

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IRONSOURCE LTD.,
Petitioner,

v.

DIGITAL TURBINE INC.,
Patent Owner.

PGR2022-00053
Patent 11,157,256 B2

Before KALYAN K. DESHPANDE, *Vice Chief Administrative Patent Judge*, MONICA S. ULLAGADDI and IFTIKHAR AHMED, *Administrative Patent Judges*.

AHMED, *Administrative Patent Judge*.

DECISION
Granting Institution of Post-Grant Review
35 U.S.C. § 324

I. INTRODUCTION

IronSource Ltd. (“Petitioner”) requested a post-grant review of claims 1–22 (the “challenged claims”) of U.S. Patent 11,157,256 B2 (Ex. 1001, “the ’256 patent”). Paper 1 (“Petition” or “Pet.”). Digital Turbine Inc. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”).

Under 35 U.S.C. § 324(a), a post-grant review may not be instituted unless it is determined that it is more likely than not that at least one of the challenged claims is unpatentable. Based on the information presented in the Petition and the supporting evidence, we are persuaded that the Petition demonstrates it is more likely than not that at least one of the challenged claims is unpatentable. Accordingly, we institute a post-grant review of the challenged claims on the grounds set forth in the Petition.

Our factual findings and conclusions at this stage of the proceeding are based on the evidentiary record developed thus far. This is not a final decision as to patentability of the challenged claims. Any final decision will be based on the full trial record, including any response to the Petition timely filed by Patent Owner.

II. BACKGROUND

A. *Real Parties in Interest*

Petitioner identifies itself as the real party-in-interest. Pet. 1. Patent Owner identifies itself as the real party-in-interest. Paper 4, 1.

B. *Related Matters*

The parties identify PGR2021-00096 challenging U.S. Patent 10,782,951 (“the ’951 patent”), of which the ’256 patent is a continuation. Pet. 1; Paper 4, 1.

C. The '256 Patent (Ex. 1001)

The '256 patent, titled “Instant Installation of Apps,” was filed on August 13, 2020, as Application No. 16/992,194 (“the '194 application”). Ex. 1001, codes (21), (22), (54). The patent describes an installation client for installing new software applications (“apps”) on a device, without redirecting the device to an app store. *Id.* at 1:52–54. The installation client enables users to download new apps in the background while maintaining interaction with their currently-used application. *Id.* at 2:6–12.

Figure 1 of the '256 patent is reproduced below.

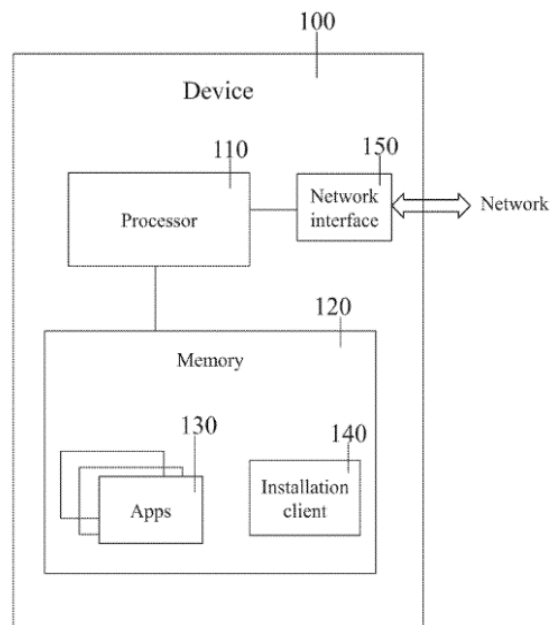


Figure 1, above, shows a block diagram of device 100 for running software applications, which includes processor 110 connected to non-transitory memory 120 which stores apps 130 and installation client 140. *Id.* at 9:22–25, 36–54. Device 100 may be a mobile device. *Id.* at 9:41–42.

The '256 patent describes the following example of a user using an app running on device 100:

The current app displays an “instant install” link (e.g. an ad containing a clickable link) for a different app (denoted herein

the new app). When the user selects the “instant install” link in order to download the new app, installation client 140 is invoked to run in the background. The current app is not exited. The user may continue to use the current app without being aware that installation client 140 is now active in the background. Installation client 140 automatically downloads an installation file for the new app The installation file is used to install the new app on the device.

Id. at 9:43–54.

Figure 6 of the '256 patent is reproduced below.

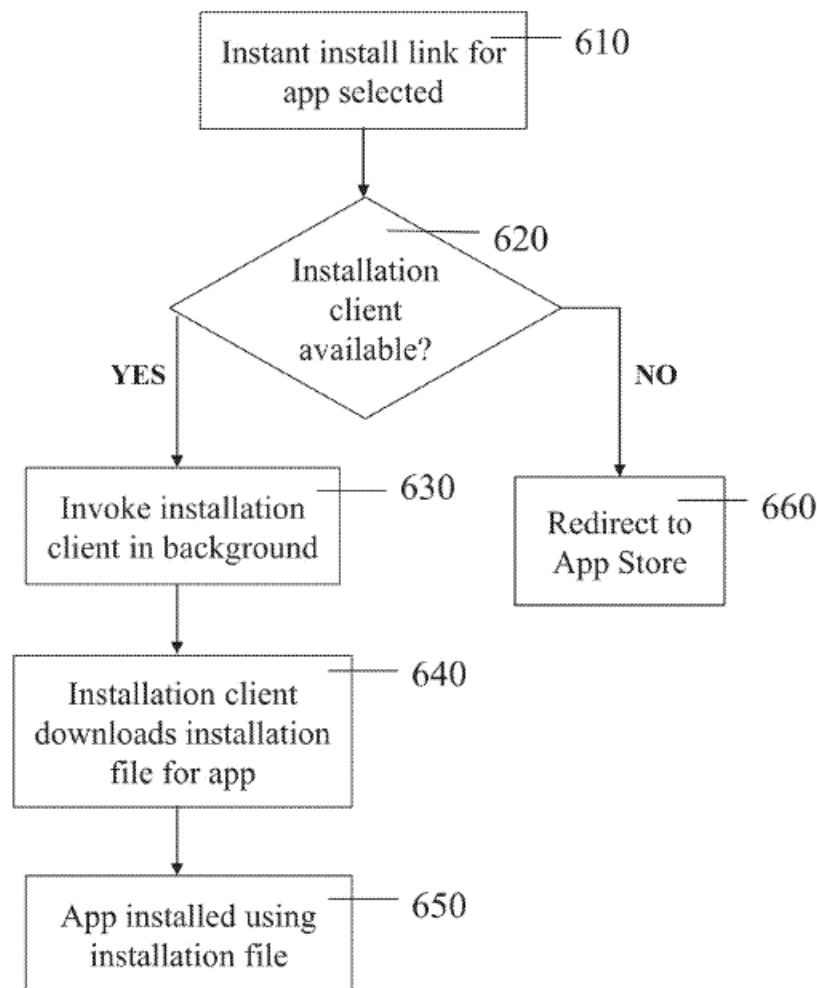


Figure 6, above, shows a flowchart illustrating a method for installing software applications on a device, beginning with selecting an install link for

an app (step 610), followed by determining whether an installation client is available (step 620). *Id.* at 13:55–63. If “YES,” the installation client is invoked in the background (step 630), and proceeds to download the installation file for the app (step 640) and install the app using the installation file (step 650). *Id.* at 13:64–14:2. If “NO,” the device is redirected to an app store (step 660). *Id.* at 14:3–4.

Figure 7 of the '256 patent is reproduced below.

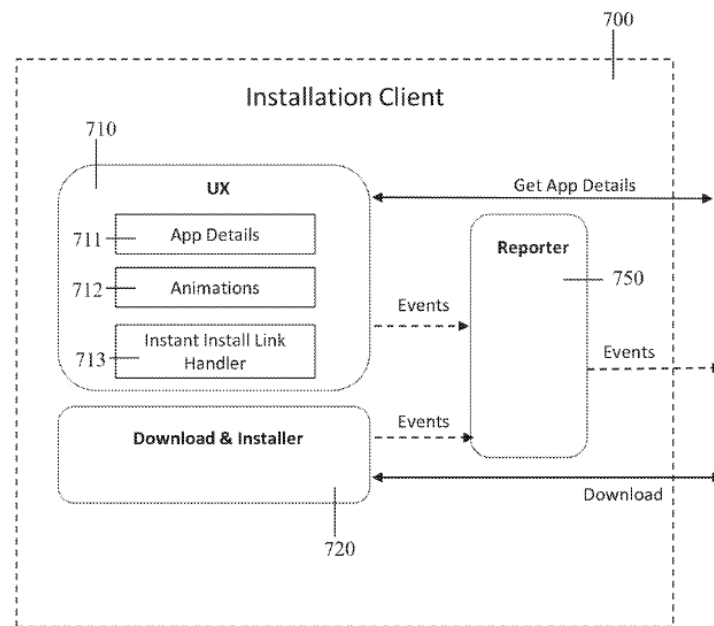


Figure 7, above, shows a schematic diagram of installation client 700, including several modules. *Id.* at 14:10–13. User Experience (UX) module UX 710 handles interaction with the user, and supports functionality such as providing app details, handling animations for display, and handling operations when an install link is selected. *Id.* at 14:19–31. Download and Installer 720 downloads and installs the new app when the install link is selected. *Id.* at 14:32–37. Reporter 750 monitors events occurring in the installation client, such as clicks on links, user confirmation to install app, successful download, successful install and other status/failure related events. *Id.* at 14:38–51.

D. Challenged Claims

Petitioner challenges claims 1–22, of which claims 1, 14, and 21 are independent claims. Claim 1 is reproduced below.

1. [pre] A network-connected device configured for running software applications, comprising:
 - [a] a network interface configured for communicating over a network;
 - [b] at least one non-transitory computer readable storage medium storing instructions; and
 - [c] at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:
 - [d] identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in content displayed on said device by the second software application;
 - [e] in response to said identifying, determine whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;
 - [f] when said installation client is available on said device:
 - [f1] invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;
 - [f2] instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface in the background on said device, without directing said user interaction to an app store; and
 - [f3] using said downloaded installation file, install said first software application on said device in the background on said device while maintaining a user experience of

interaction with said second software application in the foreground; and

[g] when said installation client is unavailable on said device, redirect said device to an app store for downloading said first software application on said device.

Ex. 1001, 21:2–40 (annotations from Pet. 8–9).

