

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*.

JUDGMENT

Final Written Decision

Determining All Challenged Claims Unpatentable
Granting Petitioner's Motion on Collateral Estoppel
Granting Patent Owner's Revised Motion to Amend
Dismissing Petitioner's Motion to Exclude
35 U.S.C. §§ 326(d), 328(a); 37 C.F.R. § 42.64(c)

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. Applying the standard set forth in 35 U.S.C. § 324(a), we instituted a post-grant review of the challenged claims. Paper 10 (“Inst. Dec.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 14, “PO Resp.”), Petitioner filed a Reply to Patent Owner’s Response (Paper 19, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 34, “PO Sur-reply”). Additionally, Patent Owner filed a Contingent Motion to Amend under 37 C.F.R. § 42.221 (Paper 15), Petitioner filed an Opposition to the MTA (Paper 29), and we issued a preliminary guidance preliminarily determining Patent Owner had failed to show that the proposed substitute claims had requisite written description support under 35 U.S.C. § 112(a) and also that Petitioner has demonstrated a reasonable likelihood of establishing that proposed substitute claims are unpatentable as obvious in view of the asserted art (Paper 27).

Patent Owner then filed a Revised Contingent Motion to Amend (Paper 35, “Revised MTA” or “RMTA”). Petitioner filed an Opposition to the Revised MTA (Paper 39, “RMTA Opp.”), Patent Owner filed a Reply to Petitioner’s Opposition to the Revised MTA (Paper 48, “RMTA Reply”), and Petitioner filed a Sur-reply to Patent Owner’s Reply to the Revised MTA (Paper 52, “RMTA Sur-reply”).

An oral argument was held in this proceeding on January 26, 2024, and a transcript was entered into the record. Paper 57 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a final written decision under 35 U.S.C. § 328(a) as to the patentability of claims 1–22 of the ’256 patent. For the reasons discussed below, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–22 of the ’256 patent are unpatentable. We grant Patent Owner’s Revised Contingent Motion to Amend as to proposed substitute claims 23–37.

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.

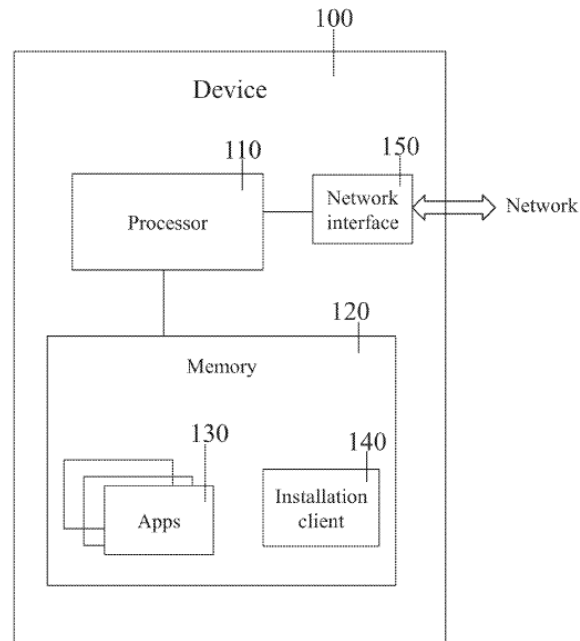


Figure 1, above, shows a block diagram of device 100 for running software applications, which includes processor 110 connected to non-transitory memory 120, which stores apps 130 and installation client 140. *Id.* at 9:22–25, 9:36–54. Device 100 may be a mobile device. *Id.* at 9:41–42.

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.

The '256 patent describes different methods for downloading the application file. *See id.* at 9:59–10:3. For example, “installation client 140 obtains address information (e.g. a link) to the installation file” by “[q]uerying an address repository (e.g. on an external server) over the network and receiving the address information in response to the query.” *Id.*

Figure 6 of the '256 patent is reproduced below.

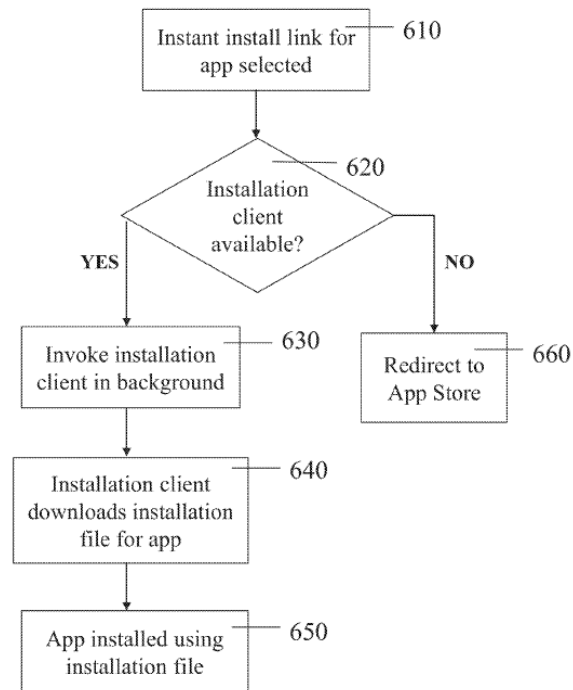


Figure 6, above, shows a flowchart illustrating a method for installing software applications on a device, beginning with selecting an install link for an app (step 610), followed by determining whether an installation client is available (step 620). *Id.* at 13:55–63. If “YES,” the installation client 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.

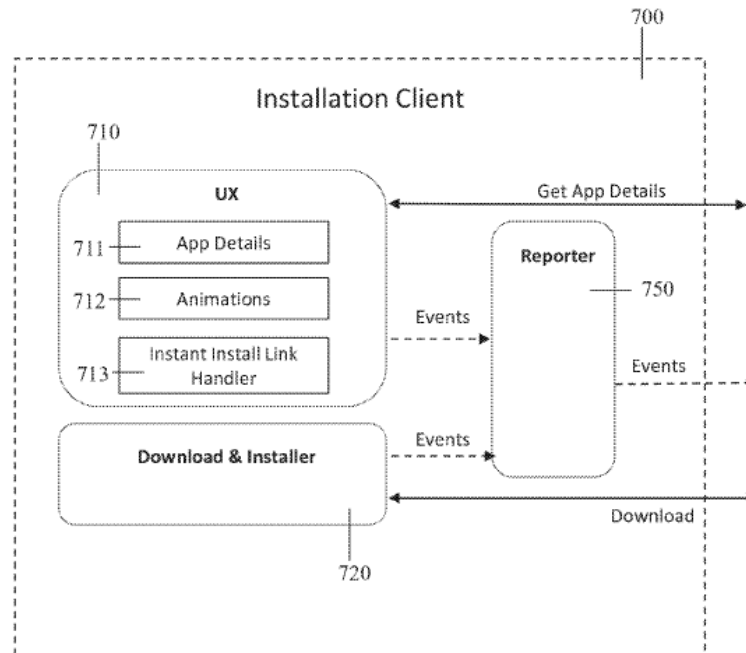


Figure 7, above, shows a schematic diagram of installation client 700, including several modules. *Id.* at 14:10–13. User Experience (UX) module UX 710 handles interaction with the user, and supports functionality such as providing app details, handling animations for display, and handling operations 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

We instituted trial based on the following grounds of unpatentability:

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

Inst. Dec. 7, 58; Pet. 4. Petitioner supports its arguments with declaration testimony of Kevin C. Almeroth, Ph.D. Ex. 1008. Patent Owner supports its arguments with declaration testimony of Zhuoqing Morely Mao, Ph.D. Exs. 2005, 2012.

III. PETITIONER’S MOTION ON COLLATERAL ESTOPPEL

With our authorization, Petitioner filed a Motion to Preclude Patent Owner’s Arguments Based on Issue Preclusion/Collateral Estoppel and Waiver. Paper 47 (“Motion”). Patent Owner filed an Opposition (Paper 49, “Opp.”), Petitioner filed a Reply (Paper 51, “Mot. Reply”), and Patent Owner filed a Sur-reply (Paper 53, “Mot. Sur-reply”).

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, filed December 28, 2016, 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”).

