8	103	Lim, Chor, Rabetge
8	103	Fitzpatrick, Herzig, Rabetge
12	103	Lim, Makower[7]
12	103	Lim, Chor, Makower
12	103	Fitzpatrick, Herzig, Makower

In addition, Petitioner submits the Declaration of Dr. Oded Gottesman (Ex. 1003). At this stage, Patent Owner has not submitted an expert declaration.

III. DISCRETION TO INSTITUTE

Patent Owner argues that we should exercise our discretion not to institute in light of the Massachusetts Action and the New York Action. Prelim. Resp. 30–36.

The Board has discretion not to institute trial. *See* 35 U.S.C. § 314(a) (2018) (authorizing, but not requiring, institution of a trial under particular circumstances); *cf. Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion."); *Harmonic Inc. v. Avid Tech, Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (explaining that under § 314(a), "the PTO is

[4] Fitzpatrick et al., U.S. Patent Application 2008/0201305 A1, pub. Aug. 21, 2008 (Ex. 1007).
[5] Herzig, U.S. Patent Application US 2011/0000958 A1, pub. Jan. 6, 2011 (Ex. 1006).
[6] Rabetge et al., U.S. Patent Application 2009/0125612 A1, pub. May 14, 2009 (Ex. 1011).
[7] Makower et al., U.S. Patent Application 2002/0184507 A1, pub. Dec. 5, 2002 (Ex. 1010).

permitted, but never compelled, to institute an [*inter partes* review] proceeding").

Our precedential and informative decisions make clear that the Board may exercise discretion not to institute a trial before the Board in light of the advanced state of ongoing, parallel litigation. *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential) ("*NHK Spring*"); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"); *see also Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 (PTAB May 13, 2020) (informative) (denying institution in light of an ongoing, parallel district court proceeding) ("*Fintiv II*"); *Sand Revolution II, LLC v. Cont'l Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 (PTAB June 16, 2020) (informative) ("*Sand Revolution*") (applying *Fintiv* factors in light of ongoing, parallel district court litigation and instituting trial).

In *NHK Spring*, the Board considered the advanced state of a parallel district court proceeding as a factor favoring denial of institution of an *inter partes* review proceeding. *NHK Spring*, Paper 8 at 19–20. The Board later identified a non-exclusive list of factors to consider when applying *NHK Spring* to determine if we should exercise discretion to not institute a trial in light of a parallel proceeding in an advanced state. *Fintiv*, Paper 11 at 5–6.

Patent Owner discusses both the New York Action and the Massachusetts Action when reviewing the *Fintiv* factors and arguing we should exercise discretion to deny. Prelim. Resp. 31–36. In determining whether to exercise discretion to deny institution under 35 U.S.C. § 314(a), we consider these factors set forth in *Fintiv*. *Fintiv*, Paper 11 at 9.

Factor 1. Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.

Fintiv indicated that, in previous Board decisions, the existence of a district court stay pending Board resolution of an *inter partes* review has weighed strongly against discretionary denial, while a denial of such a stay request sometimes weighs in favor of discretionary denial. *Fintiv*, Paper 11 at 6–8. Patent Owner argues that there is no stay or request to stay filed in either case, and that it does not intend to request a stay.[8] Prelim. Resp. 31. Patent Owner speculates that Petitioner is unlikely to request a stay as well. *Id.* at 31–32.

Given the circumstances of this case, we decline to speculate, at this stage, what either district court might do regarding a motion to stay, should one be requested. *See Sand Revolution*, Paper 24 at 7 ("In the absence of specific evidence, we will not attempt to predict how the district court in the related district court litigation will proceed because the court may determine whether or not to stay any individual case, including the related one, based on a variety of circumstances and facts beyond our control and to which the Board is not privy."); *Fintiv II*, Paper 15 at 12 ("We decline to infer, based on actions taken in different cases with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here. This factor does not weigh for or against discretionary denial in

[8] We note that in the original complaint in the New York Action, Patent Owner alleged that the Massachusetts Action was stayed pursuant to 35 U.S.C. § 315(a)(2), but it does not appear that a stay was granted in the Massachusetts Action, and this allegation does not appear in the redacted version of the First Amended Complaint in the New York Action that is Exhibit 2003. Ex. 2002, 34 (paragraph 107); Ex. 2003.

this case."). This factor does not weigh for or against exercising discretion to deny institution.

Factor 2. Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision.

Patent Owner acknowledges that neither the New York Action nor the Massachusetts Action has a set trial date. Prelim. Resp. 32. Petitioner, addressing only the Massachusetts action, argues only that it was "recently filed" and that "Patent Owner has not yet answered the complaint." Pet. 13.

As no trial date has been set, this factor weighs against exercising discretion to deny institution.

Factor 3. Investment in the parallel proceeding by the court and the parties.

If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact may weigh in favor of denial. *See Fintiv*, Paper 11 at 9–10. On the other hand, if the district court has not issued such orders, this fact may weigh against discretionary denial. *Id.* at 10. Moreover, in evaluating this factor, "[i]f the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution under *NHK*." *Id.* at 11 (footnote omitted).

Patent Owner describes the New York Action as directed to "(1) breach of contract; (2) misappropriation of trade secrets; and (3) unfair competition." Prelim. Resp. 31. The originally-filed complaint confirms this. Ex. 2002, 1, 36, 38, 40, 41, 43. The first amended complaint is directed towards breach of contract, fraudulent concealment, and

misappropriation of trade secrets. Ex. 2003,[9] 1, 55, 60, 72, 74, 85. Patent Owner states that "[e]xpedited discovery has already been conducted" in the New York Action. Prelim. Resp. 32. Patent Owner does not describe, and we do not discern, that such discovery relates to the validity of the '321 patent, or how the validity of the '321 patent will be at issue in the New York Action.

The Massachusetts Action requests, inter alia, a declaratory judgement of non-infringement of the '321 patent. Ex. 2001, 1, 2, 8, 29–32, 38. Petitioner argues that patent validity was not raised as a declaratory judgment claim. Pet. 13. Patent Owner argues that while the validity of the '321 patent has not yet been raised in the Massachusetts Action, it is likely to be raised. Prelim. Resp. 33. However, to date, it appears that no investment with respect to a determination of the validity of the patent has occurred in the Massachusetts Action.

In summary, no parallel investment in either action relating to patent validity has been shown or alleged. This factor weighs against exercising our discretion to deny institution.

Factor 4. Overlap between issues raised in the petition and in the parallel proceeding.

"[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial." *Fintiv*, Paper 11 at 12. "Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under *NHK*." *Id.* at 12–13.

[9] We use the original document page numbers rather than added numbering for this exhibit.

As discussed with respect to the third *Fintiv* factor, there is no indication that invalidity of the '321 patent has yet been asserted in either the New York Action or the Massachusetts Action. Thus, we have no basis on which to determine whether, if patent validity is raised, the same or substantially the same claims, grounds, arguments or evidence will be presented in either the Massachusetts Action or in the New York Action, if the Massachusetts Action is transferred and joined with the New York Action as per Patent Owner's request. *See* Ex. 2004,[10] 4–5; Prelim. Resp. 35.