E. The Asserted Grounds

Petitioner asserts that claims 1–22 would have been unpatentable on the following grounds, relying on the declaration testimony of Kevin C. Almeroth, Ph.D. (Ex. 1008). *See* Pet. 4, 25–86. Patent Owner relies on the declaration testimony of Zhuoqing Morley Mao, Ph. D. (Ex. 2005). *See* Prelim. Resp. 1–28.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–22	101	Eligibility
1, 2, 4–15, 17–22 ¹	102(a)	Pasha ²
2, 3, 5–7, 15–17, 22	103	Pasha
3, 16	103	Pasha, Yamada ³
7, 17	103	Pasha, Molinet ⁴

III. ANALYSIS

A. Eligibility for Post-Grant Review

Post-grant review is available only for patents that, at one point, contained at least one claim with an effective filing date, as defined by

¹ We list the challenged claims for the anticipation and obviousness grounds based on actual arguments presented in the Petition (*see* Pet. 49–86) and not the claims listed at the beginning of the Petition (*see id.* at 4).

² U.S. Patent 10,353,686 B1, issued July 16, 2019 (Ex. 1003, “Pasha”).

³ U.S. Patent Application No. 2010/0095294 A1, published April 15, 2010 (Ex. 1004, “Yamada”).

⁴ U.S. Patent Application No. 2016/0142859 A1, published May 19, 2016 (Ex. 1005, “Molinet”).

35 U.S.C. § 100(i), on or after March 16, 2013. Also, the request for post-grant review must be filed *no later than* nine months after the patent is granted. 35 U.S.C. § 321(c). Petitioner asserts that the '256 patent is available for post-grant review. Pet. 3. We agree. The filing date for the '256 patent is August 13, 2020, and the patent issued on October 26, 2021, less than nine months before the filing date of the Petition, July 25, 2022. Ex. 1001, codes (22), (45); Paper 6, 1.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art “would be qualified to perform work as described in the '256 patent through a combination of formal education in computer programming, computer science or similar discipline and/or work experience, such as two or more years of computer programming experience.” Pet. 11 (citing Ex. 1008 ¶¶ 38–39). Petitioner further contends that formal education “in this field may range widely from certificate programs specifically directed to creating apps for mobile devices to advanced degrees up to and including a Ph.D. degree in computer science or a related field, such as computer engineering.” *Id.* at 11–12 (citing Ex. 1008 ¶ 39). Patent Owner proposes that a person of ordinary skill in the art would have “at least a Bachelor’s degree in computer science or a related field, and three to five years of experience in the field.” *See* Prelim. Resp. 7 (citing Ex. 2005 ¶ 12).

We determine, on the current record, that the level of ordinary skill proposed by Petitioner is consistent with the '256 patent and the asserted prior art. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). We adopt that level in deciding whether to institute trial. We will make a final determination as to the level of ordinary skill in the art, however, based on the full trial record.

C. Claim Construction

In this post-grant 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). *See* 37 C.F.R. § 42.200(b) (2022). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art at the time of the invention. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). In construing claims in accordance with their ordinary and customary meaning, we take into account the specification and prosecution history. *Phillips*, 415 F.3d at 1315–17. Additionally, only terms that are in controversy need to be construed, and these need be construed only to the extent necessary to resolve the controversy. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that “only those terms need be construed that are in controversy, 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.* in the context of an AIA proceeding).

Patent Owner proposes constructions for the terms “invoke” and “redirect,” which are at odds with the claim construction positions taken by Petitioner. *See* Prelim Resp. 7–12. Petitioner also proposes constructions for certain claim terms, including the term “invoke.” *See* Pet. 19–23. For the purposes of institution, we find it necessary to address the parties’ arguments as to the two terms argued by Patent Owner.

1. *Invoke*

a) *The Parties' Arguments*

Patent Owner argues that the term “invoke” or “invoking” “should be construed as ‘invoke to run’ or ‘invoking to run,’ from a state in which the installation client was not previously running.” Prelim. Resp. 8–10. Patent Owner argues that the ’256 patent specification repeatedly uses the term “invoked to run” and “does not disclose an instance in which the installation client is invoked to run when it is already running.” *Id.* at 8–9 (citing Ex. 1001, code (57), 1:58–59, 3:49–51, 3:65–67, 4:15–17, 6:49–52, 9:46–49, 13:40–42, 13:64–65, claims 1, 12, 17; Ex. 2005 ¶¶ 50–52). Thus, Patent Owner argues, “a construction of invoking that requires the installation client to already be running would be improper because it is not supported by the written description of the specification.” *Id.* at 9. According to Patent Owner, the extrinsic evidence also supports Patent Owner’s construction. *Id.* (citing Exs. 2003, 2004, 2007; Ex. 2005 ¶¶ 53–56)

Petitioner argues that “the term ‘invoke’ is being used [in the claims] according to its plain and ordinary meaning and is properly understood simply as ‘to call or activate.’” Pet. 19 (citing Ex. 1008 ¶ 56). Petitioner argues that the “surrounding claim language provides context and specifies that the installation client will run in the background once invoked but *does not* specify the state of the installation client when it is *being* invoked (*e.g.*, running or not running).” *Id.* According to Petitioner, this is also true in each of the examples provided in the ’256 Patent of the installation client being invoked. *Id.* (citing Ex. 1001, 4:49–52, 10:24–28, 10:38–39, 12:25–27, 12:56–57, 13:8–9, 14:53–55, Fig. 4A, Figs. 4B, 5, 6).

b) Analysis

Under the claim construction standard applied in this proceeding, “[t]he words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1313). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Id.* (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996)). Neither of those exceptions apply here, and for the reasons below, we find the plain and ordinary meaning of “invoke” or “invoking” to be to call or activate, as proposed by Petitioner.

We begin with the claim language at issue. *See In re Power Integrations, Inc.*, 884 F.3d 1370, 1376 (Fed. Cir. 2018) (“Claim construction must begin with the words of the claims themselves.”). When considering the language of the claim overall, the usage of “invoke” in the claims does not in any way indicate whether the installation client is previously running or not. Claim 1 recites “*invoke*, without exiting said second software application, said installation client for downloading and installing applications on said device *to run in the background on said device*.” Ex. 1001, 21:21–27 (emphasis added). Patent Owner focuses on the phrase “to run,” arguing that the claim 1 itself recites the phrase “invoke . . . to run,” but that reading ignores the rest of the claim language. The claim uses the phrase “to run” in context of the installation client running *in the background* on the device. That is, after all, a key goal of the invention

described in the disclosure. *See, e.g.*, Ex. 1001, 1:31–38 (discussing the problem with redirecting a user to an app store); Pet. Reply 2. Thus, we are not persuaded that claim language necessarily ties “invoke” to only the phrase “to run” instead of the complete phrase “to *run in the background* on said device.”

For the same reason, Patent Owner’s argument that “the specification is clear that ‘invoke’ means ‘invoke to run’” is not persuasive. In each of Patent Owner’s cited instances, the specification uses the words “to run” with “in the background,” thus, indicating that the installation client *runs in the background*, and not, as Patent Owner suggests, to mandate that the client be invoked to *run from a non-running state*. *See, e.g.*, Ex. 1001, 1:58–59 (“When an instant install link is selected, the installation client is invoked to run in the background.”). Moreover, as Petitioner points out, in many instances, the specification simply uses the term “invoke” without any reference to “run,” contradicting Patent Owner’s position that “invoke” has to always mean “invoke to run.” Pet. 19 (citing Ex. 1001, 4:49–52, 10:24–28, 10:38–39, 12:25–27, 12:56–57, 13:8–9, 14:53–55, Figs. 4A, 4B, 5, 6). Patent Owner further argues that “the specification *does not disclose* an instance in which the installation client is invoked to run when it is *already running*,” and that “a construction of invoked that requires the installation client to already be running would be improper because it is not supported by the written description of the specification.” Prelim. Resp. 9 (citing *Merck Co. v. Teva Pharms. USA, Inc.*, 347 F.3d 1367, 1371 (Fed. Cir. 2003)). But neither does the specification expressly disclose an instance in which the installation client is invoked when it is *not running*, and Patent Owner’s construction importing such a requirement would also be improper. A construction of the term “invoke” as “to call or activate” *permits* (not

requires) instances where the installation client is invoked from a running state or from a non-running state—both of which are supported by the specification.

We are further persuaded that the language of dependent claim 3, that the installation client is “closed” (i.e., in a non-running state) when installation is completed, supports a broader construction of the term “invoke,” as recited in independent claim 1. *See* Ex. 1001, 21:36–39. Although claim differentiation does not fully resolve the claim construction issue here, it does provide guidance as to the scope of claim 1 because dependent claim 3 specifically recites the installation client in non-running state, whereas independent claim 1 is silent.

Nor are we persuaded at this stage by Patent Owner’s extrinsic evidence to narrowly construe “invoke.” Patent Owner relies on Dr. Mao’s testimony that the term invoke would have been construed by a person of ordinary skill in the art as invoke to run from a state in which the installation client was not previously running. Prelim. Resp. 9 (citing Ex. 2005 ¶¶ 53–56; Ex. 2007). Relying on a developer guide titled “Running Android tasks in background threads,” Dr. Mao testifies that “[b]efore the thread or program) is invoked, it’s not ‘runnable.’ Once it receives the execute() response, the program is ‘invoked’ to run.” Ex. 2005 ¶ 54 (citing Ex. 2007). The developer guide, however, does not support Dr. Mao’s testimony. The cited portion refers to an interface called “Runnable” with a method that is executed in a thread when invoked; it does not state that the thread is not “runnable” when invoked. *See* Ex. 2007, 3. On the current record, we do not find Dr. Mao’s testimony persuasive to conclude that a person of ordinary skill in the art would have understood the claim term “invoke” to mean invoking the installation client from a state in which it was not

previously running.⁵ For the purposes of institution, we construe “invoke” to mean to call or activate.

2. *Redirect*

a) *The Parties’ Arguments*

Patent Owner argues that “redirect” should be construed as the device “causing the user device to be shifted to an app store without requiring a user interaction.” Prelim. Resp. 10. Patent Owner points out that the specification expressly states that the term “redirected to an app store” means “that user interaction using the device is shifted to a site and/or application for obtaining apps,” and argues that the “disclosed ‘shift[ing]’ of the device to an application for obtaining apps (i.e., app stores) reinforces that the ‘redirect’ causes the browser to go to an app store *without requiring a user interaction*.” *Id.* (quoting Ex. 1001, 11:17–19; Ex. 2005 ¶ 58) (emphasis added). Patent Owner argues that the specification illustrates the lack of user interaction by describing redirecting is done “by a backend element” and that “the browser intercepts the instant install link and redirects to the App Store.” *Id.* at 10–11 (citing Ex. 1001, 12:47–50, 16:36–38, 18:47–51; Ex. 2005 ¶¶ 59–60). Patent Owner further relies on the Dictionary of Computer and Internet Terms, which defines “redirect” as “a tag causing the browser to go to another web page without requiring the user to click.” *Id.* at 10 (citing Ex. 2003). Patent Owner also relies on its expert’s testimony and the use of the term redirect in a HTTP protocol specification. *Id.* at 11–12 (citing Ex. 2004 § 10.3; Ex. 2005 ¶¶ 61–62).