A. Collateral Estoppel as to Petitioner's §§ 102, 103 Challenges

1. Petitioner's Contentions

Petitioner contends that “[b]ased on the doctrines of collateral estoppel and waiver, all claims of the ’256 patent are invalid” in view of our final written decision in PGR2021-00096. Mot. 1 (citing *ironSource Ltd. v. Digital Turbine Inc.*, PGR2021-00096, Paper 49 (PTAB Jan. 4, 2023) (“the ’096 Decision”)). Petitioner points out, “[i]n the ’096 Decision, the Board construed several contested claim terms, including ‘invoke,’ ‘redirect,’ and ‘deep link,’ and found all claims of the ’951 patent invalid as being anticipated by, or obvious in view of [Pasha].” *Id.* Petitioner also notes that Patent Owner filed a notice of appeal to the Federal Circuit challenging the ’096 Decision ([PGR2021-00096], Paper 50), but subsequently filed an uncontested motion to terminate the appeal, which was granted on October 20, 2023 (PGR2021-00096, Paper 51), rendering the ’096 Decision final. *Id.* at 1–2. Petitioner further notes that the ’256 patent challenged here is a continuation of the application that issued as the ’951 patent, with an identical specification, and nearly identical claims. *Id.* at 2. Petitioner contends that “independent claims 1, 14, and 21 of the ’256 patent are *slightly broader* than corresponding claims 1, 12, and 17 of the ’951 patent,” and the dependent claims of the ’256 patent are identical to the dependent claims of the ’951 patent or have only insubstantial differences. *Id.* at 2–3, App’x. Petitioner’s table “summariz[ing] the correspondence of claims of the ’256 patent with those in the now invalid parent, the ’951 patent,” is reproduced below.

'256 Patent Claim	Corresponding '951 Patent Claim
1 – preamble broadened to “network connected device”	1 - preamble recites a “mobile device”
1 – redirecting element broadened to “for downloading” (<i>i.e.</i> , “and installing” removed)	1 – redirecting clause recites “for downloading and installing . . .”
2	11
3	2
4	3
5	4
6	5
7	6
8 (substantially similar to claim 7, but “automatic download” now reads “installation”)	7
9	7
10	8
11	9
12 (“non-mobile device”)	No exact counterpart
13	10
14 (see claim 1) same broadening	12 (see claim 1)
15	16
16	13
17	14
18 (substantially similar to claim 15, but “automatic download” now reads “installation”)	15
19	15
20 “non-mobile device”	No direct counterpart
21 (see claim 1) same broadening	17 (see claim 1)
22	18

Id. at 3–4.

Petitioner contends that the same issues of patentability were decided in the '096 Decision given the substantially identical independent claims. Petitioner identifies two differences between the independent claims of the '951 patent and the '256 patent: (1) the term “mobile device” in the '951

patent has been broadened to “network connected device” in the ’256 patent, and (2) the last limitation of the ’256 patent’s independent claims recites “downloading” instead of “downloading and installing.” *Id.* at 6–7 (citing Paper 14, 3). Petitioner contends those differences “do not materially alter the question of validity” that was previously decided, i.e., that the independent claims of the ’951 patent are anticipated by Pasha. *Id.* at 7. As such, Petitioner argues, “independent claims 1, 14, and 21 of the ’256 patent are anticipated by Pasha based on the doctrine of collateral estoppel.” *Id.*

Petitioner contends that dependent claims 2, 4–10, 13, 15, 17–19 and 22 of the ’256 patent are invalid under the doctrine of collateral estoppel because those claims correspond to dependent claims 3–11, 14–16, and 18 of the ’951 patent, which were found to be anticipated by Pasha. *Id.* at 7–8 (citing ’096 Decision 60, 62, 66). Petitioner also contends that dependent claims 2, 3, 5–7, 15–17, and 22 of the ’256 patent are invalid under the doctrine of collateral estoppel because those claims correspond to dependent claims 2, 4–6, 11, 13, 14, 16, and 18 of the ’951 patent, which were found to be obvious over Pasha. *Id.* at 7–8 (citing ’096 Decision 66).

Petitioner contends dependent claims 8, 12, 18, and 20 of the ’256 patent do not have exact counterparts in the ’951 patent, but have limitations which are inconsequential to the question of validity. *Id.* Petitioner asserts that “Patent Owner clearly agrees that these claims are not patentably distinct, as it has not separately argued in favor of patentability of any of these claims, instead relying solely on its arguments in favor of the patentability of the independent claims.” *Id.* Petitioner contends that claims 12 and 20 merely add a recitation that the “network connected device” is a “non-mobile device,” and this has no bearing on the question of invalidity over Pasha because Patent Owner has never argued this as a patentable

difference and because Pasha teaches various non-mobile devices. *Id.* at 8–9 (citing Ex. 1003, 3:25–32; Ex. 1008 ¶ 112).

Petitioner contends that claims 8 and 18 of the '256 patent make minor changes to the language of claims 7 and 15 of the '951 patent, removing a “prior to” temporal limitation from the '951 patent claims and replacing the “automatic download” limitation with “installation.” *Id.* at 10. That, Petitioner contends, “is a distinction without a patentable difference.” *Id.* According to Petitioner, “the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity.” *Id.* at 9–10 (quoting *Ohio Willow Wood Co. v. Alps S., LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013)).

2. Patent Owner's Opposition

Patent Owner responds that Petitioner's motion should be denied as moot because briefing with respect to the issued claims of the '256 patent was completed before Petitioner filed its motion. Opp. 1. As to dependent claims 8, 12, 18, and 20, Patent Owner argues that these claims differ materially in scope from those considered in PGR2021-00096 and thus collateral estoppel does not apply to these claims. *Id.* at 2. According to Patent Owner, “claims 8 and 18 are different with respect to: (1) the timing of the user prompt and (2) what action is performed—installation versus automatic download,” and the Board has not considered these aspects in the prior proceeding. *Id.* at 2–3 (citing *Ohio Willow*, 735 F.3d at 1342). Patent Owner also argues that claims 12 and 20 are different because they recite “a non-mobile device,” whereas the claims of the '951 patent specifically pertain to “a mobile device.” *Id.* at 3. Patent Owner thus contends that the validity of claims 8, 12, 18, and 20 should be determined according to the grounds in the Petition.

3. *Our Analysis*

It is well established that collateral estoppel applies to AIA proceedings before the Board. *See Google LLC v. Hammond Dev. Int'l, Inc.*, 54 F.4th 1377, 1381 (Fed. Cir. 2022) (citing *Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.*, 924 F.3d 1243, 1251 (Fed. Cir. 2019)). Collateral estoppel in AIA proceedings “is not limited ‘to patent claims that are identical. Rather, it is the identity of the *issues* that were litigated that determines whether collateral estoppel should apply.’” *Nestle USA, Inc. v. Steuben Foods, Inc.*, 884 F.3d 1350, 1352 (Fed. Cir. 2018) (quoting *Ohio Willow*, 735 F.3d at 1342).

The party seeking to invoke collateral estoppel must show: (1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) [the party against who collateral estoppel is being asserted] had a full and fair opportunity to litigate the issue in the first action.

Google, 54 F.4th at 1381 (quoting *In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994)). Collateral estoppel may also operate to bar re-litigation of common issues in actions involving different but related patents. *Mycogen Plant Science, Inc. v. Monsanto Co.*, 252 F.3d 1306, 1310 (Fed. Cir. 2001) (citing *Amgen, Inc. v. Genetics Inst., Inc.*, 98 F.3d 1328, 1329–32 (Fed. Cir. 1996); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1136 (Fed. Cir. 1985)).

We are persuaded that each of the four *Google* requirements is satisfied and, accordingly, agree with Petitioner that the challenged claims of the '256 patent are unpatentable in light of our Final Written Decision in PGR2021-00096.

Patent Owner does “not argue that collateral estoppel ‘does not attach.’” Mot. Sur-reply 1. Instead, Patent Owner’s argument is that the motion should be denied because briefing was complete when Petitioner’s motion was filed and Patent Owner no longer had an opportunity to make new or additional arguments. Opp. 1. Patent Owner, however, does not cite, nor can we find, any authority for this proposition.

On the contrary, the Federal Circuit has held that collateral estoppel “applies even though the precluding judgment . . . comes into existence while the case as to which preclusion is sought . . . *is on appeal*.” *Google*, 54 F.4th at 1381 (quoting *Soverain Software LLC v. Victoria’s Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311, 1315 (Fed. Cir. 2015)) (emphasis added). In *Google*, the preclusive judgment which petitioner relied upon became final *well after* petitioner Google filed an *inter partes* review petition and was not able to raise its collateral estoppel argument in its petition or in its subsequent papers before the Board. *Id.* Under such circumstances, the court held, petitioner does not forfeit its collateral estoppel argument by raising it for the first time on appeal. *Id.* (citing *Soverain Software*, 778 F.3d at 1315).

Here too, Petitioner could not have raised its collateral estoppel argument before the briefing on the merits of this case completed because Patent Owner had appealed our ’096 Decision to the Federal Circuit. *See* PGR2021-00096, Paper 50. That appeal was dismissed by the court, on a motion by Patent Owner, on October 20, 2023. PGR2021-00096, Paper 51. Petitioner’s collateral estoppel argument is therefore not forfeited or rendered moot by raising it for the first time after October 13, 2023—after merits briefing was complete. Paper 11, 11; Paper 45. Oral arguments in this proceeding, and more importantly, our final written decision in this

proceeding, were still pending when Petitioner filed its motion. Paper 37, 6. Under such circumstances, we are not persuaded that Petitioner's estoppel arguments can be rendered moot based simply on the briefing schedule of a case. *See Ohio Willow*, 735 F.3d at 1342 ("Collateral estoppel protects a party from having to litigate issues that have been fully and fairly tried in a previous action and adversely resolved against a party-opponent."); *see also Ohio Willow Wood Co. v. ALPSS, LLC*, No. 2:04-CV-1223, 2012 WL 2196083, at *7 (S.D. Ohio June 15, 2012) (ruling on a motion for summary judgment on the issue of collateral estoppel while motions addressed to the merits were still pending).