We therefore weigh this factor against exercising discretion to deny institution.

Factor 5. Whether the petitioner and the defendant in the parallel proceeding are the same party.

Patent Owner argues that the same parties are before us here as are involved in the New York Action and the Massachusetts Action. Prelim. Resp. 33–34; *see* Pet. 1; Paper 5, 1.

Because no trial date is set in the New York and Massachusetts Actions, it appears that, if common invalidity issues regarding the '321 patent are in fact raised, such issues would be resolved in this proceeding first. This factor weighs against discretionary denial.

Factor 6. Other circumstances that impact the Board's exercise of discretion, including the merits.

Additional factors we can consider include the merits.

> For example, if the merits of a ground raised in the petition seem particularly strong on the preliminary record, this fact has favored institution. In such cases, the institution of a trial may serve the

[10] We use the original document page numbers rather than added numbering for this exhibit.

> interest of overall system efficiency and integrity because it allows the proceeding to continue in the event that the parallel proceeding settles or fails to resolve the patentability question presented in the PTAB proceeding.

Fintiv, Paper 11 at 14–15 (footnotes omitted).

To the extent Patent Owner disputes the merits, as we explain below, we find Petitioner has made a strong showing of unpatentability on two separate grounds with respect to at least two of the independent claims, and many of the dependent claims. As we discuss below, Sections IV.D, IV.F, IV.G and IV.H, Petitioner has made a sufficient showing for institution on two of the independent claims and a number of dependent claims in an anticipation ground, and also in an obviousness ground based on different prior art references.

Patent Owner argues, with respect to this factor, that we should consider that "Petitioner is using these proceedings not to protect the integrity of the patent system, but to litigate a much smaller competitor into submission," and that institution would allow this proceeding to be "abused by allowing a larger corporation to gain an unfair advantage over a smaller competitor." Prelim. Resp. 34–35. Patent Owner, with respect to the first *Fintiv* factor, relatedly asserts that Petitioner "has engineered the parallel litigations to force Patent Owner to engage in litigation on multiple fronts. This approach increases litigation costs significantly for Patent Owner, a competitor of modest means compared to Petitioner." *Id.* at 31–32. However, we do not have an evidentiary record before us to support these allegations. Without such record, we are not persuaded that, in the general case, the equities weigh against permitting a petitioner who filed a

declaratory judgment action of non-infringement against a patent to also file a petition challenging the patentability of claims of that patent.

Patent Owner further contends that "Petitioner is fully able to have their validity issues heard in district court as part of the parties' larger dispute," and that "[i]ndeed, Petitioner agreed to have their disputes with Patent Owner heard in the Southern District of New York." *Id.* at 35. In this case, again, Patent Owner does not provide citations to any supporting evidence.

Accordingly, on the basis of the strength of the Petitioner's showing, we find that this sixth factor favors not exercising discretion to deny institution. *See Sand Revolution*, Paper 24 at 13 ("We determine, on this preliminary record, that Petitioner has set forth a reasonably strong case for the obviousness of most challenged claims. Thus, this factor weighs in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a)."); *compare with Fintiv II*, Paper 15 at 17 ("It is sufficient that Patent Owner has pointed out that Petitioner's case, at least as to two of three independent claims, is a close call. . . . The merits, taken as a whole, do not tip the balance in favor of Petitioner and instead also weigh in favor [of] discretionary denial in a balanced assessment of all the circumstances.").

Determination on Discretion to Institute

We consider the above factors and take "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Fintiv*, Paper 11 at 6. After considering the factors outlined in the precedential order in *Fintiv*, we decline to exercise our discretion to deny institution under § 314(a).

IV. ANTICIPATION AND OBVIOUSNESS ANALYSIS

A. Legal Standards

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic*, 815 F.3d at 1363 (citing 35 U.S.C. § 312(a)(3) (requiring [*inter partes*] review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review). Furthermore, Petitioner must explain with particularity how the prior art would have rendered the challenged claims unpatentable. 35 U.S.C. § 312(a)(3); 37 C.F.R. § 42.104 ("The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon."). Under 35 U.S.C. § 103(a), a claimed invention is unpatentable 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. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

A claim is unpatentable under 35 U.S.C. § 102 "if each and every [claim] limitation is found either expressly or inherently in a single prior art reference." *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 851 F.3d 1270, 1273 (Fed. Cir. 2017) (citation omitted). "A claim limitation is inherent in the prior art if it is necessarily present in the prior art, not merely probably or possibly present." *Akamai Techs., Inc. v. Cable & Wireless*

Internet Servs., Inc., 344 F.3d 1186, 1192 (Fed. Cir. 2003) (citing *Rosco, Inc. v. Mirror Lite, Co.*, 304 F.3d 1373, 1380 (Fed. Cir. 2002)).

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR*, 550 U.S. at 406. 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.[11] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Relying on the testimony of Dr. Gottesman, Petitioner contends that at the time of the effective filing date, a person of ordinary skill in the art "would have had a bachelor's degree in computer science, electrical engineering, or a related field, and at least three years of experience with online web services, database systems, and/or related software applications." Pet. 12 (citing Ex. 1003 ¶ 122). Petitioner adds, "[a]dditional education *(e.g.*, masters/doctorate degree(s)) could make up for less practical experience (and *vice versa*)." *Id.*

Patent Owner applies Petitioner's proposed level of skill for the purpose of the Preliminary Response. *See* Prelim. Resp. 6.

[11] Neither the Petition nor the Preliminary Response presents evidence on the fourth *Graham* factor. *See* Pet. 82. We therefore do not consider that factor in this decision.

For purposes of this Decision on Institution, we adopt Petitioner's proposed level of ordinary skill in the art. This level of skill comports with the teachings of the '321 patent and the asserted prior art.

C. Claim Construction

In an *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b), including construing the claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2020). We apply the claim construction standard as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Petitioner presents constructions for "entry point[s]" (recited in independent challenged claims 1, 22, and 29 and certain dependent claims)

and "rules database" (recited in claims 1, 22, and 29). Pet. 18–23. Patent Owner does not address these proposed constructions and specifically notes its belief that, for the purposes of institution, no claim construction is necessary. Prelim. Resp. 6–7.

After considering the parties positions and the record at this time, for the purposes of institution, we determine no claim construction is required. *See Nidec Motor Corp.*, 868 F.3d at 1017.

D. Claims 1–7, 9–11, and 13–29 Anticipation by Lim

Petitioner argues that claims 1–7, 9–11, and 13–29 are anticipated by Lim. Pet. 23–50. Patent Owner presents arguments relating to these contentions. Prelim. Resp. 8–15. For the reasons discussed below, we determine that Petitioner has shown a reasonable likelihood that the Petitioner would prevail with respect to these claims.