⁵ Patent Owner’s citations to Exhibits 2003 and 2004 (*see* Prelim. Resp. 9) appear to be inadvertent as those are exhibits that Patent Owner relies on for its proposed construction of the term “redirect.” *See id.* at 11.

Petitioner argues that the patentee provided express definitions for a number of claim terms, including the term “redirected to an app store,” and these express definitions are controlling. Pet. 21–22. Specifically, Petitioner points out that “the term ‘redirected to an app store’ means that user interaction using the device is shifted to a site and/or application for obtaining apps.” *Id.* at 22–23 (citing Ex. 1001, 11:17–19).

b) Analysis

For the reasons below, we construe of “redirect” on the current record to mean “to shift user interaction on the device,” and we disagree with Patent Owner that the claim term requires the shifting to take place *without* requiring a user interaction. We begin with the language of the independent claims. Claim 1 recites “redirect said device to an app store for downloading said first software application on said device.” Ex. 1001, 21:38–40. The claim language, therefore, does not recite *any* requirement relating to user interaction during the redirect.

Turning to the specification, both parties agree that it includes an explicit definition of the term “redirected to an app store” as “user interaction using the device is shifted to a site and/or application for obtaining apps.” Pet. 24; Prelim. Resp. 10; Ex. 1001, 11:17–19. If the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). There is no support in this lexicographic definition to import a requirement that the “shifting” take place “without requiring a user interaction.” Thus, the patentees defined the term but did not include any mention of user

interaction, further rejecting Patent Owner's proposed requirement to exclude any user interaction.

Patent Owner points to disclosure that “a backend element” or a “browser” performs the redirection, arguing that “the specification describes that the ‘redirect’ causes the device to go to the App Store without any user interaction.” Prelim. Resp. 10–11 (citing Ex. 1001, 12:47–50, 16:36–38, 18:47–51). None of the cited disclosures mention any requirement to include or preclude user interaction during the redirect. And, even if we understand these disclosures in the manner that Patent Owner argues, the specification makes clear that these are alternate or optional embodiments. *See, e.g.*, Ex. 1001, 12:45–50 (“In alternate embodiments, . . .”), 16:35–38 (“Optionally, the device has an installed browser . . .”). Given the specification's express description of those embodiments as non-limiting examples, nothing in the specification indicates “a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906–08 (Fed. Cir. 2004) (declining to limit claim scope to disclosed embodiments where the specification did “not expressly or by clear implication reject the scope of the invention” to those embodiments); *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 843–44 (Fed. Cir. 2010) (“[A] claim is not limited to the embodiments described in the specification unless the patentee has demonstrated a clear intention to limit the claim's scope with words or expressions of manifest exclusion or restriction.” (internal quotation marks omitted)).

We turn now to Patent Owner's extrinsic evidence. Patent Owner argues that the Dictionary of Computer and Internet Terms and the HTTP protocol specification support Patent Owner's proposed construction of

“redirect.” Prelim. Resp. 11 (citing Ex. 2003; Ex. 2004 § 10.3; Ex. 2005 ¶ 61). The HTTP protocol specification cited by Patent Owner includes a section titled “Redirection 3xx,” that states “[t]he action required *MAY* be carried out by the user agent without interaction with the user *if and only if*” See Ex. 2004, 61 (emphasis added). Neither Patent Owner nor its expert explain why the “redirect” action recited in the claims is limited to this “Redirection 3xx” action listed in the HTTP protocol specification, nor does the disclosure in this protocol specification mandate that *all* redirect actions occur without requiring user interaction. Similarly, the dictionary definition relied upon by Patent Owner specifically defines “redirect *in HTML*,” while the claims are not limited in that manner. See Ex. 2003. We give this extrinsic evidence no weight, and because the intrinsic evidence clearly supports an understanding of “redirect” as permissive of further user interaction, we do not adopt a narrower construction based on the extrinsic evidence selected by Patent Owner. See *Phillips*, 415 F.3d at 1317 (“[W]hile extrinsic evidence ‘can shed useful light on the relevant art,’ we have explained that it is ‘less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’”) (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)); *id.* at 1322–23 (stating that a tribunal may “‘rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents’”) (quoting *Vitronics*, 90 F.3d at 1584 n.6). The current record therefore does not support Patent Owner’s position.

3. Other Claim Terms

We determine that we do not need to expressly construe any other terms in order to determine whether to institute. The parties are reminded

that our construction is preliminary and that our ultimate interpretation of the claim terms will be based on the complete record developed during trial.

D. Subject Matter Eligibility under 35 U.S.C. § 101

Petitioner asserts that the challenged claims are unpatentable under 35 U.S.C. § 101 because they are directed to ineligible subject matter. Pet. 25–48. For the reasons that follow, we are not persuaded that Petitioner establishes it is more likely than not to prevail with respect to this ground at this stage of the proceeding.

1. Principles of Law

35 U.S.C. § 101 defines patentable subject matter, but the Supreme Court has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). To determine patentable subject matter, the Supreme Court has set forth a two-part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “we evaluate the

focus of the claimed advance over the prior art to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter.” *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1092 (Fed. Cir. 2019) (quotation omitted). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). The Supreme Court has “described step two of this analysis as a search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Id.* at 217–18 (quotation omitted). However, “[t]he abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” *Trading Techs.*, 921 F.3d at 1093 (internal quotation omitted).

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101.⁶ Patent Examining

⁶ 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”). “All USPTO personnel are, as a

Procedure (“MPEP”) now incorporates this revised guidance and subsequent updates at § 2106 (9th ed. Rev. 10.2019, rev. June 2020).⁷

Under MPEP § 2106, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and
- (2) additional elements that integrate the judicial exception into a practical application (“Step 2A, Prong Two”).⁸

MPEP § 2106.04(a), (d).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional activity” in the field; or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

MPEP § 2106.05(d); *See* Guidance, 84 Fed. Reg. at 52, 55, 56.

We evaluate the parties’ arguments under the Office’s Guidance. Our reviewing court has warned that “the Office Guidance is not, itself, the law

matter of internal agency management, expected to follow the guidance.” 84 Fed. Reg. at 51; *see also* October 2019 Update at 1.

⁷ All references to the MPEP are to the Ninth Edition, Revision 10.2019 (Last Revised June 2020), unless otherwise indicated.

⁸ “Examiners evaluate integration into a practical application by: (1) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (2) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.” MPEP § 2106.04(d)(II).

of patent eligibility” and “does not carry the force of law.” *In re Rudy*, 956 F.3d 1379, 1382 (Fed. Cir. 2020); *see also cxLoyalty, Inc. v. Maritz Holdings Inc.*, No. 2021-1307, 2021 WL 416719, *6 n.1 (Fed. Cir. Feb. 8, 2021); *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 760 F. App’x 1013, 1020 (Fed. Cir. 2019). Rather, “it is our [reviewing court’s] case law, and the Supreme Court precedent it is based upon, that must control.” *Rudy*, 956 F.3d at 1383 (citation omitted). Thus, although our analysis here is framed in terms of the Guidance, our decision is based upon governing precedent of the United States Supreme Court and our reviewing court’s interpretation and application thereof.

2. *Alice Step One*

Alice Step One asks whether the claims are directed to a judicial exception, such as an abstract idea. *See Alice*, 573 U.S. at 217. The USPTO Guidance frames this question as a two prong inquiry under Step 2A: Prong 1, whether the claims recite any of the groupings of abstract ideas listed in the Guidance, and if so, Prong 2, whether the abstract idea is integrated into a practical application. *See Guidance*, 84 Fed. Reg. at 54–55.

a) *The Parties’ Contentions*

Petitioner contends that the claims recite the abstract idea of “improving a user experience by downloading and installing software as a background task.”⁹ Pet. 25. Petitioner further contends that “the focus of

⁹Although Petitioner refers generally to the “claims of the ’256 patent” in its contentions relating to *Alice Step 1*, Petitioner notes that “the bodies of independent claims 1, 14, and 21 of the ’256 Patent . . . are substantially the same, and fall together.” Pet. 26–27. Our analysis is therefore directed to limitations recited in independent claims 1, 14, and 21. Because we conclude that these independent claims are not directed to patent-ineligible

the claims of the '256 patent is revealed in the express claim language in element [f3]: 'install[ing] said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground.'" *Id.* at 27. Petitioner argues that "[t]his simple act of multi-tasking—a stated goal of the '256 Patent—is an abstract idea." *Id.* Petitioner contends that the other recited elements surrounding this step recitations amount to nothing more than "the application of an abstract idea using conventional and well-understood techniques." *Id.* at 27–28. According to Petitioner, the claims of the '256 Patent do not result in improvement in the functionality of a computer or computer network nor do they claim a novel technological innovation, and instead, merely recite conventional computer hardware and software elements to achieve the goal of downloading and installing software as a background task, thereby improving a user experience by not disrupting the user. *Id.* at 28. Petitioner further argues that the "technical solution" to this abstract idea, however, "is to run an installation client in the background while the current app remains running in the foreground." *Id.* at 28–29 (citing Ex. 1001, 2:10–12).

Patent Owner responds that Petitioner's proposed abstract idea overgeneralizes the claims. Prelim. Resp. 17–25. Patent Owner argues that Petitioner's abstract idea—"improving a user experience by downloading and installing software as a background task"—is an overgeneralization of the claims at a high level of abstraction. *Id.* at 18–19 (citing *Enfish*, 822 F.3d at 1337). Patent Owner argues that, instead, "the claims are directed,

subject matter, we do not separately address patent eligibility of dependent claims 2–13, 15–20, and 22 under § 101.

inter alia, to invoking an installation client for download and installation of software—and such installation—without redirecting the user to an app store when the installation client is available, and redirecting the user to an app store when the installation client is not available.” *Id.* at 19. Patent Owner contends that the claims recite not the desired result, but “the specific solution for accomplishing the benefits described in the specification.” *Id.* (citing *Koninklijke KPNN.V. v. Gemalto M2M GMBH*, 942 F.3d 1143, 1151 (Fed. Cir. 2019)).