Turning to the four requirements laid out in *Google*, Patent Owner disputes only the first one, and only as to four dependent claims. Opp. 2–3. As evident from the Petitioner's claim comparison table, reproduced above, the claims of the '256 patent are almost identical to the claims of the '951 patent or use *slightly* different language to describe substantially the same invention. *See also* Mot. App'x. The asserted anticipation and obviousness grounds based on Pasha are *identical* to those that we resolved in the prior proceeding.

Patent Owner argues that "claims 8 and 18 are different with respect to: (1) the timing of the user prompt and (2) what action is performed—installation versus automatic download." *Id.* at 2–3. As to the first difference, claims 8 and 18 of the '256 patent are, in fact, broader than the corresponding '951 patent claims because they do not require the "prior to" temporal limitation, and thus, our prior findings would apply equally to these claims. As to the second difference, we do not view the change from "automatic download" to "installation" to be a substantial difference given that the independent claims of the '951 patent already recite such a

functionality, and our prior findings as to those aspects would apply equally here. We are therefore not persuaded that this aspect creates a new *issue of validity* for us to resolve.

Likewise, the limitation “non-mobile device” in claims 12 and 20 is not a substantial difference given that the claimed invention is directed to running software applications. The ’256 patent specification broadly defines non-mobile devices to include “network enabled devices” (Ex. 1001, 2:65–67), and we have found that Pasha’s “computer system 600” teaches such devices. *See, e.g.*, ’096 Decision 38 (citing Ex. 1003, 23:14–56). Further, Patent Owner has never argued that the mobile or non-mobile aspect of the device is important to patentability to either the ’951 or ’256 patent claims. This difference therefore does not materially alter the question of patentability. *See Soverain Software*, 778 F.3d at 1319–20 (holding that the unadjudicated claim’s additional limitation did not materially alter the question of patentability because it simply involved the “routine incorporation of Internet technology into existing processes,” which would have been obvious). Federal Circuit precedent does not limit collateral estoppel to patent claims that are identical. Rather, it is the identity of the *issues* that were litigated that determines whether collateral estoppel should apply. *See Ohio Willow*, 735 F.3d at 1342. We are not persuaded that the differences in claims 8, 12, 18, and 20 create a new issue of validity.

Since the issues of patentability of claims 1–18 of the ’951 patent and claims 1–22 of the ’256 patent are identical and the other elements of collateral estoppel are undisputed, we determine that collateral estoppel applies and, accordingly, hold claims 1–22 of the ’256 patent unpatentable. *See Google*, 54 F.4th at 1381.

B. Collateral Estoppel as to Petitioner's § 101 Challenges

Patent Owner argues that to the extent collateral estoppel applies, it also applies to Petitioner's asserted ground of invalidity under Section 101. Opp. 2. Patent Owner contends that in PGR2021-0096, we considered a ground under Section 101 for the '096 patent claims that are substantially similar to the '256 claims challenged here, and Petitioner is estopped from raising this ground. *Id.* (citing '096 Decision 32).

Petitioner responds that while the Section 101 argument in this proceeding is essentially identical to the PGR2021-00096, the determination of this issue was not "essential to a final judgement in the first action." Mot. Reply 2–3. Petitioner argues that "[t]he 'final judgement' in PGR2021-0096, is that all claims of U.S. Patent No. 10,782,951 are invalid on grounds of 35 U.S.C. §§ 102, 103," and "[h]aving found all claims invalid on other grounds, the Board's prior determination with respect to 35 U.S.C. §101 amounts to the denial of an argument that would have provided alternative support for the judgement, but was not *essential* to that judgement." *Id.* at 3.

Patent Owner responds that "we rendered 'final judgments,' as the term is used in the case law, on two separate grounds/issues—patent eligibility under § 101 and patent validity under §§ 102/103." Mot. Sur-reply 2. According to Patent Owner, "Petitioner mistakenly treats the overall outcome of the first PGR as a single 'final judgment' to which the § 101 'issue' allegedly was not 'essential.'" *Id.* Instead, Patent Owner argues, we only need to consider whether an underlying issue such as claim construction was essential to a final judgment on a particular ground/issue such as validity. *Id.* (citing *A.B. Dick Co. v. Burroughs Corp.*, 713 F.2d 700, 704 (Fed. Cir. 1983)).

We agree with Patent Owner that our prior decision as to Petitioner’s patent eligibility ground under 35 U.S.C. § 101 is a judgment in and of itself, or at the least, for the purposes of collateral estoppel, is a necessary part of the judgment in that case. As the Federal Circuit has explained, the purpose of the requirement that a finding be “necessary” to a judgment is to prevent the *incidental or collateral* determination of a nonessential issue from precluding reconsideration of that issue in later litigation. *See Mother’s Rest., Inc. v. Mama’s Pizza, Inc.*, 723 F.2d 1566, 1571 (Fed. Cir. 1983) (explaining that the requirement “does not mean that the finding must be so crucial that, without it, the judgment could not stand”) (citing Restatement (Second) of Judgments § 27 comment h (1980)); *accord In re Freeman*, 30 F.3d at 1466. What we are required to evaluate under this factor is whether the issue “was the focus of the parties’ pleadings and was fully litigated,” or one where we “reached out to make determinations as to issues which were not before [us].” *Mother’s Rest.*, 723 F.2d at 1571.

Petitioner’s Section 101 challenge was the very *first* ground of invalidity that Petitioner asserted in PGR2021-00096—it was clearly the focus of the petition there. *See* PGR2021-00096, Paper 2, at 26–52. Our findings of fact and legal conclusions spelled out in detail our determinations leading to our decision that Petitioner had not shown that the ’951 patent claims were directed to ineligible subject matter. *See* ’096 Decision 22–32. Petitioner’s Section 101 challenge was, therefore, before us, and accordingly, was decided even though we also reached a decision on Petitioner’s other challenges. *Mother’s Rest.*, 723 F.2d at 1571 n.8 (“And the mere existence of another possible ground for a judgment does not deprive the factual determination upon which the decision actually rested of preclusive effect.”) (citations omitted).

“Nor is this a case where a second proceeding involving the same issues was unforeseen.” *Id.* Petitioner filed the Petition here just a few months after we instituted review in PGR2021-00096, and, therefore, should have been aware of the possibility that we would accord preclusive effect to any findings made in the ’096 Decision. *Id.*; *see also In re Freeman*, 30 F.3d at 1467. We further agree with Patent Owner that “[t]he public policy of issue preclusion—preventing relitigating the same issue—does not favor allowing Petitioner to relitigate the already-decided issue of § 101 patent eligibility.”⁵ Mot. Sur-reply 2–3.

Petitioner also argues that it was deprived a full and fair opportunity to litigate the issue in the first action because Petitioner could not present the Section 101 issue to the Federal Circuit as a stand-alone issue for cross-appeal. Mot. Reply 3 (citing *Bailey v. Dart Container Corp. of Mich.*, 292 F.3d 1360, 1362 (Fed. Cir. 2002)). Even if Petitioner were correct, we are not persuaded that Petitioner’s inability to file a cross-appeal alone deprived Petitioner of a full and fair opportunity to litigate the issue, especially given that Petitioner had the opportunity to at least raise any potential errors to the court in its appellee’s briefs, but instead consented to the dismissal of Patent Owner’s appeal. Mot. Sur-reply 3 (“Petitioner could have, but did not, oppose withdrawal of the appeal.”) (citing *Digital Turbine, Inc. v. IronSource Ltd.*, No. 2023-1606, Dkt. No. 18, at 6 (Fed. Cir. Oct. 5, 2023)). Moreover, Petitioner offers no authority to suggest a full and fair opportunity to litigate necessarily requires review of our decision by the Federal Circuit. *See Soverain Software*, 778 F.3d at 1317 (explaining that

⁵ The broad estoppel provisions in 35 U.S.C. § 325(e) further counsel that issue preclusion should apply to the same issues of patentability of almost identical claims of a continuation patent.

the ability to appeal exception applies only when review is precluded as a matter of law, and does not apply in cases where review is available but is not sought).

Lastly, “Petitioner agrees that the Section 101 argument in this proceeding is essentially identical to the first action.” Mot. Reply 2.