1. Lim

Lim relates to dynamically presenting content in response to successive scans of a static code. Ex. 1004, codes (54), (57). In Lim, a user encounters codes such as QR codes, barcodes, alphanumeric text, or other "data, code, or symbology" displayed. *Id.* ¶¶ 17–18. The consumer uses a wireless device to scan, image, or otherwise input the code to retrieve underlying data that contains information used in communications with a computer server system. *Id.* ¶¶ 17–18, 35, 37. The specific computer server system then delivers content to the wireless device. *Id.* ¶¶ 19–22, 35, 37.

In the case of a QR code, the data encoded in the QR code cannot be changed since the underlying data is used in the image generation of the code. *Id.* ¶¶ 6, 17. However, Lim describes a method for different content to be delivered to different users or to the same user at different times or

under different conditions, without having to replace or update the QR code. *Id.* at code (57), ¶¶ 48, 50, 52–53.

If the code is a QR code, the wireless device includes a software application for decoding the QR code, yielding, for example, a uniform resource locator (URL) that can be used to initiate communication with a website operated by the computer server system. *Id.* ¶¶ 17–18, 21. In another embodiment, the code may present a printed message, "such as 'Text <alphanumeric code> to <SMS address>'" and the user transmits the code to the SMS address with the wireless device, and content is delivered from the computer server system. *Id.* ¶ 21.

In response to the receipt of the code from the wireless device by the computer server system, the computer server system queries an internal database using one or more parameters associated with or parsed from the received code. *Id.* ¶¶ 23, 35. Then, database results or content, such as a web site address, a web page, a coupon, audio/video content, photographs, etc., are returned by the computer server system to the wireless device. *Id.* ¶ 23.

The content that the computer server system delivers in return to the wireless device may be based on stored rules that may take into account the time of day, location of the consumer, prevailing weather conditions, and other variables. *Id.* ¶¶ 7, 26–32, 34–37, 41–46. Content may also be based on information known about the user. *Id.* ¶ 33. Different content can be delivered to different users even though they scan the same hardlink code with their wireless devices. *Id.* ¶ 37.

2. Claim 1

Petitioner argues that claim 1 is anticipated by Lim. Pet. 23–41. Patent Owner presents a number of arguments regarding Petitioner's showing. Prelim. Resp. 8–15.

a) *Preamble of Claim 1 –"A computer-implemented method, in a network comprising a plurality of objects, each of said objects having an object identifier associated therewith, each object comprising a tag, wherein the tag associated with each particular object in said network encodes: (i) said object identifier for said particular object, and (ii) an address or identifier resolvable to a location in said network"*

Petitioner argues that Lim discloses a computer implemented network in its disclosure of data processing and the use of a computer or telecommunications network. Pet. 24 (citing Ex. 1004 ¶ 7; Ex. 1003 ¶ 197). Petitioner asserts that the "network comprising a plurality of objects" is disclosed in Lim's QR codes appearing on objects or projections "that individuals may come across in the real world." *Id.* (quoting Ex. 1004 ¶ 5; Ex. 1003 ¶¶ 197, 201). Petitioner argues that the objects in Lim are disclosed as having tags with an encoding of an object identifier and an address or identifier resolvable to a location in the network, because Lim's objects include barcodes, QR codes, data representations, or other symbologies, which identify a product to a computer or user. *Id.* at 24–26 (citing Ex. 1004 ¶¶ 1, 2, 5, 25; Ex. 1003 ¶¶ 197–209).

Petitioner argues that, in the case of a QR code tag, Lim's tag encodes an object identifier for a particular object, since the "hardlink" encoded in the QR code identifies the object associated with the scanned QR code to Lim's server system. *Id.* at 26 (citing Ex. 1004 ¶¶ 5, 35–37; Ex. 1003 ¶ 205). Petitioner further argues that the tag encodes a "hardlink" or "real-world hyperlink" that encodes a web site address or URL that is the network

address of Lim's computer server system. *Id.* at 26–28 (citing Ex. 1004 ¶¶ 24, 37, Fig. 3; Ex. 1003 ¶ 205).

Petitioner additionally cites Lim's disclosure that the identifier for an object may be a printed message including an alphanumeric code and an SMS address. *Id.* at 28 (citing Ex. 1004 ¶ 21; Ex. 1003 ¶¶ 207–209). Petitioner argues that one of ordinary skill would understand that the SMS address would be an address or identifier resolvable to a network location and that the alphanumeric code would be an object identifier. *Id.*

Patent Owner argues that Lim does not disclose a tag that encodes both (i) an object identifier for an object and (ii) an address or identifier resolvable to a location in the network. Prelim. Resp. 8–12. Patent Owner argues that, in Lim, a hardlink code such as a QR code encodes a web site address or URL, but does not disclose that that hardlink code also encodes an object identifier for a particular object. *Id.* at 9–10. While acknowledging that the hardlink code is one of these determined variables, Patent Owner insists that because it is the hardlink code itself, Lim does not disclose any specific item encoded within the hardlink code being used as a variable. Prelim. Resp. 11.

However, with respect to embodiments of Lim utilizing a QR code, Petitioner shows that Lim discloses that all or part of the hardlink itself is used in identifying the object that was scanned. Pet. 26 (citing Ex. 1004 ¶¶ 35–37). Lim discloses that the hardlink code "will . . . provide a URL" for the computer server system to which the wireless device is directed. Ex. 1004 ¶¶ 35, 37. Lim also discloses that the content to be delivered from the computer server system in return is based on "determined variables" including the hardlink code. Ex. 1004 ¶ 37. On the present record and for the purposes of institution, Petitioner has sufficiently shown that in Lim's

QR code embodiment, the hardlink code, or information within the hardlink code, is used both to identify an object and to determine an address or identifier resolvable to a location in the network.

Additionally, Petitioner sufficiently shows the recited tag in Lim's embodiment where a tag includes an alphanumeric code and an SMS address. *See* Pet. 28.

Neither Petitioner nor Patent Owner address whether the preamble is limiting. Without determining whether or not the preamble is limiting, we determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Lim discloses the subject matter of the preamble of claim 1.

b) Limitation (A) –"a context-aware redirection server maintaining in a rules database, a set of rules comprising, for each object identifier of a plurality of object identifiers, a corresponding mapping to a plurality of entry points for a corresponding plurality of independent computer applications"

Petitioner argues that Lim discloses limitation (A) of claim 1 in the disclosure relating to Lim's server system. Pet. 29–35. Petitioner argues that Lim's server system includes an internal database which stores associations between hardlink codes and variables, with corresponding merchant addresses. *Id.* at 29 (citing Ex. 1004 ¶¶ 7, 20, 23, 35–37, 43–46, Claim 1; Ex. 1003 ¶¶ 210–219). Petitioner notes that Lim discloses that its server system "may be programmed to act as an intelligent proxy with a decision engine that includes one or more rules . . . which determine the content to deliver . . . in response to an indication of a code received therefrom." *Id.* at 30 (quoting Ex. 1004 ¶ 20).