Next, Patent Owner argues that the ’256 patent claims are directed to a technical solution to a problem particular to the Internet—interrupting of user interaction with an application upon redirection to an app store. *Id.* at 20 (citing Ex. 1001: 1:31–38). Patent Owner argues that this problem could not exist in a pre-computer world. *Id.* (citing *Apple, Inc. v. Mirror World Tech., LLC*, CBM2016-00019, Paper 12, 12–17 (PTAB May 26, 2016)). Patent Owner contends that the problem being solved is nearly identical to that from *DDR Holdings*, which itself was a problem particular to the Internet. *Id.* at 20–21 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014); Ex. 1001, 1:22–38). Patent Owner further argues that the patent claims “provide an additional technical solution to a problem ‘particular to the Internet,’” which is online fraud in “the pay per click context with malware used to simulate ad clicks or intercept referral IDs.” *Id.* at 25 (citing Ex. 1001, 1:39–48, 2:54–61).

b) Analysis

On the current, preliminary record, we are persuaded by Patent Owner’s argument. Petitioner’s analysis of the independent claims described above only loosely corresponds to the actual limitations recited in the claim. The Federal Circuit has “cautioned that courts ‘must be careful to

avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims.” *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016) (quoting *In re TLI Commc ’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016)). But “failing to account for the specific requirements of the claims” is what Petitioner’s analysis of the claim limitations appears to do. Petitioner’s argument that “the focus of the claims” is captured by a *single* claim element (f3) not only ignores that that limitation recites performing two *specific software* tasks simultaneously—which we are not persuaded is an abstract idea—but also asks us to disregard multiple technical aspects recited in the claims, such as identifying a link, determining whether an installation client is available on the device, invoking the installation client, and redirecting to the device an app store. *See, e.g.*, Ex. 1001, 21:12–41. That is, under Step 2A of the Guidance, we are neither persuaded that limitation f3, which Petitioner points us to, recites an abstract idea (Prong 1), nor that the other limitations recited in the independent claims fail to integrate the alleged abstract idea into a practical application (Prong 2).

Petitioner characterizes the claims as directed to *multitasking*, which Petitioner describes as an example applied to improve a user experience, i.e., as related to organizing human activity. Pet. 29. Although the Guidance recognizes certain methods of organizing human activity, including certain activity between a person and a computer, as constituting a patent-ineligible abstract idea, we are not persuaded that the claims here fall within the scope of such activity. *See* Guidance, 84 Fed. Reg. at 52 (listing fundamental economic principles or practices, commercial or legal interactions, and managing personal behavior or relationships as organizing human activity). The claimed invention may *result in* multitasking on the device, but the

claims are directed to downloading and installing an application in the background instead of directing the user to an app store, thereby maintaining user experience with the foreground application, and do not recite an abstract idea. And although that process does result in improving user experience, the claims recite more than that mere result; they recite specific steps—invoking, without exiting the foreground software application, the installation client for downloading and installing applications on the device to run in the background—that accomplish the desired result. *See Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305–06 (Fed. Cir. 2018) (finding a method that employs a new kind of file in a computer security system directed to a non-abstract improvement in computer functionality, rather than the abstract idea of computer security writ large). Petitioner thus fails to establish sufficiently that the claims are directed patent ineligible subject matter under Step 2A of the Guidance.

We also agree with Patent Owner that the challenged claims are somewhat similar to those that the Federal Circuit held patentable in *DDR Holdings*. The claims there were directed to a method of generating a composite webpage that combined visual elements of a host website with content from a third-party, e.g., by combining the logo, background color, and fonts of the host website with product information from a merchant. *DDR Holdings*, 773 F.3d at 1248. When a user clicked on a link on the host website, the system would construct the composite web page comprising a look and feel description from the host website along with content based on product information from the merchant’s product catalog. *Id.* at 1250. The court held those claims were not directed at an abstract idea because they addressed the problem of retaining website visitors that, absent the claimed invention, would be instantly *transported away* from a host’s website *after*

clicking on an advertisement and activating a hyperlink. *Id.* at 1257.

Because the claims addressed the challenge of retaining control over the attention of the customer in the context of the Internet, the court found them patent-eligible under section 101. *Id.*

The challenged claims here solve an analogous problem. The '256 patent specification explains that a significant problem with the conventional use of an app store to install advertised apps is poor ad conversion. *See* Ex. 1001, 1:22–30. Specifically, the problem is that a user would be instantly *transported away* from the app being used to an app store *after clicking on an advertisement* for the advertised app, and that redirection would interrupt user interaction with the current app, often resulting in the user deciding not to install the new app or even to install a competing app advertised by the app store. *Id.* at 1:32–34. The claims address that problem of retaining the user's attention to the current app even as the advertised app is installed, resulting in better ad conversion. *Id.* at 2:6–12. Thus, similar to the invention in *DDR Holdings*, the claimed invention here relates to control of the user's attention and addresses a challenge particular to the Internet. *See DDR Holdings*, 773 F.3d at 1257–58. On the other hand, Petitioner's reliance on *PersonalWeb Techs. LLC v. Google LLC* is unhelpful because the claims at issue there do not address similar Internet-centric challenges. *See PersonalWeb*, 8 F.4th 1310, 1316 (Fed. Cir. 2021) (claims directed to the use of an algorithm-generated content-based identifier to perform the claimed data-management function); Pet. 30.

Accordingly, based on the current record, we are not persuaded that Petitioner establishes that it is more likely than not that the claims are directed to a judicial exception under Step 2A of the Guidance.

Nevertheless, because Petitioner has shown that it is more likely than not that challenged claims are unpatentable under 35 U.S.C. §§ 102, 103 (*see infra* §§ III.F–I), we include this ground in the instituted post-grant review. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

E. Overview of the Asserted Art for Anticipation and Obviousness

1. Pasha (Ex. 1003)

Pasha discloses a method for installing applications on computing devices, including mobile devices. Ex. 1003, 1:5–6, 1:36–38. Specifically, Pasha discloses a “direct application install feature” that allows a user to download and install a downloadable application, while interacting with a host application. *Id.* at 1:36–50. The downloadable application may be downloaded directly without requiring the user to interact with an app store. *Id.* at 1:50–54.

Figure 1 of Pasha is reproduced below.

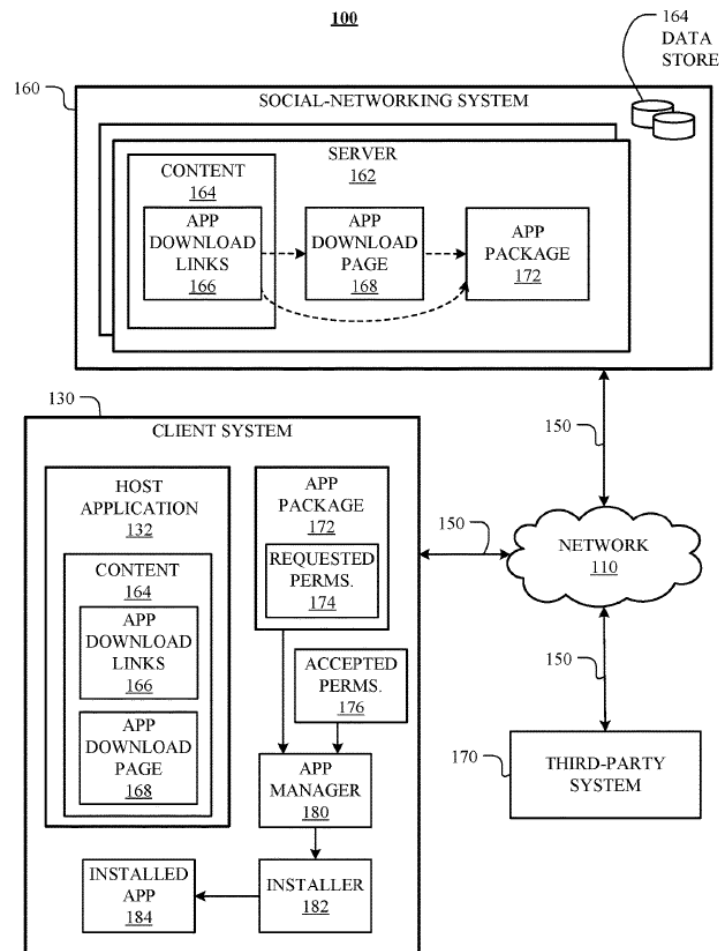


FIG. 1

Figure 1, above, shows computer network environment 100, including client system 130, social-networking system 160, and third-party system 170, all connected by network 110. *Id.* at 2:31–35. Client system 130 includes host application 132 which includes app download links 166. *Id.* at 8:6–31. Client system 130 also includes App Manager 180 and Installer 182. *Id.* at 8:59–9:38.

Pasha explains that App Manager 180 may control portions of the application download and install process. *Id.* at 17:21–24. Specifically, Pasha discloses that “App Manager 180 may perform at least a portion of one or more of the steps 310–350 of FIG. 3, and the Installer may perform at

least the portion of step 350 that involves requesting the operating system of the client device 130 to install the application package on the client device 130.” *Id.* at 17:35–39.

Figure 3 of Pasha is reproduced below.

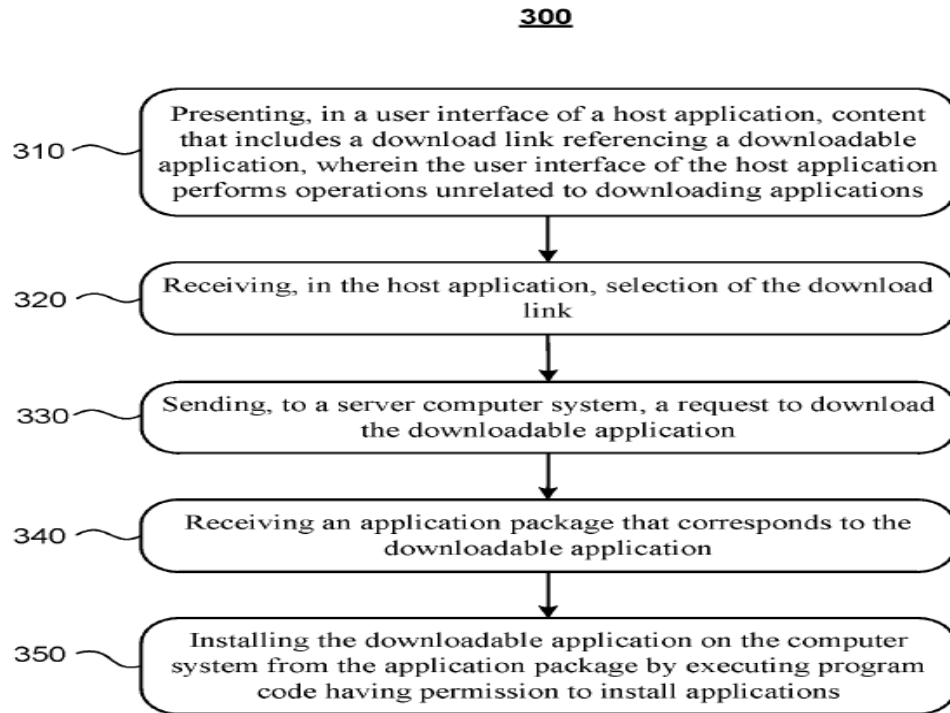


FIG. 3

Figure 3, above, shows method 300 for downloading and installing applications. *Id.* at 16:28–60. The method begins when a user interface presents a download link for an application in a host application (step 310). *Id.* Next, the host application receives selection of the download link (step 320) and sends a request to download the application to a server computer system (step 330). *Id.* at 18:59–19:5, 19:51–61. The downloadable application is then received as an application package in step 340, and the application package is installed (step 350). *Id.* at 19:54–65. During installation, the user may continue to use host application 132 while application package 172 is downloaded and installed. *Id.* at 19:65–20:4.