Accordingly, the issues of patentability of claims 1–18 of the ’951 patent and claims 1–22 of the ’256 patent under Section 101 are identical and because the other *Google* factors weigh in favor of collateral estoppel, we hold that Petitioner is precluded from challenging claims 1–22 of the ’256 patent under section 101, and therefore, those claims have not been shown unpatentable under Section 101. *See Google*, 54 F.4th at 1381.

IV. REVISED MOTION TO AMEND

Having determined that original claims 1–22 of the ’256 patent are unpatentable (*supra* § III.A), we proceed to address Patent Owner’s Revised Motion to Amend. Patent Owner contingently moves to allow proposed substitute claims 23–37, should we determine that any of the original claims are unpatentable. Revised MTA 1, App. A. For the reasons below, we find that Patent Owner’s motion meets the statutory and regulatory requirements set forth in 35 U.S.C. § 326(d) and 37 C.F.R. § 42.221, and that Petitioner has not met its burden in proving by a preponderance of the evidence that proposed substitute claims 23–37 are unpatentable.

A. Proposed Substitute Claims

Patent Owner proposes claims 23–37 as substitute claims for some of the original claims. Revised MTA 1, App. A. Patent Owner proposes claims 23, 31, and 37 as substitute claims for original independent claims 1, 14, and 21, respectively. *Id.* at 24–31. Patent Owner proposes claims 24–30

and 32–36 as substitute claims for original dependent claims 3, 6, 7, 9–12, 16, 17, 19, and 20. *Id.*

Proposed substitute claim 23 is representative and reproduced below using underscoring to indicate text added to original independent claim 1.

23. (Substitute for claim 1) A network-connected device configured for running software applications, comprising:

a network interface configured for communicating over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:

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;

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;

responsive to a determination that the ~~when said~~ installation client is available on said device:

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;

said installation client checking whether said second software application is eligible to use capabilities of the installation client, wherein said installation client identifies said second software application as eligible responsive to said second software application having been provided with a unique eligibility token by a server as a result of said

second software application having registered with the server;

said installation client querying an address repository for a network address of an installation file for said first software application and receiving the network address in response to the query;

instruct said invoked installation client to automatically download ~~[[an]]~~ said 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

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

responsive to a determination that the ~~when said~~ installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device.

Revised MTA 24–25. Substitute claims 31 and 37 have also been amended to include the same new limitations, but are otherwise identical to the independent claim they would replace. *Id.* at 27–31. Additionally, substitute dependent claims 25 and 35 have other amendments related to the “redirect” limitation and the “download” limitation, respectively. *Id.* at 26, 29.

B. Level of Ordinary Skill in the Art

With respect to the original claims, the parties generally agree that a person of ordinary skill in the art would have formal education in computer science or a related field, and two or more years of computer programming experience. Pet. 11–12 (citing Ex. 1008 ¶ 39); PO Resp. 11 (citing Ex. 2005 ¶ 12). We adopt the parties’ definition of the level of skill in the art with

respect to Patent Owner’s motion to amend. We further note that the prior art itself demonstrates the level of skill in the art at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that specific findings regarding ordinary skill level are not required “where the prior art itself reflects an appropriate level and a need for testimony is not shown”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

C. Claim Construction

In deciding patentability of the proposed substitute claims, we use 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) (2020). 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 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”); *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019).

Although both Petitioner and Patent Owner propose constructions for the terms “address repository,” “query,” and “eligibility token,” they both also contend that we need not construe any of those terms to resolve the

patentability disputes presented. RMTA 9–14; RMTA Opp. 2–7; RMTA Reply 7–8; Tr. 19:14–18, 46:4–9. We determine that it is not necessary to explicitly construe these terms or any other term or phrase for the purposes of this Decision, and we give all claim terms their ordinary and customary meaning.

D. Statutory and Regulatory Requirements

Before considering the patentability of any substitute claims, the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 326(d) and 37 C.F.R. § 42.221. *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15, 4 (PTAB Feb. 25, 2019) (precedential). Specifically, Patent Owner must demonstrate that: (1) the amendment proposes a reasonable number of substitute claims; (2) the amendment responds to a ground of unpatentability involved in the trial; (3) the amendment does not seek to enlarge the scope of the claims of the patent or introduce new subject matter; and (4) the proposed claims are supported in the original disclosure. *See* 35 U.S.C. § 326(d); 37 C.F.R. § 42.221. We are persuaded that Patent Owner has satisfied these requirements.

1. Reasonable Number of Substitute Claims

“By statute, in a motion to amend, a patent owner may cancel challenged claims or propose a reasonable number of substitute claims for each challenged claim. There is a rebuttable presumption that a reasonable number of substitute claims per challenged claim is one (1) substitute claim.” *Lectrosonics*, Paper 15, 4 (citations omitted); 35 U.S.C. § 326(d)(1)(B); 37 C.F.R. § 42.221(a)(3).

Patent Owner proposes 15 claims to replace 22 claims. *See* Revised MTA 24–31. We find the proposed substitution reasonable, and Petitioner does not assert otherwise.

2. Respond to Ground of Unpatentability

A motion to amend may be denied where the amendment “does not respond to a ground of unpatentability involved in the trial.” 37 C.F.R. § 42.221(a)(2)(i). “[I]n considering the motion, we review the entirety of the record to determine whether a patent owner’s amendments respond to a ground of unpatentability involved in the trial.” *Lectrosonics*, Paper 15 at 5.

Patent Owner argues that the proposed substitute claims respond to the instituted grounds and that “the Board would not have instituted if the claims had recited either the checking or querying elements, since none of the cited references discloses these elements.” Revised MTA 8–9 (citing Ex. 2015 ¶¶ 21–30). Thus, by requiring these additional elements, Patent Owner’s motion is responsive to the grounds of unpatentability in the Petition. Petitioner does not assert otherwise.

3. Scope of the Claims

A motion to amend may not present substitute claims that enlarge the scope of the claims of the challenged patent. 35 U.S.C. § 326(d)(3); *see also* 37 C.F.R. § 42.221(a)(2)(ii) (“A motion to amend may be denied where . . . [t]he amendment seeks to enlarge the scope of the claims of the patent.”). A substitute claim will meet the requirements of § 42.221(a)(2)(i) and (ii) if “it narrows the scope of at least one claim of the patent, for example, the challenged claim it replaces, in a way that is responsive to a ground of unpatentability involved in the trial.” *Lectrosonics*, Paper 15, 6–7.

Patent Owner indicates, and we agree, that “no features of the original independent claims have been removed; only additional limitations have

been added.” Revised MTA 2. We find that the proposed substitute claims do not seek to expand the scope of the issued claims, and Petitioner does not assert otherwise.

4. *Support in the Original Disclosure*

A motion to amend may not present substitute claims that introduce new subject matter. 35 U.S.C. § 326(d)(3); 37 C.F.R. § 42.221(a)(2)(ii) (“A motion to amend may be denied where . . . [t]he amendment seeks . . . introduce new subject matter.”). “Normally, a claim element without support in the original disclosure (i.e., the application as originally filed) merits a rejection under 35 U.S.C. § 112 for lack of written description support.” *Lectrosonics*, Paper 15, 7. Accordingly, “a motion to amend must set forth written description support in the originally filed disclosure of the subject patent for each proposed substitute claim.” *Id.*

Petitioner contends that the proposed claims fail to comply with the written description requirement as to two of Patent Owner’s proposed amendments. Opp. 7–12. We address each of these limitations below.

a) *Eligibility Check Limitation*

Patent Owner contends that there is written description support for the new limitation of “*checking* whether said second software application is *eligible to use capabilities* of the installation client . . . responsive to said second software application having been provided with a unique eligibility token,” in the original specification of the ’194 application (Ex. 1002, 147–176).⁶ Revised MTA 4 (citing ’194 application, 21:15–22, 27:27–33:5, Figs. 11, 12).

⁶ Patent Owner cites to the original pagination of the ’194 application, which has not separately been made of record in this proceeding. We, therefore, cite to the pdf pagination of Exhibit 1002, which is the prosecution history

Petitioner contends the “process of registration, receiving a token, and enabling the token, does not implicate any action by the installation client.” RMTA Opp. 10 (citing Ex. 1035 ¶ 47). Petitioner contends that the specification “discloses that an app registers with a server and is provided with a unique app-eligibility token,” and after registration, “the app enables the token when displaying an instant install link.” *Id.* (citing Ex. 1001, 15:6–10 (’194 application, 21:17–20)). Petitioner contends that in a subsequent process, “[t]he installation client, *upon receiving an instant install link*, checks the eligibility of the caller and if identified as eligible, continues the process of downloading the app.” *Id.* (quoting Ex. 1001, 15:11–14). According to Petitioner, the original disclosure “does not describe any temporal or causal relationship between the token being provided to an app and the installation client identifying that app as being eligible to use its capabilities.” *Id.* Petitioner therefore concludes that the “‘eligibility’ is being identified *responsive to* receipt of an ‘instant install link’ by the installation client, rather than being responsive to a token being provided to the app.” *Id.* at 10–11 (citing Ex. 1035 ¶¶ 48–51); RMTA Sur-reply 2.