Petitioner cites Lim's description of the internal database storing a plurality of separate merchant site addresses and one or more rules for

selecting a merchant site address" from that plurality for transmission to a user via the wireless device. *Id.* at 30–31 (quoting Ex. 1004 ¶ 7). Petitioner argues that Lim's "merchant web site addresses" disclose the claimed entry points, as they are predefined Internet addresses and cites Lim's disclosure that the server system of Lim may return any of a variety of content, including "a merchant web site address or web page, a coupon from a merchant, audio/video content, photographs, business contact information, confirmation of sweepstakes entry or the like." *Id.* at 29–31 (quoting Ex. 1004 ¶ 23; citing Ex. 1004 ¶ 7; citing Ex. 1003 ¶ 217). Petitioner argues that one of ordinary skill in the art would have understood that different types of content would be delivered by different applications. *Id.* at 35 (citing Ex. 1003 ¶ 221).

Petitioner also cites Lim's general disclosure that a user scans, images, or otherwise inputs a code, and the server system determines content to send to the user based on "existing rules and current data" "based on any number of conditions." *Id.* at 31–32 (quoting text from Ex. 1004, Fig. 2; citing Ex. 1004 ¶¶ 18, 25). Additionally, Petitioner discusses Lim's examples, in Figure 9–12, of an operator storing destination URLs (which Petitioner argues disclose "entry points") and contextual information associated with them, such as a "time-of-day based rule" that transmits to a user a first URL for a given scanned code for certain days and times, and a different URL for other days and times. *Id.* at 32–35 (citing Ex. 1004 ¶¶ 26, 41, 43–46, Fig. 3, 9–12; Ex. 1003 ¶ 221).

Patent Owner does not present any arguments with respect to Petitioner's contentions about limitation (A).

We determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Lim discloses the subject matter of limitation (A) of claim 1.

c) *Limitation (B) –"receiving, from a user device via a data network, and at said context-aware redirection server, a request comprising: (i) a particular object identifier, and (ii) contextual information from said user device, said context-aware redirection server and said particular object identifier having been determined from a specific object of said plurality of objects, said particular object identifier comprising an identifier associated with the specific object"*

Petitioner argues that Lim discloses this limitation in the receipt at the server system of a code, such as a scanned QR code, and contextual information from the user's wireless device. Pet. 36–39 (citing Ex. 1004 ¶¶ 21, 24–25, 27, 35; Ex. 1003 ¶¶ 225–233). Petitioner's arguments with respect to the receipt of the object identifier and the object identifier being determined from a specific object of a plurality of objects and comprising an identifier associated with the specific object largely mirror those discussed above with respect to the preamble of claim 1, including a discussion of how a QR code may be included on product packaging and how an object identifier may be an alphanumeric code displayed along with an SMS address. *Id.*

With respect to the receipt of "contextual information from said user device," Petitioner argues that Lim discloses that a request can include contextual information collected from or in response to an indication of a scan or entry of a hardlink code. *Id.* at 36 (citing Ex. 1004 ¶ 27). Petitioner additionally cites Lim disclosing that contextual information may include the geographic location of the user performing the scan, which may be determined from GPS information received from the user's wireless device. *Id.* at 36–37 (citing Ex. 1004 ¶ 37).

Patent Owner does not present any arguments with respect to Petitioner's contentions about limitation (B).

We determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Lim discloses the subject matter of limitation (B) of claim 1.

d) *Limitation (C) –"determining, at said context-aware redirection server, a specific entry point of said plurality of entry points associated with said particular object identifier, said determining being based on: (i) the particular object identifier, and said contextual information associated with the request, and (ii) said set of rules in said rules database, said specific entry point corresponding to a specific computer application of said plurality of independent computer applications associated with said particular object, wherein said particular object identifier and said contextual information associated with the request are mapped by said set of rules to said specific entry point"*

Petitioner argues that Lim discloses this limitation in the determination made at Lim's server system of the corresponding content to send, based on the rules in the server system and rules database as described with reference to limitation (A). Pet. 39 (citing Ex. 1003 ¶¶ 234–236, referring to arguments in Pet. 29–35).

Patent Owner argues that Petitioner has failed to address where the prior art discloses this claim limitation, and thus has impermissibly placed a burden on the board to ascertain how Lim reads on this limitation, and requires us to "cobble together assertions from different sections" of the Petition. Prelim. Resp. 12–15 (quoting *Microsoft Corp. v. FG SRC, LLC*, 860 F. App'x 708, 713 (Fed. Cir. 2021)). In that case, however, the Petitioner did not advance a challenge to a claim on a specific ground, the panel did not address that claim on that ground, and the Federal Circuit found that there was "no plausible argument that Microsoft's petition challenged [the claim] based on obviousness [ground] with any particularity

whatsoever" and that the panel was within its discretion to interpret the petition to not include such a ground. Microsoft, 860 F. App'x at 713. While we agree that Petitioner has, and always maintains, the burden of proving its case, we do not find the way the Petition has done so with respect to this claim limitation to be "conclusory and confusing." *See* Prelim. Resp. 12, 14–15.

Patent Owner argues that Petitioner has not described where Lim discloses the determination of a specific entry point based on an object identifier and contextual information and wherein the object identifier and contextual information are mapped to that entry point. *Id.* at 13–14. However, in the discussion of limitation (A), Petitioner has described exactly this, and refers to this discussion for limitation (C). Pet. 29–31 (discussion of limitation (A)), 39 (reference to that discussion); *see supra* Section IV.D.2.b. Patent Owner additionally argues that any argument with respect to this limitation would suffer from the same issues Patent Owner identifies with respect to the preamble of claim 1 regarding the encoding of an object identifier in a tag. As discussed *supra*, we find that Petitioner has sufficiently shown such object identifiers, for the purpose of institution and on the present record.

For these reasons, on this record and for the purposes of institution, Petitioner has sufficiently shown that Lim discloses the subject matter of limitation (C) of claim 1.

e) Limitation (D) –"said context-aware redirection server redirecting said user device or providing said user device access to said specific computer application via said specific entry point"

Petitioner argues that Lim discloses this limitation in Lim's server system that provides content, including for example access to a web site, as

per the determination of the server system and rules database. Pet. 39–41 (citing Ex. 1004 ¶¶ 23, 35–37, Fig. 2; Ex. 1003 ¶¶ 237–239, referring to arguments in Pet. 29–35). As discussed above, Petitioner describes the operation of Lim's server system providing content in response to the scanning of a code, and that Lim's server system determines and delivers appropriate data based on the rules database.

Patent Owner does not present any arguments with respect to Petitioner's contentions about limitation (D). We determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Lim discloses the subject matter of limitation (D) of claim 1.

f) Conclusion – Claim 1

For these reasons, on the present record, Petitioner has shown a reasonable likelihood that it will prevail in showing claim 1 to be anticipated by Lim.