Pasha discloses checking for App Manager 180 and Installer 182 when a download is requested. *Id.* at 18:50–54. If the App Manager and Installer are not present, “the ordinary app store for the operating system may be used as a fallback.” *Id.* at 18:55–58.

Pasha discloses that client system 130 may be an electronic device, including hardware, software, or a combination of components capable of carrying out the described method. *Id.* at 3:20–25. The client system may be a computer system connected to a network. *Id.* at 3:25–30. More specifically, Pasha discloses computer system 600, which may be a mobile telephone, with software to perform the disclosed method. *Id.* at 23:29–46.

2. *Yamada (Ex. 1004)*

Yamada teaches master installer software that sequentially runs a plurality of software installers allowing a user to perform all of the installation operations as if installing one piece of software. Ex. 1004 ¶ 14. Yamada teaches closing the installation software when the installation operation commands are completed. *Id.* ¶ 66.

3. *Molinet (Ex. 1005)*

Molinet discloses contextual deep linking of mobile applications. Ex. 1005 ¶ 3. Molinet discloses that the development of app stores on smartphones has created a system where users can easily install new applications and add functions to their devices. *Id.* ¶ 5. Molinet describes a method for improving the cohesiveness between applications using contextual deep linking. *Id.* ¶¶ 5, 16. Molinet describes a contextual deep link as indicating a particular configuration for an application, for example a reference to a location in an application. *Id.* ¶ 25. Other configurations may include particular settings, parameters, variables, and other options. *Id.*

F. Anticipation by Pasha

Petitioner contends that claims 1, 2, 4–15, and 17–22 are unpatentable under 35 U.S.C. § 102(a) as anticipated by Pasha. Pet. 49–69. For the reasons that follow, we are persuaded that the evidence, including Dr. Almeroth’s testimony, sufficiently supports Petitioner’s arguments and therefore establishes it is more likely than not to prevail with respect to this ground at this stage of the proceeding.

1. Independent Claim 1

a) Preamble

Claim 1 recites “[a] network–connected device configured for running software applications, comprising.” Ex. 1001, 21:2–3. Petitioner argues that Pasha discloses a client system 130 and software running on one or more computer system 600 performing various steps disclosed in Pasha. Pet. 49 (citing Ex. 1003, 1:25–38; 3:32–35, 23:14–56, Fig. 6).

Patent Owner does not specifically respond to this argument. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented sufficiently supports, for purposes of institution, Petitioner’s assertion that Pasha discloses the preamble of claim 1.¹⁰

b) Limitations 1[a]–1[c]

Limitations 1[a]–[c] recite structural features of the claimed device. Specifically, limitation 1[a] recites “a network interface configured for communicating over a network.” Ex. 1001, 21:4–5. Limitation 1[b] recites “at least one non-transitory computer readable storage medium storing

¹⁰ At this stage of the proceeding, we do not decide whether the preamble of claim 1 is limiting.

instructions.” *Id.* at 21:6–7. Limitation 1[c] recites “at least one processor associated with said network interface and said storage medium, configured for executing said instructions to.” *Id.* at 21:8–10. Petitioner contends that Pasha discloses computer system 600 which includes processor 602 for executing instructions, memory 604 for storing instructions executed by processor 602, and communication interface 610. Pet. 50–51 (citing Ex. 1003, 23:57–24:65, 29:31–30:36, Fig. 6). Petitioner further contends that Pasha’s computer system 600 includes communication interface 610 for communicating over a network. *Id.* at 50 (citing Ex. 1003, 25:50–26:15, Figs. 1, 6).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses these limitations.

c) Limitation 1[d]

Limitation 1[d] recites “identify[ing] that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in content displayed on said device by the second software application.” Ex. 1001, 21:11–16. Petitioner contends that Pasha describes a mobile device (client device 130) executing previously-installed host application 132. Pet. 52 (citing Ex. 1003, 7:61–66). Petitioner further contends that Pasha discloses the user interface of host application 132 (second application) presents content to the user that includes a download link 166 referencing a downloadable application (first software application). *Id.* (citing Ex. 1003, 16:31–34, 1:50–54). Petitioner argues that “download link 166 presented in the content of host application 132 for download of another

application discloses the claimed ‘link for installation of a first software application’ which is ‘embedded in content displayed on said device by the second application.’” *Id.* at 52–53 (citing Ex. 1003, 6:67–7:8, 16:61–17:3, Fig. 3). According to Petitioner, Pasha discloses that user selection of the link can occur through “the touch or click on a hyperlink that has the text ‘Download Now’” displayed in the host application while the user is interacting with the host application. *Id.* at 53 (citing Ex. 1003, 18:59–19:9, 8:44–58, 21:53–57).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

d) Limitation 1[e]

Limitation 1[e] recites “in response to said identifying, determine whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application.” Ex. 1001, 21:17–21. Petitioner argues that “Pasha discloses that the host application 132 may use an App Manager 180 and Installer 182 ‘to perform the installation and download operations’ associated with downloading the application from the host application user interface.” Pet. 54 (citing Ex. 17:21–34). Thus, Petitioner argues that App Manager 180 and Installer 182 disclose the claimed “installation client for downloading and installing applications on said device.” *Id.* Petitioner further argues that Pasha discloses that when “a download is requested,” checking to determine whether App Manager 180 and Installer 182 are “present and accessible on the client device,” and thus discloses determining

whether an installation client is available. *Id.* (citing Ex. 1003, 8:53–67, 18:50–54).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

e) Limitation 1[f]

Limitation 1[f] recites “when said installation client is available on said device.” Ex. 1001, 21:22. Petitioner argues that “[e]lement [f] is a transitional statement regarding the availability of the installation client that, when true, proceeds to elements [f1]–[f3].” Pet. 55. Petitioner argues that Pasha discloses that, when available, App Manager 180 and Installer 182 may be used on the client device. *Id.* (citing Ex. 1003, 18:36–58, 22:24–25; Ex. 1008 ¶ 78).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

f) Limitation 1[f1]

Limitation 1[f1] recites “invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device.” Ex. 1001, 21:23–26. Petitioner argues that Pasha discloses that when the App Manager 180 and the Installer 182 are available, the user may continue to use the host application 132 in the foreground while downloading and installing application package 172 in the background. Pet. 55–56 (citing Ex. 1003, 19:62–20:9). Petitioner argues that “Pasha discloses that the App

Manager 180 and the Installer 182 ‘run in the background’ during the downloading and installing of the application package 132.” *Id.* at 55 (citing Ex. 1003, 19:67–20:4). Petitioner argues that a person of ordinary skill in the art “would understand from this description in Pasha that these software applications were invoked, i.e., called or activated, to perform their desired functions.” *Id.* at 56 (citing Ex. 1008 ¶ 80). According to Petitioner, “Pasha confirms this understanding with the express disclosure in claim 5 that the ‘downloading and installing are performed by application manager program code invoked by the host application.’” *Id.* (citing Ex. 1003, 28:8–10).

Patent Owner argues that Pasha does not disclose the “invoke” limitation for multiple reasons. First, Patent Owner contends “Petitioner has put forth *no expert support* for its arguments about this limitation, and attorney argument alone is insufficient to overcome Patent Owner’s expert testimony.” Prelim. Resp. 13 (citing Pet. 55).

Second, Patent Owner argues Pasha does not disclose an affirmative “invoking” step required by this limitation and “Pasha’s ‘use’ fails to disclose any *invoking action* that would cause the App Manager 180 and Installer 182 to run.” Prelim. Resp. 14 (citing Ex. 2005 ¶ 66).

Third, Patent Owner argues that “Petitioner applies an erroneous construction,” and because “the App Manager 180 is already running, this disclosure cannot meet the invoke limitation.” Prelim. Resp. 14–15 (citing Ex. 2005 ¶ 67). Moreover, Patent Owner argues, when invoking occurs in Pasha, the download “has *already* occurred, and thus the invoking cannot be invoking of an ‘installation client *for downloading* and installing.”” *Id.*

At this stage of the proceeding, we find Petitioner’s arguments persuasive. To the extent Patent Owner’s arguments are based on its proposed construction of “invoke” as requiring invoking from a state in

which the installation client was *not* previously running, we do not adopt Patent Owner’s construction, and therefore, find those arguments unpersuasive.

As to Patent Owner’s argument that the actual invoking is not disclosed in Pasha, we are persuaded that there is ample teaching of the invoking step. Patent Owner does not dispute that Pasha’s App Manager and Installer are used for downloading and installation of the application package. *See, e.g.*, Ex. 1003, 17:39–43, 8:44–67. As Petitioner points out, Pasha expressly discloses that the App Manager is invoked because Pasha’s claim 5 recites that “the ‘downloading and installing are performed by application manager program code *invoked* by the host application.’” Pet. 56 (citing Ex. 1003, 28:8–10). In view of this disclosure, Dr. Almeroth testifies a person of ordinary skill in the art would have understood “that these software applications were invoked, i.e., called or activated, to perform their desired functions.” Ex. 1008 ¶ 79.¹¹ Dr. Mao, on the other hand, does not address Pasha’s disclosure or explain why a person of ordinary skill in the art would have understood that downloading and installing of applications occurs without invoking these applications. *See* Ex. 2005 ¶¶ 66–67. Accordingly, we give Dr. Almeroth’s testimony weight for the purposes of institution.