Patent Owner responds the specification “says ‘*the installation client . . . checks the eligibility* of the caller’ based on the app *having received* the token, i.e., ‘responsive to’ the app having been provided the token.” RMTA Reply 10–11. Patent Owner argues that the specification “provides a temporal and causal relationship in that the token has already been provided

of the ’256 patent and includes a copy of the ’194 application. In its Reply, Patent Owner cites to the ’054 application. RMTA Reply 9–10. We consider these to be citations to corresponding portions of the ’194 application.

to the app *in order for* it to later be identified as eligible by the installation client.” *Id.* at 11.

We are persuaded that Patent Owner has identified sufficient support in the original disclosure for this claim limitation. Here, the ’194 application describes that “*the installation client includes* integrated security measures that authenticate the instant install link when the installation client is invoked, in order to prevent malicious use of instant installation capabilities.” ’194 application, 21:2–4 (Ex. 1002, 167) (emphasis added). One example of a security measure integrated into the installation client is App authentication:

B) Banner served through an app (denoted App authentication) – Identifies if a particular app is eligible to display instant install links and use the installation client capabilities. *In order to be eligible* the App registers with a server and is provided upon registration with a unique app-eligibility token. The app-eligibility token *is then made available* for use with that particular app. The app needs to enable the token through the operating system whenever displaying an instant install link. The installation client, upon receiving an instant install link, checks the eligibility of the caller and if identified as eligible continues the process of downloading the app.

Id. at 21:15–22 (emphasis added). The specification therefore describes that in order to be eligible “to display instant install links and use the installation client capabilities,” an app needs to register with the server and is then provided with an app-eligibility token. It is *that process* that renders (or identifies) the app eligible to use the capabilities of the installation client. Petitioner focuses on the single action that takes place when an install link is received by the installation client, i.e., checking eligibility, but the disputed portion of the limitation is directed to how the app is identified as eligible:

checking whether said second software application is eligible to use capabilities of the installation client, wherein said installation client *identifies* said second software application as eligible *responsive to* said second software application having been provided with a unique eligibility token by a server as a result of said second software application having registered with the server,

Revised MTA 25 (emphasis added); *see also* Tr. 30:22–31:10. That is, the eligibility check may be triggered by the installation client receiving an install link but we find sufficient support for the eligibility identification to be *in response to* the app having been provided a unique eligibility token. Moreover, even if we agree with Petitioner’s reading of the claim limitation, we are persuaded that given the sequence of steps disclosed, the specification reasonably conveys to a person of ordinary skill in the art the eligibility check is responsive to the “app” having been provided with a token. *See Purdue Pharma L.P. v. Faulding, Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000) (“[T]o satisfy the written description requirement, the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue.”); *In re Glob. IP Holdings LLC*, 927 F.3d 1373, 1377 (Fed. Cir. 2019) (“[T]he test for sufficiency is whether the specification reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.”) (internal quotes omitted) (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)); *see also* Tr. 24:6–7 (Petitioner stating that it is only “a subtle shift from what the specification discloses to what the patent claims are”).

*b) Querying an address repository for a network address
Limitation*

Patent Owner contends that support for the limitation “said installation client querying an address repository for a network address of an installation file for said first software application and receiving the network address in response to the query” is sufficiently provided in the ’194 application. RMTA 5 (citing ’194 application, 3:13–16, 6:4–10, 13:23–14:5, 17:1–2, 17:7–15, 20:1–10, 20:14–15, 22:29–34, Figs. 3, 9).

Petitioner argues the disclosure regarding “query” in the ’194 application “merely states that address information is provided in response, but says nothing as to the nature or scope of the query presented.” RMTA Opp. 11 (citing Ex. 1001, 10:1–3 (’194 application, 14:4–5)). Petitioner further argues the specification does not “disclose a ‘query’ that is presented specifically *for* a network address.” *Id.* at 12. Petitioner argues that “it is not enough that the address information is obtained.” RMTA Sur-reply 2–3.

Patent Owner responds that the specification discloses that the “installation client 140 obtains address information (e.g., a link) to the installation file by” querying an address repository, and a link is a network address. RMTA Reply 10 (citing Ex. 1001, 9:62–10:30 (’194 application, 13:23–14:5); Ex. 1035 ¶ 85). According to Patent Owner, this disclosure is sufficient to support the querying limitation. *Id.*

The ’194 application discloses:

Optionally, installation client 140 *obtains address information (e.g. a link)* to the installation file by one of:

...

b) *Querying* an address repository (e.g. on an external server) over the network *and receiving the address information* in response to the query.

'194 application, 13:33–14:5 (Ex. 1002, 160–61) (emphasis added).

Dr. Almeroth testifies that a person of ordinary skill in the art would have understood that “query” is just another word for a question, and that in computing, queries are used to retrieve information. Ex. 1035 ¶ 27 (citing Ex. 1036). The specification discloses querying an address repository and receiving address information and also discloses that the address information could be a link. We find that disclosure is sufficient support for “querying an address repository *for* a network address.”

Petitioner argues “it is not enough that the address information is obtained,” but the specification discloses more than just obtaining—it discloses the actual querying aspect as well. Petitioner’s objection is that the cited disclosure does not state, for example, “querying an address repository *for the address information . . . and receiving the address information* in response to the query.” We are not persuaded that the failure to recite the “address information” phrase twice in the same sentence renders the disclosure deficient in reasonably conveying to those skilled in the art that the inventor had possession of the claimed subject matter.⁷ See, e.g., Ex. 1036, 1 (“Each time you *search for something* using a search engine, you *perform a search query*.” (emphasis added)); see also *Ariad Pharm.*, 598 F.3d at 1351 (“the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology”).

⁷ Dr. Almeroth testifies that a person of ordinary skill in the art “could use knowledge based on skill in the art to formulate a wide range of different requests or ‘queries’ to obtain the network address from network connected storage,” but also agrees that a “request *for* the network address would be within that range and even an obvious choice within that range.” Ex. 1035 ¶ 57 (emphasis added).

Upon review of the citations identified by Patent Owner as well as the parties' arguments and other evidence, we are persuaded that proposed substitute claims 23–37 are supported by the original disclosure of the '194 application.

E. Patentability Analysis of the Proposed Substitute Claims

“A petitioner bears the burden of persuasion to show, by a preponderance of the evidence, that any proposed substitute claims are unpatentable.” 37 C.F.R. § 42.221(d)(2); *see also Lectrosonics*, Paper 15 at 4 (citing *Aqua Prods. Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017); *Bosch Auto. Serv. Sols. LLC v. Iancu*, 878 F.3d 1027 (Fed. Cir. 2017)).

In determining whether a petitioner has proven unpatentability of the proposed substitute claims, the Board focuses on “arguments and theories raised by the petitioner in its petition or Opposition to the Motion to Amend.” *Nike, Inc. v. Adidas AG*, 955 F.3d 45, 51 (Fed. Cir. 2020).

Petitioner contends that the proposed substitute claims 23–37 are rendered obvious by the prior art under 35 U.S.C. § 103 and are unpatentable under 35 U.S.C. § 101. RMTA Opp. 1. Petitioner argues that the proposed independent claims are obvious in view of Pasha and O'Neil or Durbha. *Id.* at 12–20. Petitioner further contends that the proposed dependent claims are obvious over Pasha and O'Neil or Durbha, when further combined with Yamada, Molinet, or Farm.⁸ *Id.* at 21–23. We evaluate each of these challenges below.

⁸ U.S. Patent No. 9,348,572 B2, issued May 24, 2016 (Ex. 1027, “Farm”).

1. Overview of the Asserted Art

a) 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.