3. Claims 2–7, 9–11, and 13–21

Claims 2–7, 9–11, and 13–21 depend, directly or indirectly from claim 1, adding certain limitations. Petitioner provides an element-by-element analysis of these claims in light of the teachings of Lim. Pet. 41–48 (including citations to Ex. 1003 ¶¶ 240–278).

Patent Owner presents no arguments specifically with respect to the limitations of these claims. For the reasons given by Petitioner and those discussed above, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 2–7, 9–11, and 13–21.

4. Claim 22

Petitioner argues that claim 22 is substantially similar to claim 1. Pet. 48–50. Petitioner references its arguments with respect to claim 1, and

notes two exceptions in the asserted similarity between claims 1 and 22 and presents arguments relating to them. *Id.* at 49.

We note that claim 22 recites, in its preamble, that "said object identifier for each said object is unique within the network." Petitioner argues that Lim does describe that a unique code is established, but proceeds to describe that "the unique code is visually displayed . . . at one or more geographical locations" or in newspapers or magazines. Ex. 1004 ¶ 25. On the present record, it is not clear whether a code displayed in more than one geographical location or in multiple copies of a magazine (if that occurs) would anticipate a requirement that the identifier "for each said object is unique within the network." Again, neither Petitioner nor Patent Owner address whether the preamble is limiting.

With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 9–15; *see supra* Section IV.D.2.a and IV.D.2.d.

5. Claims 23–28

Claims 23–28 depend, directly or indirectly from claim 22, adding certain limitations. With respect to these claims, Petitioner references its analysis of claims 5, 7, 9, 10, 11, and 13. Pet. 49–50.

Patent Owner presents no arguments specifically with respect to the limitations of these claims.

6. Claim 29

Petitioner argues that claim 29 is substantially similar to claim 1. Pet. 48, 50. Petitioner references its arguments with respect to claim 1. *Id.*

With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 9–15; *see supra* Section IV.D.2.a and IV.D.2.d.

For the reasons given by Petitioner and discussed above, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claim 29.

E. Claims 1–29
Obviousness over Lim and Chor

Petitioner argues that claims 1–29 are obvious over Lim and Chor. Pet. 50–56. Patent Owner presents arguments relating to these contentions. Prelim. Resp. 15–21

1. Chor

Chor describes a URI-service that allows for the creation of machine scannable codes or unique URLs that are provided as ways to access actionable data payloads, that is, payloads that allow functionality other than web site functionality. Ex. 1013 ¶¶ 3–6, 39–41, 43–45. A user encountering such a code scans the code with a mobile device, which sends a request for the encoded unique URL to a URI-service server. *Id.* ¶ 46. The URI-service server retrieves the actionable data payload (URI) associated with the URL, formats it for the mobile device as a device-specific URI, and sends it to the mobile device. *Id.* ¶¶ 47–51.

In certain embodiments, conditional specifiers may be stored with URIs, and different URIs may be provided based on information submitted with the request. *Id.* ¶¶ 109–119, Fig. 14.

2. Obviousness over Lim and Chor

Petitioner argues that claims 1–29 are obvious over a combination of Lim and Chor in which Lim's barcodes encode Chor's unique URLs that map to URIs based on conditional specifiers of context information. *Id.* at 50, 54–55 (citing Ex. 1003 ¶¶ 348–358).

As Patent Owner argues, however, it is unclear what claim limitations Chor's teachings are relied on for, with respect to claims other than claim 8 and 12. Prelim. Resp. 16–17.

Petitioner argues that the combination of Lim and Chor is motivated by a desire to "implement Lim's QR codes using the short, unique URIs of Chor" and to use Chor's logic for mapping unique URIs to destination URIs for redirection. Pet. 54–55 (citing Ex. 1003 ¶ 358). It is not clear what elements of the claims this combination is meant to address. With respect to claims 8 and 12, it is unclear how using short URIs or Chor's mapping logic affects the entry points provided or access to a server, as in the additional limitations of those claims.

Patent Owner additionally argues that it would not have been obvious to combine Lim and Chor, because Chor teaches using short URLs in place of large actionable data payloads, but Lim's encoded web site addresses or URLs are not the size of the large data payloads of Chor, but rather similar to Chor's short URLs. Prelim. Resp. 19–21. Thus, Patent Owner argues, the benefit Petitioner asserts, of allowing additional mobile devices to allow devices with fewer capabilities to use the system, would not be realized by substituting the short URLs of Chor for the scanned codes of Lim. *Id.* at 21–22. We agree. On this record, Petitioner has not adequately shown a motivation to combine Lim and Chor.

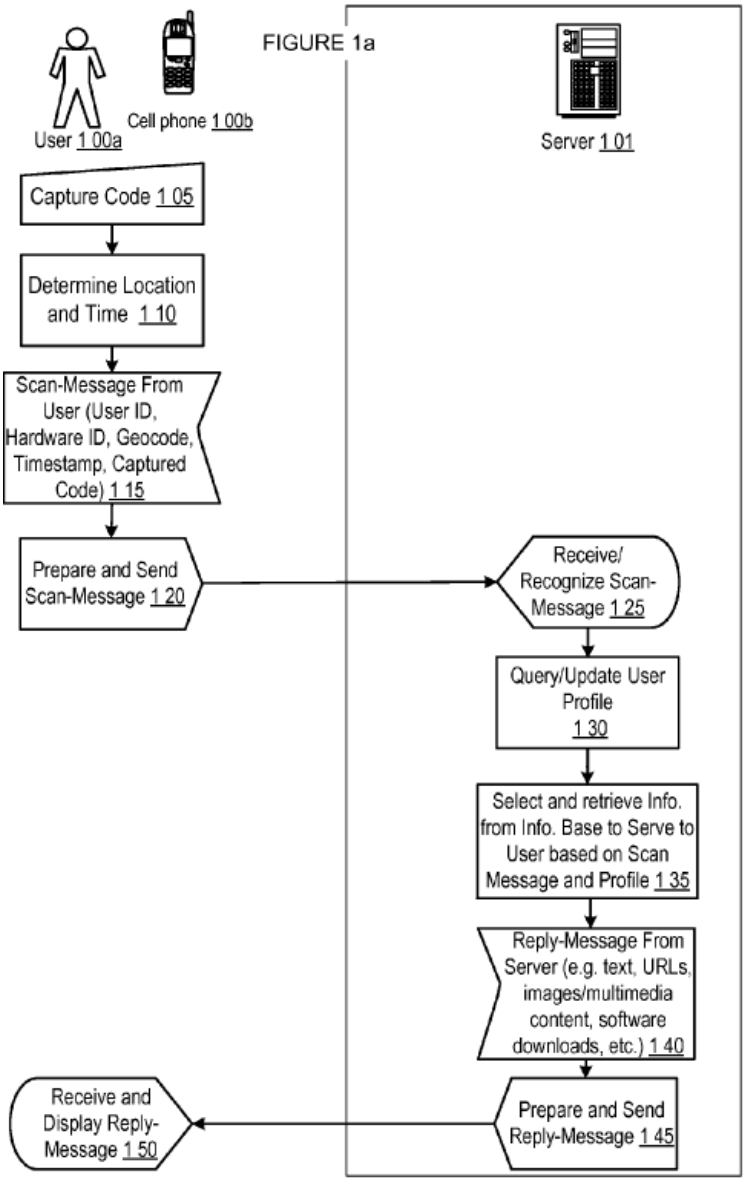
F. Claims 1–7, 9–11, and 13–29 Obviousness over Fitzpatrick and Herzig