Based on our review of the current record, we therefore determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

¹¹ Patent Owner’s argument that Petitioner has put forth no expert support for its arguments about this limitation (Prelim. Resp. 13) is based on what appears to be Petitioner’s inadvertent citation to paragraph 80 instead of 79 of Dr. Almeroth’s declaration. Pet. 56.

g) Limitation 1[f2]

Limitation 1[f2] recites “instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface in the background on said device, without directing said user interaction to an app store.” Ex. 1001, 21:28–32. Petitioner argues that Pasha discloses that selecting app download link 166 initiates download of Application Package 172 by App Manager 180 via network 150. Pet. 56–57 (citing Ex. 1003, 8:44–64, 17:39–43, Fig. 3). Petitioner argues that Pasha also discloses installing applications in the background and without requiring the user to interact with an app store. *Id.* at 57–58 (citing Ex. 1003, 1:50–57, 16:28–31, 16:55–60, 17:4–20, 17:39–43, 19:67–20:9, 23:14–28, 25:50–26:15).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

h) Limitation 1[f3]

Limitation 1[f3] recites “using said downloaded installation file, install said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground.” Ex. 1001, 21:33–37. Petitioner argues that Pasha discloses that Installer 182 installs application package 172 on client device 130 in the background while the user interacts with host application 132 in the foreground. Pet. 58–59 (citing Ex. 9:22–25, 16:35–48, 19:62–65, 19:67–20:9, Fig. 3).

Patent Owner does not specifically respond to these contentions. *See generally* Prelim. Resp. Based on our review of the current record, we

determine that the information presented supports sufficiently, for purposes of institution, Petitioner's assertion that Pasha discloses this limitation.

i) Limitation 1[g]

Limitation 1[g] recites “when said installation client is unavailable on said device, redirect said device to an app store for downloading said first software application on said device.” Ex. 1001, 21:38–40. Petitioner contends that Pasha discloses that when “a download is requested . . . a check may be performed to determine whether the App Manager 180 and installer 182 are present and accessible on the client device 130,” and that “[i]f the App Manager 180 and Installer 182 are not ‘present and accessible’” during the check, “the ordinary app store for the operating system may be used as a fallback.” Pet. 59 (citing Ex. 1003, 18:50–58). Petitioner argues that Pasha also discloses the conventional process of redirecting to an app store to download software using a link embedded in an advertisement. *Id.* (citing Ex. 1003, 15:25–42, 17:4–19). According to Petitioner, Pasha's instruction to use the “ordinary app store for the operating system as a fallback” when the App Manager 180 and Installer 182 are not present, implicates this earlier description in Pasha of how to perform a redirection to the app store when a download link in an advertisement is selected.” *Id.* at 59–60 (citing Ex. 1008 ¶ 89).

Patent Owner argues that Pasha's use of the app store as a fallback does not disclose the claimed “redirect.” Prelim. Resp. 15. Patent Owner argues that “Pasha merely says that an app store ‘may be used’ if the App Manager 180 and Installer 182 are not present,” and “provides *no disclosure of how* such a fallback would occur, including whether it might require user interaction (*e.g.*, selection of a link or visiting the app store icon) to access the app store.” *Id.* (citing Ex. 2005 ¶ 70). Patent Owner argues that “Pasha

does not teach that no user interaction is required as part of its fallback,” or “that the ‘fallback’ is an action taken *by the device*, such as a processor, as required by the claims.” *Id.* (citing Ex. 2005 ¶ 71).

At this stage of the proceeding, we find Petitioner’s arguments persuasive. To the extent Patent Owner’s arguments are based on its proposed construction of “redirect” as requiring no further user interaction, we do not adopt Patent Owner’s construction, and therefore, find those arguments unpersuasive. As to Patent Owner’s argument that Pasha is deficient in disclosing the redirecting limitation as claimed, we disagree. Pasha repeatedly describes exactly how the app store can be used to download applications based on the selection of a link in an advertisement. *See* Ex. 1003, 15:25–42 (“[S]electing a link in the advertisement may display an app store download page that includes another link the user may select to download and install the application on their mobile device. When the user selects the link, the app store opens, thereby supplanting the application the user was using on the mobile device.”), 17:4–7 (“Previously, when a user selected a link 166 to the downloadable application, an app store would open in the user interface of the client device 130 and replace the host application in the user interface.”). Thus, Pasha discloses how redirecting to an app store works using link selection. Pasha then discloses using the “ordinary app store for the operating system as a fallback” when App Manager 180 and Installer 182 are not present. Ex. 1003, 18:55–58. That Pasha does not repeat for a third time in column 18 the steps of opening

the app store supplanting the current application being used does not render Pasha’s disclosure deficient. Pet. 59–60; Ex. 1008 ¶ 88.¹²

Patent Owner’s argument that “Pasha provides no disclosure of this step being performed by the processor of the mobile device” (Prelim. Resp. 44) ignores that Pasha is titled “Application Installation *System*” and relates to “installing applications on *computing devices*,” which necessarily have processors. Ex. 1003, code (54), 1:5–6, 1:36–38 (“a direct application install feature may be used by third-party applications to download and install additional applications onto a mobile *device*.”) (emphasis added).

Based on our review of the current record, we therefore determine that the information presented supports sufficiently, for purposes of institution, Petitioner’s assertion that Pasha discloses this limitation.

Accordingly, we determine that Petitioner has established it is more likely than not that Pasha anticipates the subject matter of claim 1.

2. *Independent Claims 14 and 21*

Claim 14 recites “a method for installation of software applications on a network-connected device, comprising: executing, by at least one hardware processor operating in said device, program instructions to . . .” and also recites other limitations that are similar to those in claim 1. *See* Ex. 1001, 22:26–61. Petitioner contends that Pasha discloses the preamble because it discloses “software running on one or more computer systems 600 performs one or more steps of one more method described.” Pet. 49 (citing Ex. 1003, 23:14–56, Fig. 6). For the remaining limitations of claim 14, Petitioner

¹² Patent Owner’s argument that Petitioner has put forth no expert support for its arguments about this limitation (Prelim. Resp. 16) is again based on what appears to be Petitioner’s inadvertent citation to paragraph 89 instead of 88 of Dr. Almeroth’s declaration. Pet. 60.

combines its arguments for claim 14 with those directed to the limitations of claim 1, discussed above. *Id.* at 50–60; Ex. 1008 ¶¶ 63–89.

Claim 21 recites “a non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a network-connected device, said operations comprising . . . ,” and also recites other limitations that are similar to those in claim 1. Ex. 1001, 23:16–24:22. Petitioner contends that Pasha discloses the recited instructions because it discloses a computer system 600 with “software running on one or more computer systems 600 performs one or more steps of one more method described.” Pet. 49 (citing Ex. 1003 at 23:14–56). For the remaining limitations of claim 21, Petitioner combines its arguments for claim 21 with those directed to the limitations of claim 1, discussed above. *Id.* at 50–60; Ex. 1008 ¶¶ 63–89.

Patent Owner does not present separate argument for claims 14 and 21. *See* Prelim. Resp. 12–17 (arguing all independent claims together).

For the reasons discussed above with regard to claim 1, and because Petitioner sufficiently shows that Pasha discloses the additional elements recited in claims 14 and 21, we determine that Petitioner has established it is more likely than not that Pasha anticipates the subject matter of claims 14 and 21.

3. *Dependent Claims 2, 4–13, 15, 17–20, and 22*

Petitioner argues that Pasha additionally anticipates dependent claims 2, 4–13, 15, 17–20, and 22. Pet. 64–74.

Claims 2, 15 and 22 depend from independent claims 1, 14, and 21, respectively. Claim 2 further recites “wherein said at least one processor is further configured for executing said instructions to redirect said device to

said app store when said invocation of the installation client fails,” and claims 15 and 22 recite a similar limitation. Ex. 1001, 21:42–45, 22:63–64, 24:22–26. Petitioner contends that Pasha discloses that when “a download is requested, . . . a check may be performed to determine whether the App Manager 180 and Installer 182 are present and accessible on the client device 130,” and if not accessible, then “the ordinary app store for the operating system may be used as a fallback.” Pet. 60–61 (citing Ex. 1003, 18:50–54, 18:55–58). Petitioner contends that person of ordinary skill in the art would have understood “that if invocation of a software application failed, that would be a case where the application would not be ‘accessible,’” and the fallback redirection to the app store is triggered. *Id.* at 61 (citing Ex. 1008 ¶ 92).

Claim 4 depends on claim 1 and additionally recites “wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file.” Ex. 1001, 21:51–55. Petitioner contends that Pasha discloses download links 166 which are displayed in the content 164 of the host application 132 may be hyperlinks that include “Uniform Resource Locator(s) (‘URLs’) identifying the network location (e.g., network host name or address, and path on the host)” from which an application package 172 may be downloaded by the client device 130. Pet. 61 (citing Ex. 1003, 7:2–8). Petitioner further contends that Pasha discloses that the “App Manager [180] may download the application package 172 . . . from the server 162,” i.e., the network address contained in the hyperlink URL. *Id.*

Claim 5 depends on claim 4 and additionally recites “wherein said installation client retrieves said respective network address over said

network from an app information server.” Ex 1001, 21:57–60. Petitioner contends that Pasha discloses that the content of the host application 132, which may include one or more application download links 166 in the form of URL hyperlinks having network address information contained therein, may be provided by third party system 170. Pet. 62 (citing Ex. 1003, 7:2–17). According to Petitioner, the third party system may be hosted by an app store operator, such as a vendor of the client device or the client device’s operating system. *Id.* (citing Ex. 1003, 7:18–20). Petitioner contends that Pasha therefore discloses the network address contained in the URL provided in the content of the host app 132 is received over network 150 from the app store operator, i.e., an app information server. *Id.* (citing Ex. 1008 ¶ 95).

Claim 6 depends on claim 4 and further recites “wherein said installation client constructs said respective network address using information included in said link.” Ex. 1001, 21:61–63. Petitioner contends that “constructing” could be “for example by retrieving the address for the app specified by the link from a non-transitory internal memory device 100.” Pet. 62–63 (quoting Ex 1001 at 9:57–59). Petitioner further contends that the App Manager 180 of Pasha “constructs” the network address using information contained in a URL of an application download link 166, so that App Manager 180 can download the application package 172 from that network address. *Id.* at 63–64 (citing Ex. 1001, 9:57–59; Ex. 1003, 7:2–8, 8:44–67, 17:35–18:3; Ex. 1008 ¶¶ 99–100).

Claims 7 and 17 depend from independent claims 1 and 14, respectively, and further recite “wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.” Ex. 1001, 21:64–67, 23:1–4.

Petitioner contends that Pasha discloses the application download link 166 displayed in the content of the host application may be in the form of a URL hyperlink “identifying the network location . . . from which an application package 172 may be downloaded by the client system 130,” and that selection of that link automatically initiates the download of the associated application package 172. Pet. 64–65 (citing Ex. 1003, 7:2–9, 8:44–58, 17:35–43; Ex. 1008 ¶¶ 101–102). Petitioner argues that although Pasha does not explicitly use the term “deep link,” Pasha’s download link 166 is functionally a deep link because selection of the link causes automatic download to ensue, without any additional user input, by invocation of App Manager 180. *Id.* at 65.