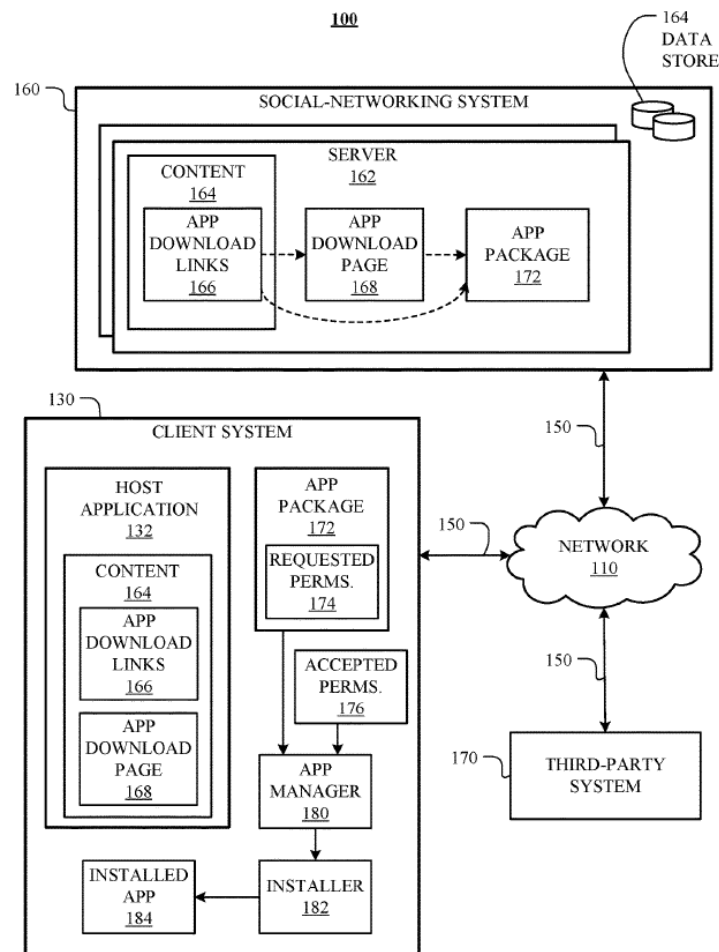


FIG. 1

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.

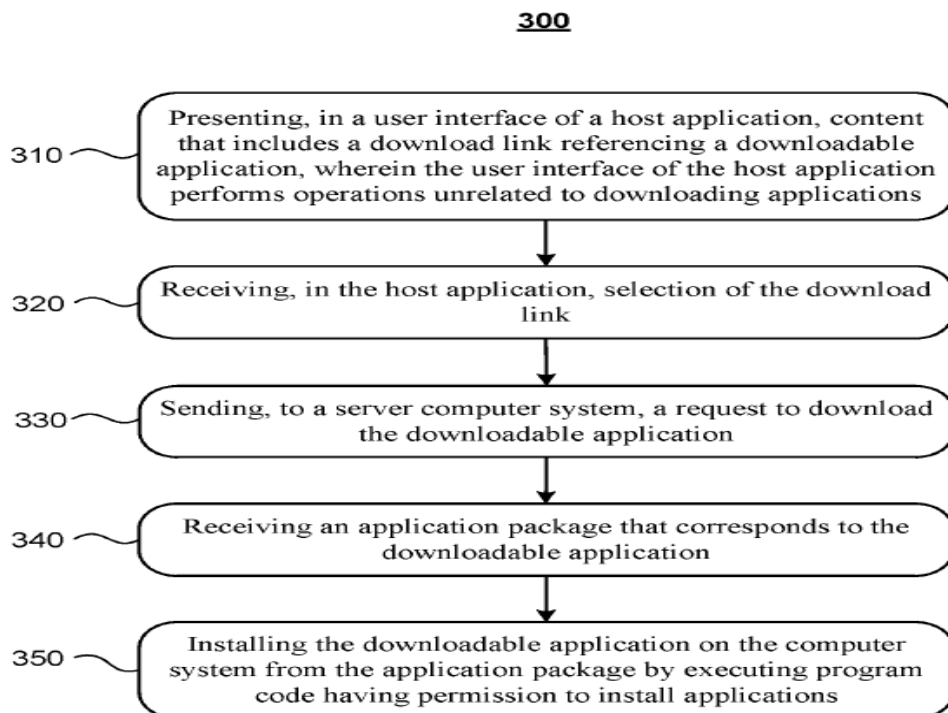


FIG. 3

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.

b) O’Neil (Ex. 1026)

O’Neil teaches techniques for in-app user data authorization. Ex. 1004, code (57), 1:36–37. Figure 1 of O’Neil is reproduced below.

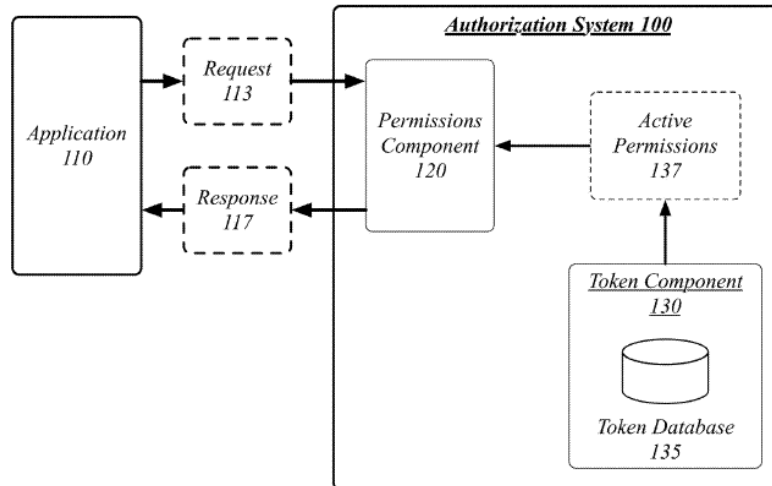


FIG. 1

Figure 1 illustrates an embodiment of an authorization system. *Id.* 1:62–63. Application 110 registers with the authorization system 100 and also with an Internet-based repository, such as a permissions repository. *Id.* at 12:36–47. The authorization system then stores active permissions 137 in form of an active token specific to the user and the application in its token database. *Id.* at 12:29–35, Fig. 8.

c) Durbha (Ex. 1040)

Durbha teaches authorizing an application to access web services or other electronic services using an app token and a user token. Ex. 1040, code (57). Figure 1 of Durbha is reproduced below.

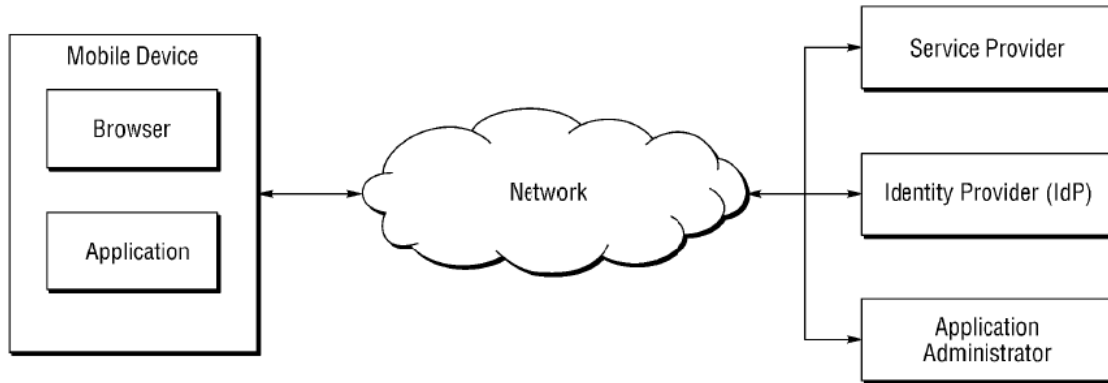


Fig. 1

Figure 1 illustrates an application authorization system configured to facilitate authorizing a mobile device to access video services or other services associated with a service provider. *Id.* at 1:34–35, 1:65–67. The authorization process may include a multi-part authorization where both the application and the user of the mobile device are authenticated. *Id.* at 2:1–3, Figs. 3, 4.

2. Obviousness over Pasha and O’Neil or Durbha

Petitioner asserts that each element of proposed substitute independent claims 23, 31, and 37 is disclosed by the combination of Pasha with O’Neil or Durbha, and a person of ordinary skill in the art would have considered it obvious to combine Pasha with either O’Neil or Durbha, thus rendering proposed claims 23, 31, and 37 obvious. RMTA Opp. 20. Petitioner supports its arguments with the testimony of Dr. Almeroth. Ex. 1035.

Petitioner contends that Pasha discloses the new limitation of “checking whether said second software application is eligible to use capabilities of the installation client.” RMTA Opp. 14. Specifically, Petitioner contends Pasha “discloses that App Manager 180 obtains a set of

requested permissions, and compares those requested permissions required for installation of an app with the actual permissions granted by the user and “[i]f the sets are the same, then the installation process may continue.” *Id.* (citing Ex. 1035 ¶ 67; Ex. 1003, 8:65–9:38). Based on this, Petitioner contends “Pasha discloses the App Manager 180 confirming it has the required permissions, which a [person of ordinary skill in the art] would understand may include *inter alia* that the ‘second software application’ (e.g., the host application invoking the app manager 180) is eligible to use its capabilities.” *Id.* (citing Ex. 1035 ¶ 68).