Petitioner argues that claims 1–7, 9–11, and 13–29 are obvious in view of Fitzpatrick and Herzig. Pet. 56–78. Patent Owner presents arguments relating to these contentions. Prelim. Resp. 21–29. For the reasons discussed below, we determine that Petitioner has shown a

reasonable likelihood that the Petitioner would prevail with respect to these claims.

1. Fitzpatrick

Fitzpatrick relates to a system in which users trigger the provision of information from a server by scanning or observing codes or information. Ex. 1007, code (57), ¶¶ 15–16. Figure 1a of Fitzpatrick, reproduced below, show the logic and data flow in this system.



As seen in Figure 1a, user 100a using scanning device (cell phone) 100b communicates with server 101. *Id.* ¶¶ 48, 50. This communication is a scan message, which contains user identification, hardware ID, a timestamp and the scanned code. *Id.* ¶¶ 50, 65–67, Fig. 4. Scannable codes may be found in a variety of places, including signs and billboards, consumer products, packages, broadcasts, and virtual worlds. *Id.* ¶ 60. The scan message includes static content determined from the scanned code, which is the same for every user. *Id.* ¶ 78. Additional information regarding the user may be included, such as the user's location, prior locations, or other information. *Id.* ¶¶ 56, 78, 97. The scan message may be sent by a wide variety of communication methods, including via a short code number, telephone number, email address, or URL. *Id.* ¶¶ 51–55. The short code or other server address may be part of the scanned code, in which case it is partially decoded to extract the address, or it may be separate from the scanned code. *Id.* ¶ 52. Context-specific reply messages are sent by server 101 to the user's scanning device 100b for display to user 100a in response. *Id.* ¶¶ 48, 50. For example, content may be formatted to be appropriate to device 100b. *Id.* ¶ 81. These ads may be based on marketer rules.

Fitzpatrick describes an embodiment in which the reply message is generated by a "code triggered information server" or CTIS server that contains content to be sent to the user and a database with user profile information and content information. *Id.* ¶¶ 58, 75, 155–161.

2. Herzig

Herzig relates to communicating encoded information using displayed barcodes that encode information, including using barcodes to provide links to online content. Ex. 1006, code (57), ¶¶ 1, 69. Herzig notes that some

URLs are excessively long and difficult to encode in a barcode, or are subject to change, and provides an embodiment in which a server stores associations between relatively short URLs (or "short links") and full length URLs that may be changeable. *Id.* ¶¶ 69–70, Fig. 11.

In this embodiment of Herzig, a server 302 contains a mapping table 306 (which is not necessarily a table, and can be a relational database) that contains associations between the short links and full URLs. *Id.* ¶¶ 71–72. Based on the associations, when a barcode is scanned, a short link is obtained, and the mapping table causes a redirection from the short link to the associated URL. *Id.* ¶ 75.

3. Claim 1

Petitioner argues that claim 1 is obvious in view of a combination of Fitzpatrick and Herzig. Pet. 56–72. Patent Owner presents a number of arguments regarding Petitioner's showing. Prelim. Resp. 21–29.

a) Preamble of Claim 1 –"A computer-implemented method, in a network comprising a plurality of objects, each of said objects having an object identifier associated therewith, each object comprising a tag, wherein the tag associated with each particular object in said network encodes: (i) said object identifier for said particular object, and (ii) an address or identifier resolvable to a location in said network"

Petitioner argues that Fitzpatrick discloses a computer implemented network in its disclosure of the CTIS in a network. Pet. 57 (citing Ex. 1007 ¶ 15; Ex. 1003 ¶¶ 365–368). Petitioner asserts that the "plurality of objects" is disclosed in Fitzpatrick's plurality of objects, such as (among other examples) media publications, billboards, and consumer products. *Id.* (citing Ex. 1007 ¶¶ 49, 60). Petitioner argues that the objects in Fitzpatrick are disclosed as having object identifiers in the form of codes, including in

one embodiment two dimensional bar codes such QR codes. *Id.* at 57–59 (citing Ex. 1007 ¶¶ 49, 50, 52, 60, 63–64, Fig. 5a; Ex. 1003 ¶¶ 369–372).

Patent Owner argues that Fitzpatrick does not disclose a text string in a tag encodes an object identifier for a particular object. Prelim. Resp. 22–25. Patent Owner makes two main arguments. First, Patent Owner argues that Fitzpatrick teaches a code with a missing character, and that Fitzpatrick tries to determine or infer the missing character. Prelim. Resp. 22–23 (citing Ex. 1007 ¶ 64). Patent Owner cites Fitzpatrick's discussion of a situation in which the CTIS system receives incomplete information regarding a code ("ABC1_3") and attempts to find a matching code in the database. *Id.* As Fitzpatrick discusses a situation where two or more matching codes may exist, Patent Owner concludes that Fitzpatrick does not teach or suggest an object identifier for a particular object. *Id.* However, this disclosure in Fitzpatrick is part of an illustrative example of partial decoding, which occurs in Fitzpatrick "in some cases in which full decoding of a scanned code image is impossible" because, e.g., "an ideal and/or suitable condition for decoding" is not present. Ex. 1007 ¶¶ 61–64. While Fitzpatrick does teach this process for non-ideal code scans, there is no implication in Fitzpatrick that code scans will always be non-ideal, and even this portion of Fitzpatrick discusses "if the decoding is successful (520), then the code is matched to associated content (525) that is ultimately destined to be served to [the] user." *Id.* ¶ 61, Fig. 5b. Only if this process is unsuccessful is the situation with two or more matching codes described. *Id.* ¶¶ 61, 63, Figs. 5b, 5c.

Patent Owner also argues that the scan message is disclosed in Fitzpatrick as including "a code field (615) supplying the specific content of the scanned code, which may include a subject code (615a) for the code

context, a source code (615b) indicating where the code was located, and a content code (615c) indicating the specific information, if any, to be supplied in response to a scan of that code," but that no part of the disclosure of the Scan Message contents refer to an object identifier, as recited in the preamble of claim 1. Prelim. Resp. 23–24 (quoting Ex. 1007 ¶ 66, Pet. 68). However, on the current record and for the purposes of institution, Petitioner sufficiently shows that the scanned code is sent in the scan message and identifies the object, including through disclosure of a text string. *Id.* at 58 (citing Ex. 1007 ¶ 52 as describing encoding a server address and additional information in a scanned code).