Claims 8 and 18 depend on independent claims 1 and 14, respectively, and further recite “wherein said installation client prompts for user confirmation of said installation of said first software application and performs said installation only when said confirmation is obtained.” Ex. 1001, 22:1–5, 23:5–8. Similarly, claims 9 and 19 depend on independent claims 1 and 14, respectively, and further recite “wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained.” Ex. 1001, 22:6–11, 23:9–13. Petitioner contends that Pasha discloses that the “App Manager 180 may control the download process by checking permissions,” and may “present a request to the user for approval to perform operations corresponding to the requested permissions.” Pet. 66 (citing Ex. 1003, 8:67–9:14, 16:8–17, 22:22–51). Petitioner further contends that Pasha discloses that if the set of permissions accepted by the user 176 does not match the set of requested permissions 174, “then the application is not

downloaded and installed,” and “[i]f the lists match, then the application download and install process may be initiated.” *Id.* (citing Ex. 1003, 20:21–38, 9:15–38). Petitioner further contends that Pasha discloses that the permission request may be performed at any suitable point in the download and install operations prior to execution of the installed application 184, including prior to downloading the application package. *Id.* at 66–67 (citing Ex. 1003, 17:39–43, 20:28–31, 22:43–51).

Claim 10 depends on claim 9 and further recites “wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device.” Ex. 1001, 22:11–16. Petitioner contends that the “prompting for user confirmation” in Pasha includes a dialog box which “present[s] a request to the user for approval to perform operations corresponding to the requested permissions.” Pet. 67 (citing Ex. 1003, 8:67–9:7, 16:8–3, 22:22–42). Petitioner contends that Pasha further discloses that the “requested permissions” may be provided by the application developer in the application package 172. *Id.* (citing Ex. 1003, 7:42–50). According to Petitioner, Pasha discloses that App Manager 180 may download the application package 172 from the server 162 onto the client device 130 via the network 150 using communication interface 610. *Id.* (citing Ex. 1003, 8:59–67, 17:39–43).

Claim 11 depends on claim 9 and further recites “wherein said installation client resumes running in the background when a response is received to said prompting.” Ex. 1001; 22:18–20. Petitioner contends that Pasha discloses that if the accepted permissions 176 and requested permissions 174 match, “then the application download and install process

may be initiated.” Pet. 68 (citing Ex. 1003, 19:67–20:9, 20:31–38; Pet. § X(B)(1)(h)).

Claims 12 and 20 depend on independent claims 1 and 14, respectively, and further recites “wherein said device comprises a non-mobile device.” Ex. 1001, 22:21–22, 23:14–15. Petitioner contends that Pasha discloses that the “a client system 130 may include a computer system such as a desktop computer . . . other suitable electronic device, or any suitable combination thereof.” Pet. 68 (citing Ex. 1003, 3:25–32). According to Petitioner, this disclosure contemplates client systems 130 as mobile and non-mobile devices.

Claim 13 depends on claim 1 and further recites “wherein said installation client comprises integrated security processes.” Ex. 1001, 22:23–25. Petitioner contends that Pasha discloses that “‘application package 172 may be encrypted and signed, e.g., using public-key encryption,’ to prevent unauthorized modification,” and that “an encrypted application package may be decrypted using appropriate decryption keys at the time it is installed” on the client device 130. Pet. 69 (citing Ex. 1003, 7:53–57). Petitioner further contends that application package 172 may be provided on a server of a social-networking system 160 or other third-party system 170 and signed with a digital signature using a private key associated with either the social-networking system 160 or other third-party system 170, and Pasha’s client may verify the downloaded application package. *Id.* (citing Ex. 1003, 17:35–50, 18:4–6).

Patent Owner does not present separate arguments directed specifically at dependent claims 2, 4–13, 15, 17–20, and 22. *See generally* Prelim Resp. Based on our review of the current record, and in particular, Petitioner’s arguments set forth above as well as portions of Pasha and

Dr. Almeroth's testimony cited above, we determine that Petitioner has established it is more likely than not that Pasha anticipates the subject matter of claims 2, 4–13, 15, 17–20, and 22.

G. Obviousness over Pasha

Petitioner argues that dependent claims 2, 3, 5–7, 15–17, and 22 are unpatentable under 35 U.S.C. § 103 as obvious in view of Pasha.

Pet. 74–82. For the reasons that follow, we are persuaded that the evidence, including Dr. Almeroth's testimony, sufficiently supports Petitioner's arguments and therefore establishes it is more likely than not it will prevail with respect to this ground at this stage of the proceeding.

Claims 2, 15, and 22 depend from independent claims 1, 14, and 21, respectively. Claim 2 further recites “wherein said at least one processor is further configured for executing said instructions to redirect said device to said app store when said invocation of the installation client fails,” and claims 15 and 22 recite a similar limitation. Ex. 1001, 21:42–45, 22:63–64, 24:22–26. Petitioner contends that Pasha discloses that when “a download is requested, . . . a check may be performed to determine whether the App Manager 180 and Installer 182 are *present and accessible* on the client device 130,” and if not “present and accessible,” then “the ordinary app store for the operating system may be used as a fallback.” Pet. 76 (citing Ex. 1003, 18:50–54, 18:55–58; Pet. § X(B)(2)(h)). Petitioner contends that person of ordinary skill in the art would have understood “that if invocation operation failed, the software application being invoked would be considered not ‘accessible,’” and such a person “would appreciate that a ‘fallback’ described for use when particular software was not ‘present and accessible’ would also be the obvious ‘fallback’ in the event that invocation

of that same software failed.” *Id.* (citing Ex. 1008 ¶¶ 135–136). Thus, Petitioner contends, a person of ordinary skill in the art would have understood that redirecting the device to the app store when invocation of the App Manager 180 and Installer 182 failed was an obvious modification to Pasha. *Id.*

Claims 3 and 16 depend on claims 1 and 14, respectively, and further recite “wherein said at least one processor is further configured for executing said instructions to close said installation client when said installation of said first software application is completed.” Ex. 1001, 21:46–50, 22:65–67. Petitioner contends that although Pasha does not explicitly disclose closing the installation client, it would have been an obvious design choice to a person of ordinary skill in the art to have Pasha’s App Manager 180 and Installer 182 close after installation of the application is complete. Pet. 70 (citing Ex. 1008 ¶¶ 121–122). Petitioner contends that a person of ordinary skill in the art “would have understood a choice between speed (having the app remain open and ready to perform its function again) or conserving resources (closing the app), such as storage, processing power, and battery life.” *Id.* Petitioner further contends that a person of ordinary skill in the art “would have understood that computers have limited computational power, and running applications, processes, and other modules on mobile devices which are not active and/or not providing any utility to the computer would waste those limited computational resources,” and would have been motivated to close Pasha’s App Manager and Installer after an application package had been downloaded and installed. *Id.* at 70–71 (citing Ex. 1008 ¶ 122).

Claim 5 depends from claim 4 and further recites “wherein said installation client retrieves said respective network address over said

network from an app information server.” Ex. 1001, 21:56–59. Petitioner contends that to the extent Pasha does not anticipate this claim, it renders it obvious. Pet. 71 (citing Pet. § X(B)(2)(b)). Petitioner contends that even if Pasha does not expressly disclose whether the network address is received by the App Manager, (1) it was well known that the functionality provided by separate software applications, modules, or components which all run on the same device in parallel could readily be substituted for one another, or combined into a single application, and (2) the App Manager would be a routine design choice to retrieve the network address. *Id.* at 71–72 (citing Ex. 1008 ¶¶ 123–124). Petitioner points out that the ’256 patent describes that UX module 710, which provides App Details 711 for display, and the Download & Installer Module 720, which downloads and installs the new app when the instant install link is selected, are separate modules “performing separate functions.” *Id.* (citing Ex. 1001, 14:10–37, 9:62–10:3). Petitioner therefore contends that the specific functional block that performs this routine operation would have merely been a matter of design choice for a person of ordinary skill in the art, and that in the case of Pasha, the App Manager, which ultimately uses the retrieved network address, would have clearly been a logical choice for performing this function. *Id.* at 72–73 (citing Ex. 1008 ¶ 125).

Claim 6 depends on claim 4 and further recites “wherein said installation client constructs said respective network address using information included in said link.” Ex. 1001, 21:61–63. Petitioner contends that to the extent Pasha does not anticipate this claim, it renders it obvious. Pet. 73 (citing Pet. § X(B)(2)(c)). Petitioner contends that it was well known that “the functionality provided by separate software applications, modules, or components which all run on the same device in parallel could readily be

substituted for one another, or combined into a single application” and “the specific functional block that performs a particular operation would have merely been a matter of design choice” for a person of ordinary skill in the art. *Id.* Petitioner contends that since Pasha’s App Manager 180 ultimately uses the constructed network address, it would have clearly been a logical and suitable choice for providing this function. *Id.* (citing Ex. 1008 ¶ 125).

Claims 7 and 17 depend on claims 1 and 14, respectively, and further recite “wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.” Ex. 1001, 21:64–67, 23:1–4. Petitioner contends that to the extent Pasha does not anticipate these claims, it renders them obvious. Pet. 74–75. Petitioner further contends that even if Pasha does not explicitly use the term “deep link,” a person of ordinary skill in the art would have understood that application download link 166 to functionally be a deep link because selection of the application download link 166 causes “automatic” download to ensue, without any additional user input. Pet. 74–75 (citing Ex. 1008 ¶ 128–130). Petitioner further contends that “deep links” were well understood for specifying a specific page within a website and/or a specific location within an app, and such use in Pasha would have been recognized by a person of ordinary skill in the art as an obvious design choice. *Id.* (citing Ex. 1007; Ex. 1008 ¶¶ 128–131).

Patent Owner does not specifically address any of Petitioner’s citations and arguments for this ground. *See* Prelim. Resp. 17 (arguing that Grounds III–V are deficient because “Petition’s challenge to claims 3, 5–7, 16, and 17 suffers from the same flaws as detailed above by way of dependency on independent claims 1, 14, and 21”). Based on our review of the current record, and in particular, Petitioner’s arguments set forth above

as well as portions of Pasha and Dr. Almeroth’s testimony cited above, we determine that Petitioner has established it is more likely than not to prevail in showing that the Pasha renders the subject matter of claims 2, 3, 5–7, 15–17, and 22 obvious.

H. Obviousness over Pasha and Yamada

Petitioner argues that dependent claims 3 and 16 are unpatentable under 35 U.S.C. § 103 as obvious by Pasha in view of Yamada. Pet. 77–80. Petitioner contends that Yamada discloses a “master installer,” which includes an “administrative account installer,” that performs software installation operations and receives “installation operation commands.” Pet. 77 (citing Ex. 1004 ¶¶ 35, 45, 52–66). Petitioner further contends that Yamada discloses that when “execution of all of the installation operation commands is completed, the administrator account installer is closed.” *Id.* at 77–78 (citing Ex. 1004 ¶ 66).