Patent Owner responds that Pasha discloses that “[w]hen the application package 172 has been received by the client system 130, the App Manager 180 may extract or retrieve a set of requested permissions 174 from the application package 172,’ which it then compares to user-accepted permissions 176.” RMTA Reply 2 (citing Ex. 1003, 8:67–9:33). Patent Owner argues that this discloses checking whether a set of requested permissions extracted from a downloaded app package align with user permissions, and that this check is a prerequisite for *installing* the app package, not for *determining eligibility* of the second software application. *Id.* at 2–3. Patent Owner contends that Pasha does not disclose determining whether “the host application invoking the app manager” is eligible to use capabilities of the App Manager. *Id.* at 3. According to Patent Owner, “Petitioner’s conclusory statement that a [person of ordinary skill in the art] would understand Pasha to disclose determining the eligibility of the host application to invoke the App Manager is completely unsupported.” *Id.* Patent Owner also argues “Pasha’s App Manager performs the purported eligibility check *after* it downloads the app package,” at which point, the

capabilities of the App Manager have already been used to download the app package. *Id.*

Patent Owner further argues that Petitioner's invalidity theory requires major modifications to Pasha's operation and would "change Pasha's principle of operation because Pasha as-modified would check eligibility of the host application rather than permissions of the app package." RMTA Reply 3–4. Patent Owner contends that "neither Petitioner nor Dr. Almeroth provides any reason why a [person of ordinary skill in the art] would be motivated to make these changes, explains how these changes would be accomplished, or introduces evidence of why a [person of ordinary skill in the art] would reasonably expect these changes to be successful." *Id.* at 4.

Petitioner responds that "Pasha clearly discloses that the App Manager evaluates a set of permissions before proceeding to install an application," and that "Dr. Almeroth has opined that a person of ordinary skill in art would understand from Pasha that such permissions would include that the host application, which invoked the App Manager to perform the installation, is eligible to use the capabilities of the installer." RMTA Sur-reply 5 (citing Ex. 1035 ¶¶ 67, 68). Petitioner argues "[t]his opinion is well supported and unrebutted." *Id.* As for the timing of Pasha's eligibility check, Petitioner contends that there is nothing in the claim language that dictates that this step be performed in any sequence or that the eligibility check applies to *all* capabilities of the installation client. *Id.* at 5–7.

After considering the parties' arguments and evidence, we determine that Petitioner has not shown by a preponderance of the evidence that Pasha teaches or suggests "checking whether said second software application is eligible to use capabilities of the installation client," as claimed. We agree

with Petitioner that Pasha's App Manager obtains a set of permissions and evaluates those permissions before proceeding to install an application.

RMTA Opp. 14 (citing Ex. 1003, 8:65–9:38). Pasha discloses that:

When the application package 172 has been received by the client system 130, the App Manager 180 *may extract or retrieve a set of requested permissions 174* from the application package 172, and *present a request to the user* for asking for approval to perform operations corresponding to the requested permissions, e.g., opening files, accessing contact information, accessing a camera on the client device 130, and so on.

...

In particular embodiments, when the requested permissions 174 have been requested, and a response specifying a set of accepted permissions 176 has been received from the user, the set of accepted permissions 176 may be compared to the set of requested permissions 174. If the sets are the same, then the installation process may continue, and the App Manager 180 *may invoke an installer 182 to install* the application package 172.

Ex. 1003, 8:67–9:22 (emphasis added). That is, the set of permissions to be checked are obtained by the App Manager once the download of the application package to be installed is initiated. *See id.* at 8:59–61 (“when the download is initiated by a request sent from the client system 130 to the server 162, the server 162 may send the requested object, e.g., the download page 168 or the application package 172, back to the client system 130”).

And these permissions relate to operations that the installed applications may perform, e.g., opening files, accessing contact information, accessing a camera on the client device. *Id.* at 9:6–7. These permissions may also indirectly determine whether the installation client can install that app. *See id.* at 9:33–38. There is no suggestion in Pasha, however, that these permissions have anything to do with the host application, i.e., the second software application.

The claim limitation, on the other hand, recites “checking *whether said second software application is eligible* to use capabilities of the installation client.” RMTA 25; *see also* Ex. 1001, 15:11–14 (“The installation client, upon receiving an instant install link, *checks the eligibility of the caller* and if identified as eligible continues the process of downloading the app.”). Pasha does not teach or suggest checking eligibility of its host application in any way or at any point. Moreover, as Patent Owner points out, Pasha’s App Manager performs the eligibility check *after* it downloads the app package, further supporting that Pasha’s eligibility check has nothing to do with the host application.⁹

Dr. Almeroth testifies that “Pasha discloses the App Manager 180 confirming that it has obtained the required permissions, which, in [his] opinion, a [person of ordinary skill in the art] would understand may include *inter alia* that the ‘second software application’ (e.g., the host application invoking the app manager) is eligible to use its capabilities.” Ex. 1035 ¶ 68. Dr. Almeroth fails to cite any supporting evidence or provide any technical reasoning to support his statement. *Id.* Because we find no basis in the record for Dr. Almeroth’s conclusion, we give little weight to this testimony.

⁹ During oral argument, Petitioner pointed us to disclosure in Pasha that teaches that the permission dialog may be displayed to the user at different points in the download process. Tr. 47:24–48:8 (citing Ex. 1003, 22:21–42). As Patent Owner pointed out, this disclosure was not relied up on by Petitioner in its papers and is new evidence. *Id.* at 51:19–22; Paper 46, 4. Petitioner’s argument based on this new evidence is therefore forfeited. But even if we were to consider the cited disclosure from Pasha, it still only suggests that permissions need to come from the server *after* the download process has been *initiated*, and are therefore, unrelated to the host application. *See* Ex. 1003, 22:46–49 (“the requested permissions may be downloaded prior to downloading the application or may be extracted from the application package”).

See Xerox Corp. v. Bytemark, Inc., IPR2022-00624, Paper 9, 5 (PTAB Aug. 24, 2022) (precedential) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”)(quoting 37 C.F.R. § 42.65(a)). As the Board explained in *Xerox*, such expert testimony “is particularly problematic in cases where, like here, expert testimony is offered not simply to provide a motivation to combine prior-art teachings, but rather to supply a limitation missing from the prior art.” *Id.* (citing *Arendi S.A.R.L. v. Apple, Inc.*, 832 F.3d 1355, 1361–62 (Fed. Cir. 2016)).

Petitioner does not rely on O’Neil or Durbha to teach “checking *whether said second software application is eligible* to use capabilities of the installation client.” *See* RMTA Opp. 14–17. Accordingly, Petitioner has not established by a preponderance of the evidence that the combination of Pasha in view of O’Neil or Durbha would have rendered the subject matter of proposed substitute claims 23, 31, and 37 obvious to one of ordinary skill in the art at the time of the invention.

Because Petitioner has not established by a preponderance of the evidence that the proposed independent claims would have been unpatentable as obvious over Pasha in view of O’Neil or Durbha, Petitioner has also not established by a preponderance of the evidence that the proposed dependent claims would have been unpatentable as obvious in view of other combinations Pasha, O’Neil and Durbha, including additional prior art references such as Farm, Yamada, and Molinet, which are not used to cure the deficiencies of Pasha discussed above. RMTA Opp. 20–23.

3. *Subject Matter Eligibility under 35 U.S.C. § 101*

Petitioner argues that the substitute claims are ineligible under section 101 for the same reasons as the original claims:

Like the original claims, the proposed substitute claims are ineligible under section 101. The additional limitations in the proposed claims do not alter the character of the independent claims, leaving them directed to an abstract concept of improving a user experience by downloading and installing software as a background task. Substitute claims 23, 31, and 37 still merely describe this abstract idea in terms of generic computer components and well-known functions. Thus, the subject matter added by the MTA does not alter the eligibility analysis, and the substitute claims remain unpatentable under section 101.

RMTA Opp. 23 (citing Ex. 1035 ¶¶ 107–112).

As discussed above (*supra* section III.B), we determine that Petitioner is precluded from challenging claims 1–22 of the '256 patent under Section 101 and that those claims have not been shown as directed to ineligible subject matter under Section 101. Petitioner's arguments as to the proposed substitute claims fare no better. If anything, the proposed amendments to the original claims recite specific technical details of the claimed invention, adding additional elements that further integrate any alleged judicial exception into a practical application and support a finding of eligibility under Step 2A of the Guidance. *See, e.g.*, RMTA 25 (adding the use of a token to perform an eligibility check and the use of an address repository). Accordingly, we are not persuaded that Petitioner establishes by a preponderance of the evidence that the proposed substitute claims are directed to ineligible subject matter under Section 101.