Neither Petitioner nor Patent Owner address whether the preamble is limiting. Without determining whether or not the preamble is limiting, we determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Fitzpatrick teaches or suggests the subject matter of the preamble of claim 1.

b) Limitation (A) –"a context-aware redirection server maintaining in a rules database, a set of rules comprising, for each object identifier of a plurality of object identifiers, a corresponding mapping to a plurality of entry points for a corresponding plurality of independent computer applications"

Petitioner argues that the combination of Fitzpatrick and Herzig discloses limitation (A) of claim 1. Pet. 59–68 (citing Ex. 1003 ¶¶ 373–393). Petitioner argues that Fitzpatrick teaches a server that includes a rules database that stores object identifiers, contextual information, and content. *Id.* at 60 (citing Ex. 1007 ¶¶ 73, 90, 113–114, 156, 157, 160). Petitioner cites Fitzpatrick's teaching that its CTIS determines which ads to include based on the received contents of the message, which includes an object identifier and contextual information, such as information regarding the

user's identity or hardware. *Id.* at 60–61 (citing Ex. 1007 ¶¶ 48, 50, 71, 75, 78). Petitioner argues that Fitzpatrick's disclosure teaches the corresponding plurality of independent computer applications in the suggestion of the use of a webserver application and a video application. *Id.* at 61 (citing Ex. 1003 ¶ 374).

Petitioner argues that one of ordinary skill would have combined Herzig's teachings with Fitzpatrick's teachings regarding a database implementing "marketer rules" or "serving rules" that are used to serve ads based on contextual information. Pet. 61–64 (citing Ex. 1007 ¶¶ 90, 94, 103, 156, Fig. 11b). Petitioner cites, for the combination, Herzig's teachings regarding a database structure that uses look-up tables to redirect from a shorter URL encoded in a QR code into a longer URL. Pet. 64–66 (citing Ex. 1006 ¶¶ 22, 34, 70–72, 74, 75, Fig. 11; Ex. 1003 ¶¶ 384–385). Petitioner argues that, in the proposed combination, the inputs for the Herzig look-up table would be the scan code along with context information as taught by Fitzpatrick, and the output would be the entry points for a plurality of applications, also as taught by Fitzpatrick. Pet. 67 (citing Ex. 1003 ¶ 386). Petitioner contends that one of ordinary skill would have been able to make this modification, and would do so in order to allow advertisers to achieve maximum return on advertising expenditure. *Id.* at 67–68 (citing Ex. 1007 ¶ 49).

Patent Owner argues Herzig does not teach making an association to an entry point based on an object identifier *and contextual information*, but simply teaches a look-up table. Prelim. Resp. 26. Patent Owner argues that "[t]here is no teaching in Herzig to implement the look-up table into a system that uses contextual information." *Id.* at 26–28 (citing Ex. 1006 ¶¶ 22, 74–76). Patent Owner further argues that Petitioner does not make

clear "how the two systems are compatible," "how the combination would function," or "how a POSITA would arrive at the claimed invention." *Id.* at 28–29. Additionally, Patent Owner argues that Herzig does not teach advertisers directly editing the mapping table, but rather requires the use of a manager. *Id.* at 28–29.

Upon consideration of the record, and for the purposes of institution, we find that Petitioner has sufficiently described the combination and supported this with expert testimony. Pet. 66–68; Ex. 1003 ¶¶ 384–388. Patent Owner's arguments regarding the lack of a teaching of contextual information as used in the look-up table of Herzig amounts to an attack on Herzig individually rather than on the proposed combination of references. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Petitioner provides a sufficient disclosure of how the combination would be accomplished, modifying Fitzpatrick's database to use a look-up table, and has provided a rationale for the combination, supported by expert testimony. With respect to the argument that Herzig's look-up table cannot be directly edited, we look to what the combination would have suggested to one of ordinary skill, and on the present record, determine that Petitioner has shown sufficiently that one skilled in the art would have produced an operable combination. *See In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1382 (Fed. Cir. 2007) ("[W]e do not ignore the modifications that one skilled in the art would make to a device borrowed from the prior art.").

For these reasons, we determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that the

combination of Fitzpatrick and Herzig teaches or suggests the subject matter of limitation (A) of claim 1.

c) *Limitation (B) –"receiving, from a user device via a data network, and at said context-aware redirection server, a request comprising: (i) a particular object identifier, and (ii) contextual information from said user device, said context-aware redirection server and said particular object identifier having been determined from a specific object of said plurality of objects, said particular object identifier comprising an identifier associated with the specific object"*

Petitioner argues that Fitzpatrick teaches this limitation in its codes located on consumer products or packages, which encode an object identifier that is sent in a scan message from a user device, along with contextual information from the user device. Pet. 68–69 (citing Ex. 1007 ¶¶ 49, 66; Ex. 1003 ¶¶ 390–393). Petitioner contends that Fitzpatrick teaches that a scan code on a product or package can include a server address and an additional portion, and that this teaches the identification of the server and the specific object from the scan code. *Id.* at 69 (citing Ex. 1007 ¶ 52).

Patent Owner does not present any arguments with respect to Petitioner's contentions about limitation (B). We determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown that Fitzpatrick teaches or suggests the subject matter of limitation (B) of claim 1.

d) *Limitation (C) –"determining, at said context-aware redirection server, a specific entry point of said plurality of entry points associated with said particular object identifier, said determining being based on: (i) the particular object identifier, and said contextual information associated with the request, and (ii) said set of rules in said rules database, said specific entry point corresponding to a specific computer application of said plurality of independent computer applications associated with said particular object, wherein said particular object identifier and said*

contextual information associated with the request are mapped by said set of rules to said specific entry point"

Petitioner argues that the recitations of limitation (C) of claim 1 are taught by a combination of Fitzpatrick and Herzig, including Fitzpatrick's disclosure of the use of a scan message including a scan code and contextual information such as the type or location of the scanning device in order to select ads, which are provided via a plurality of applications. Pet. 69–71 (citing Ex. 1007 ¶¶ 49, 50, 58, 75, 78, 106; Ex. 1003 ¶¶ 397–402). Petitioner adds Herzig's teachings with respect to a lookup table for processing such requests. *Id.* at 70 (citing Ex. 1008 ¶¶ 71, 73, 75, Fig. 11; Ex. 1003 ¶ 401).

With the exception of its arguments relating to the combination of Fitzpatrick and Herzig, addressed above, Patent Owner does not present arguments with respect to this limitation.