Petitioner argues that a person of ordinary skill in the art would have been motivated to combine Pasha and Yamada because they are in the same field of endeavor, i.e., the installation of software on computing device using installation applications. Pet. 78 (citing Ex. 1003, 8:59–9:14, 17:21–18:58; Ex. 1004 ¶¶ 14–15). Petitioner further argues that Yamada teaches closing an installation after completion to avoid lowering the computer’s security level, and that those teachings would have motivated a person of ordinary skill in the art to close Pasha’s App Manager 180 and Installer 182 after the downloading and installation of the app package 172 onto the client device 130. *Id.* at 79–80 (citing Ex. 1004 ¶¶ 14, 17–18; Ex. 1008 ¶¶ 142–143). According to Petitioner, such a modification to Pasha’s system would have “increased the level of security on the client device,” and

a person of ordinary skill in the art “would have been motivated to apply Yamada’s closing of its installer feature to Pasha’s App Manager and/or Installer to, for example, reduce the possibility of the user’s security credentials being comprised, and to reduce the likelihood of the App Manager and Installer from being compromised by malware or other cyber threats.” *Id.* at 80 (citing Ex. 1008 ¶ 143).

Patent Owner does not specifically address any of Petitioner’s citations and arguments for this ground. *See* Prelim. Resp. 17. Based on our review of the current record, and in particular, Petitioner’s arguments set forth above, portions of Pasha and Yamada cited above, and the portions of Dr. Almeroth’s testimony cited above, we determine that Petitioner has established it is more likely than not to prevail in showing that the combination of Pasha and Yamada renders the subject matter of claims 3 and 16 obvious.

I. Obviousness of Pasha and Molinet

Petitioner argues that dependent claims 7 and 17 are obvious in view of Pasha in view of Molinet. Pet. 80–83. Petitioner contends that Molinet describes “contextual deep linking,” where a server may send a link that causes an application on the client device to open or initiate if the application is already installed. Pet. 81 (citing Ex. 1005 ¶¶ 3, 25, 29, 83). Petitioner contends that the contextual deep link may further indicate “a particular configuration for an application” including “particular settings, parameters, variables, and other options for the application.” *Id.* (citing Ex. 1005 ¶ 25).

Petitioner contends that a person of ordinary skill in the art would have been motivated to combine Pasha and Molinet because both address technical problems in the same field of endeavor: providing URL links in

mobile applications, and installing applications onto mobile devices. Pet. 82 (citing Ex. 1003, 6:61–7:23, 8:59–9:14, 17:21–18:58; Ex. 1005 ¶¶ 22–23, 26–27). Petitioner further contends that a person of ordinary skill in the art would have been motivated to adapt Molinet’s “contextual deep link” into Pasha’s application download link such that opening the link would initiate the App Manager and would provide a setting for the App Manager to download the application associated with the link. *Id.* at 82–83 (Ex. 1005 ¶¶ 5, 29, 83, 120–24; Ex. 1008 ¶¶ 148–150). Petitioner also contends that a person of ordinary skill in the art would have been motivated to make such a combination so that the application download link in the form of a contextual deep link would be able to function under any context of the client device. *Id.* at 83.

Patent Owner does not specifically address any of Petitioner’s citations and arguments for this ground. *See* Prelim. Resp. 17. Based on our review of the current record, and in particular, Petitioner’s arguments set forth above, portions of Pasha and Molinet cited above, and the portions of Dr. Almeroth’s testimony cited above, we determine that Petitioner has established it is more likely than not to prevail in showing that the combination of Pasha and Molinet renders the subject matter of claims 7 and 17 obvious.

IV. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 325(D)

Institution of post-grant review is discretionary. *See Harmonic Inc. v. Avid Tech, Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (stating in context of *inter partes* review that “the PTO is permitted, but never compelled, to institute an IPR proceeding.”); 35 U.S.C. § 324(a). Pursuant to 35 U.S.C. § 325(d), in determining whether to institute a post-grant review, “the

Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” In evaluating arguments under § 325(d), we use

[a] two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017–01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph) (listing factors to consider in evaluating the applicability of § 325(d)).

A. Patent Owner’s Contentions

Patent Owner contends that we should deny the Petition under § 325(d) because Petitioner relies on substantially similar art and argument that was presented and considered during prosecution of the ’256 patent. Prelim. Resp. 25–28. Patent Owner argues that Petitioner has failed to demonstrate that the examiner materially erred in allowing the claims during prosecution. *Id.* at 27–28.

Patent Owner contends that “Pasha, Molinet, and the Petition in PGR2021-00096 were considered during prosecution,” and that Petitioner has failed to demonstrate that the examiner materially erred in allowing the claims. Prelim. Resp. 27 (citing Ex. 2005 ¶¶ 40–42). Patent Owner argues that examiner “indicated in the record that she had” considered these

materials, and even “if reasonable minds can disagree regarding their treatment, it cannot be said that the Office erred *in a manner material to* patentability.” *Id.* at 27–28 (citing *Advanced Bionics*, IPR2019-01469, Paper 6, 9).

B. Analysis

1. First Prong: Whether the art or arguments presented in the Petition are the same or substantially the same as those previously presented

As part of our analysis under the first prong of the *Advanced Bionics* framework, we look to *Becton, Dickinson* factors (a), (b), and (d) to evaluate “the similarities and material differences between the asserted art and the prior art” previously presented to the Office during a proceeding pertaining to the challenged patent (factor (a)), “the cumulative nature of the asserted art and the prior art [previously] evaluated” (factor (b)), and “the extent of the overlap between the arguments” previously presented “and the manner in which petitioner relies on the prior art” (factor (d)). *Advanced Bionics*, Paper 6 at 9–10 n.10 (citing *Becton, Dickinson*, Paper 8 at 17–18).

Because Pasha and Molinet were presented to the Office during prosecution of the ’194 application claims (*see* Ex. 1002, 14, 64¹³), we determine that these references were previously presented to the Office and the first part of the *Advanced Bionics* framework is satisfied.

2. Second Prong: Whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims

As part of our analysis under the second prong of the *Advanced Bionics* framework, we look to *Becton, Dickinson* factors (c), (e), and (f) to

¹³ Because Exhibit 1002 is not numbered, we cite to page numbers of the pdf document.

evaluate “the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection (factor (c)), “whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art” (factor (e)), and “the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments” (factor (f)). *Advanced Bionics*, Paper 6 at 9–10 n.10 (citing *Becton, Dickinson*, Paper 8 at 17–18).

Here, the examiner did not consider Pasha in initially allowing the claims of the ’194 application.¹⁴ *See* Ex. 1002, 39–40. Following the notice of allowance, the applicant submitted an information disclosure statement listing Pasha as well as other several other references along with the Petition from PGR2021-00096 and Dr. Almeroth’s declaration filed in that case. *Id.* at 14–15. In allowing the claims a second time, the examiner did mention Pasha and some of the other newly cited references. *Id.* at 4. The examiner did not however specifically address why Pasha failed to anticipate the independent claims, stating merely that “Shapira et al., Pasha et al., Sogani et al. and other cited references, taken alone or in combination, do not teach *the specific combination of*” *almost all* of the limitations of independent claims 1, 14, and 21. *Id.* at 4–5 (emphasis added). As Petitioner points out (Pet. 85), the claims of the ’951 patent challenged in PGR2021-00096 are almost identical to (and arguably narrower than) the claims allowed by the examiner. The Petition from PGR2021-00096 detailed Petitioner’s contentions as to why Pasha anticipates or renders obvious *all* of the claims

¹⁴ The applicant submitted two separate information disclosure statements listing dozens of references. *See* Ex. 1002, 81–82, 89–91. While the examiner indicated that these references had been considered, she did not issue *any* rejections during prosecution of the ’194 application. *See id.* at 39.

of the '951 patent along with a lengthy declaration from Petitioner's expert.¹⁵ When presented with these materials, the examiner's cursory statement—in essence saying that none of the cited references, including Pasha, teach the independent claims—indicates that the examiner overlooked the specific teachings of Pasha. This is further exemplified by the Board's final determination that the claims of '951 patent are unpatentable over Pasha in PGR2021-00096. It cannot be said that this is merely an instance where reasonable minds can disagree regarding the purported treatment of the art or arguments—Pasha's disclosure is compelling. While we generally defer to previous Office evaluations of the prior art, given our findings in PGR2021-00096 as well as here, we are persuaded that a failure to *meaningfully address* Pasha's disclosure in allowing the '194 application to issue as the '256 patent indicates that the Office erred in a manner material to the patentability of the challenged claims.

3. Conclusion

Specifically, we determine that the Office erred in its consideration of Pasha. As such, we do not find that the Petition, as a whole, sufficiently implicates § 325(d) such that the institution of post-grant review of the challenged claims would undermine the purpose of § 325(d). Based on the totality of evidence before us, we decline to exercise discretion under § 325(d) not to institute post-grant review.

¹⁵ The Board has since entered judgment in PGR2021-00096 determining that Pasha anticipates or renders obvious all of the claims of the '951 patent. *See* PGR2021-00096, Paper 49. And as discussed above, we determine that Petitioner has shown that it is more likely than not that Pasha anticipates or renders obvious all of the claims of the '256 patent. *See supra* §§ III.F–G.

V. CONCLUSION

After considering the evidence and arguments presented in the Petition and Preliminary Response, we determine that the information presented shows that it is more likely than not that Petitioner would prevail in establishing that at least one of the challenged claims of the '256 patent is unpatentable on the grounds asserted in the Petition. Thus, we institute a post-grant review as set forth in the Order below. Trial shall commence on the entry date of this Decision.

VI. ORDER

It is therefore,

ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review of the '256 patent is hereby instituted on the challenge to claims 1–22 under 35 U.S.C. § 101 as unpatentable as claiming patent-ineligible subject matter;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review of the '256 patent is hereby instituted on the challenge to claims 1, 2, 4–15, and 17–22 under 35 U.S.C. § 102(a) as unpatentable over Pasha;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review of the '256 patent is hereby instituted on the challenge to claims 2, 3, 5–7, 15–17, and 22 under 35 U.S.C. § 103 as unpatentable over Pasha;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review of the '256 patent is hereby instituted on the challenge to claims 3 and 16 under 35 U.S.C. § 103 as unpatentable over Pasha and Yamada;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review of the '256 patent is hereby instituted on the challenge to claims 7 and 17 under 35 U.S.C. § 103 as unpatentable over Pasha and Molinet; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

PGR2022-00053
Patent 11,157,256 B2

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