For these reasons, on this record and for the purposes of institution, Petitioner has sufficiently shown that the combination of Fitzpatrick and Herzig teaches or suggests the subject matter of limitation (C) of claim 1.

e) Limitation (D) –"said context-aware redirection server redirecting said user device or providing said user device access to said specific computer application via said specific entry point"

Petitioner argues that Fitzpatrick discloses element (D) of claim 1 in its CTIS that provides links to articles or videos to a user device in response to the scanning of a code, and that this content would have been provided by different applications. Pet. 71–72 (citing Ex. 1007 ¶¶ 106; Ex. 1003 ¶¶ 403–404).

Patent Owner does not present any arguments with respect to Petitioner's contentions about limitation (D). We determine that, on this record and for the purposes of institution, Petitioner has sufficiently shown

that Fitzpatrick teaches or suggests the subject matter of limitation (D) of claim 1.

f) Conclusion – Claim 1

For these reasons, on the present record, Petitioner has shown a reasonable likelihood that it will prevail in showing claim 1 to be obvious in view of Fitzpatrick and Herzig.

4. Claims 2–7, 9–11, 13–21

Claims 2–7, 9–11, and 13–21 depend, directly or indirectly from claim 1, adding certain limitations. Petitioner provides an element-by-element analysis of these claims in light of the teachings of the combination of Fitzpatrick and Herzig. Pet. 72–77 (including citations to Ex. 1003 ¶¶ 405–440).

Patent Owner presents no arguments specifically with respect to the limitations of these claims. On the present record, for the reasons given by Petitioner and those discussed above, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 2–7, 9–11, and 13–21.

5. Claim 22

Petitioner argues that claim 22 is substantially similar to claim 1. Pet. 77–78. Petitioner references its arguments with respect to claim 1, and notes two exceptions in the asserted similarity between claims 1 and 22 and presents arguments relating to them. *Id*.

With respect to claim 22's recital (in its preamble) that "said object identifier for each said object is unique within the network," Petitioner argues that Fitzpatrick teaches this in its discussion of finding a unique code that matches an incompletely scanned code. *Id.* at 77 (citing Ex. 1007 ¶ 63); Ex. 1003 ¶ 451. However, this teaching appears to relate, not to whether an

identifier for an object is unique within a network, but to whether possible candidates for an incompletely scanned code may be narrowed to one possible code. Ex. 1007 ¶ 63; *see id.* ¶¶ 61–64.

Again, neither Petitioner nor Patent Owner address whether the preamble of claim 22 is limiting. With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 22–29; *see supra* Sections IV.F.3.a and IV.F.3.b.

6. Claims 23–28

Claims 23–28 depend, directly or indirectly from claim 22, adding certain limitations. With respect to these claims, Petitioner references its analysis of claims 5, 7, 9, 10, 11, and 13. Pet. 77–78. Patent Owner presents no arguments specifically with respect to the limitations of these claims.

7. Claim 29

Petitioner argues that claim 29 is substantially similar to claim 1. Pet. 77–78. Petitioner references its arguments with respect to claim 1. *Id.*

With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 22–29; *see supra* Sections IV.F.3.a and IV.F.3.b.

For the reasons given by Petitioner and discussed above, on the present record, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claim 29.

G. Claim 8
Obviousness over Lim and Rabetge
Obviousness over Lim, Chor, and Rabetge
Obviousness over Fitzpatrick, Herzig, and Rabetge

Claim 8 depends indirectly from claim 1 via dependency from claim 6, which depends from claim 5, which in turn depends from claim 1.

Claim 8 adds a further limitation that "the specific entry point" of claim 1 "comprises a RUN." Petitioner argues that, to the extent the prior art relied upon in prior grounds does not disclose (or teach or suggest, for obviousness contentions) a RUN as an entry point, Rabetge teaches this. Pet. 78–80.

Rabetge discloses that a system may provide one or more consumer proxies to call web services. Ex. 1011, code (57). Web services are provided by provider systems in response to web service calls. *Id.* ¶¶ 33–35, Fig. 1. Petitioner contends that these web-service calls teach or suggest the RUN of claim 8. Pet. 79–80; Ex. 1003 ¶ 499. Petitioner additionally provides a rationale for the combination of Rabetge with Lim or Fitzpatrick and argues that the combination would be straightforward. Pet. 79 (citing Ex. 1003 ¶¶ 498–503).

With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 30. In our discussion of claims 1 and claims 5 and 6 above, we have indicated that Petitioner has demonstrated a reasonable likelihood of prevailing on the challenges with respect to anticipation by Lim and obviousness over Fitzpatrick and Herzig. *See supra* Sections IV.D.2, IV.D.3, IV.F.3, and IV.F.4. For these reasons, on the present record, Petitioner has shown a reasonable likelihood that it will prevail in showing claim 8 obvious over a combination of Lim and Rabetge, or over a combination of Fitzpatrick, Herzig, and Rabetge.

H. Claim 12
Obviousness over Lim and Makower
Obviousness over Lim, Chor, and Makower
Obviousness over Fitzpatrick, Herzig, and Makower

Claim 12 depends indirectly from claim 1 via dependency from claim 11, which depends from claim 10, which depends from claim 9, which

in turn depends from claim 1. Claim 12 adds the limitation that the user's device access the server via a third party identify provider. Petitioner argues that, to the extent the prior art relied upon in prior grounds does not disclose (or teach or suggest) this, Makower teaches it. Pet. 80–82.

Makower discloses multiple web servers that utilize a central sign-on server. Ex. 1010 ¶ 15, Fig 1. Petitioner contends that this teaches authenticating requests with different web servers through a third party identity provider, and it would have been obvious to use this teaching with Lim's or Fitzpatrick's client devices. Pet. 80–81 (citing Ex. 1003 ¶¶ 507, 508, 510).

With respect to this claim, Patent Owner raises the same issues as with respect to claim 1, which we addressed above. Prelim. Resp. 30. In our discussion of claims 1, 9, 10, and 11 above, we have indicated that Petitioner has demonstrated a reasonable likelihood of prevailing on the challenges with respect to anticipation by Lim and obviousness over Fitzpatrick and Herzig. *See supra* Sections IV.D.2, IV.D.3, IV.F.3, and IV.F.4. For these reasons, on the present record, Petitioner has shown a reasonable likelihood that it will prevail in showing claim 12 obvious over a combination of Lim and Makower, or over a combination of Fitzpatrick, Herzig, and Makower.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review is *instituted* with respect to all claims and all grounds of unpatentability raised in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '321 patent is hereby instituted commencing on the

entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

For PETITIONER:

Joseph Klinicki
Michael Bonella
Michael Piscitelli
Ryan Peddle
FLASTER GREENBERG PC
joseph.klinicki@flastergreenberg.com
michael.bonella@flastergreenberg.com
michael.piscitelli@flastergreenberg.com
ryan.peddle@flastergreenberg.com

For PATENT OWNER:

Naveen Modi
Daniel Zeilberger
PAUL HASTINGS LLP
naveenmodi@paulhastings.com
danielzeilberger@paulhastings.com