Even if we were to agree with Petitioner that collateral estoppel does not apply to Petitioner’s Section 101 challenge (*supra* section III.B), we are not persuaded that Petitioner has not shown by a preponderance of the evidence that the proposed substitute claims are directed to ineligible subject matter. Although Petitioner does not present separate argument as to the substitute claims (*see* RMTA Opp. 23), we consider Petitioner’s arguments presented as to the original claims as also directed to the substitute claims. Pet. 25–48. In our Institution Decision, we preliminarily determined that Petitioner had failed to establish sufficiently that the original claims are directed to patent ineligible subject matter. Inst. Dec. 18–26; *see also* ’096 Decision 32 (determining that Petitioner had failed to establish that claims 1–18 of the related ’951 patent were directed to patent ineligible subject matter). For the same reasons (as discussed in our Institution Decision, the ’096 Decision, and discussed below), we determine that proposed substitute claims are not directed to patent ineligible subject matter.

a) 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 Section 101.¹⁰ Patent Examining Procedure (“MPEP”) now incorporates this revised guidance and subsequent updates at § 2106 (9th ed. Rev. 10.2019, rev. June 2020).¹¹

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”).¹²

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

¹⁰ 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 Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”). “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” 84 Fed. Reg. at 51; *see also* October 2019 Update at 1.

¹¹ All references to the MPEP are to the Ninth Edition, Revision 10.2019 (Last Revised June 2020), unless otherwise indicated.

¹² “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).

(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 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.*, 986 F.3d 1367, 1375 n.1 (Fed. Cir. 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.

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.

b) Petitioner’s Contentions

Petitioner contends that the claims recite the abstract idea of “improving a user experience by downloading and installing software as a

background task.”¹³ Pet. 25. Petitioner further contends that “the focus of 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 (citing *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018)). 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 (citing Ex. 1008 ¶ 152). 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,

¹³ Although the Petition 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 the proposed independent claims 23, 31, and 37, which include the limitations of original claims 1, 14, and 21. Because we conclude that these proposed independent claims are not directed to patent-ineligible subject matter, we do not separately address patent eligibility of proposed dependent claims 24–30, 32–36 under Section 101.

2:10–12). Petitioner contends this solution is nothing more than an example of multitasking applied to improve a user experience, and is not sufficient to render the claims directed to an improvement in computer functionality. *Id.* at 29 (citing *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020)).

In its Reply, Petitioner contends even Dr. Mao agrees that in the prior art “installation of an updated Windows OS software is generic and easily accomplished as a background task.” Pet. Reply 16 (citing Ex. 2012 ¶ 30; Ex. 1030, 257:10–20). Petitioner argues that “[a]lthough the claims recite a series of steps, these are merely routine steps to perform this abstract concept using software, and not a novel technical solution that transforms the claims to patent eligible subject matter.” *Id.* at 17–18 (citing Ex. 1030, 240:10–16, 257:16–20, 243:19–244:22).

c) Patent Owner’s Contentions

Patent Owner responds that Petitioner’s proposed abstract idea overgeneralizes the claims. PO. Resp. 21. 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 23–24 (citing *Enfish*, 822 F.3d at 1337). Patent Owner contends that “[w]hile ‘improved usability’ that allows users minimal interaction in the installation process is listed as *one of six benefits* of the claimed invention, those benefits are *a result* of the claimed invention, not what it is *directed to*.” *Id.* at 25 (citing Ex. 1001, 2:22–62). Patent Owner argues that, instead, “the claims are directed, *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 25–26. 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 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 26–27 (citing Ex. 1001, 1:31–38). Patent Owner argues that this problem could not exist in a pre-computer world. *Id.* at 27. 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 28 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014); Ex. 1001, 1:22–38). Patent Owner contends that “[t]he ’256 claims do the same – albeit by a different technique – by downloading and installing an application in the background instead of directing the user to an app store.” *Id.* Patent Owner further argues that the 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 29 (citing Ex. 1001, 1:39–48, 2:54–61).

In its motion to amend, Patent Owner argues that the proposed substitute claims add greater technical detail and further bolster the patent eligibility. RMTA 14–15. Patent Owner contends “[t]he proposed amendments add checking whether the second software application is eligible to use capabilities of the installation client based on a unique eligibility token and querying an address repository for a network address of an installation file, both of which are also specific to internet activity.” *Id.*

at 15. According to Patent Owner, “the proposed amendments bolster the claims being directed to a technical solution to a problem particular to the internet.” *Id.*

Patent Owner also argues that the ’256 claims recite an inventive concept and meet the patent-eligibility requirements under *Alice* Step 2. PO Resp. 29 (citing Ex. 2012 ¶¶ 22–23). According to Patent Owner, “the ’256 *claims change the conventional sequence of events* that occurs when a link is clicked, thereby manipulating the user’s conventional interactions with the Internet.” *Id.* at 31. “In particular, upon receiving selection of a link, instead of redirecting the user to the app store, the user’s experience of interacting with the second application is maintained,” and “[a]n installation client is invoked to download and install the application in the background without interrupting the user interaction with the foreground app.” *Id.* This, Patent Owner contends, “is exactly the type of non-conventional ordering of elements that was found patent-eligible in *BASCOM*. *Id.* (citing *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1359 (Fed. Cir. 2016)). In its motion to amend, Patent Owner contends that the substitute claims recite an inventive concept because they manipulate the conventional interaction with the internet by reciting use of a unique eligibility token for checking whether the second software application is eligible to use capabilities of the installation client. RMTA 16 (citing *BASCOM*, 827 F.3d at 1359).

d) Analysis

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 proposed independent claims. 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; Revised MTA 24–25. 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 proposed claims are somewhat similar to those that the Federal Circuit held patent eligible 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 proposed 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, 1:22–32. 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; *see also* '194 application, 1–3 (Ex. 1002, 147–49). 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.

Petitioner agrees that, similar to the invention in *DDR Holdings*, the claims here address a “challenge of retaining control over the attention of the customer in the context of the internet,” but attempts to distinguish *DDR Holdings* as claims that detailed a *specific* process of constructing and serving a hybrid webpage. Pet. 29–30. As discussed above, Petitioner's argument ignores the *specificity* provided in these claims as well, including, among other things (1) identifying selection of installation link that is embedded in content, (2) determining if an installation client is available, (3)

invoking the installation client in the background, (4) performing an eligibility check, (5) obtaining a network address, and then (6) automatically downloading and installing the software while maintaining user interaction.¹⁴ *See supra* 17–19. In short, the claimed solution amounts to an inventive concept for resolving this particular Internet-centric problem, rendering the claims patent-eligible.¹⁵ *DDR Holdings*, 773 F.3d at 1259; *see also Bascom*, 827 F.3d at 1351 (explaining that the invention in *DDR*’s patent claimed a technical way to satisfy an existing problem for website hosts and viewers).

Petitioner repeatedly argues that the claims recite merely routine and conventional steps. Pet. Reply 16–17; RMTA Opp. 23. We do not agree that each of the recited steps here is routine and conventional. *See, e.g., Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (“The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.”). For example, as discussed above, the eligibility check limitation is not taught in any of the art of record. But even if Petitioner is correct, we are persuaded that when the limitations of the proposed claims are taken *together*, they recite an invention that is not merely the routine or conventional use of the Internet. *DDR Holdings*, 773 F.3d at 1259. As Patent Owner argues, the “*claims change the conventional sequence of events* that occurs when a link is

¹⁴ In our view, the proposed claims provide a lot more detail than those that the court found patent eligible in *DDR Holdings*. 773 F.3d at 1249–50.

¹⁵ Petitioner’s reliance on *PersonalWeb Techs. LLC v. Google LLC* is also 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.

clicked, thereby manipulating the user's conventional interactions with the Internet.” PO Resp. 22, 31; RMTA 15–16. The '256 patent points out that the conventional method of installing an app on client devices was through an app store. Ex. 1001, 1:22–30; '194 application, 1 (Ex. 1002, 147); *see also* Ex. 1008 ¶ 50 (noting the development of app stores on client devices as a system where users can easily install new applications) (citing Ex. 1005 ¶ 5). Conventionally, when an app store was available on a device, installation of new apps was done *solely* by redirecting the user to the app store. *See* Ex. 1001, 1:31–34 (noting that when a user is interested in install a new app, the user is redirected to the app store); *see also* Ex. 1005 ¶ 22 (noting that an app store “provides a centralized location for client devices to submit requests for applications to be installed on the client device”). The claimed invention instead invokes an installation client to install the app in the background without interrupting the user interaction with the foreground app from which the installation was requested. Thus, even if some elements of the proposed claims are conventional pieces, we are persuaded that when taken as a whole, the proposed claims recite a non-conventional arrangement of those elements. *See Bascom*, 827 F.3d at 1350 (“an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces”); *see also SRI Int'l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1304 (Fed. Cir. 2019) (“Here, the claims actually prevent the normal, expected operation of a conventional computer network.”); *Rapid Litig. Mgt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1051 (Fed. Cir. 2016) (“Repeating a step that the art taught should be performed only once can hardly be considered routine or conventional.”).

Accordingly, we are not persuaded that Petitioner establishes by a preponderance of the evidence that the proposed substitute claims are directed to ineligible subject matter under section 101.

4. Conclusion as to Patentability of the Substitute Claims

We are not persuaded that Petitioner has shown, by a preponderance of the evidence, that any of the proposed substitute claims are directed to patent ineligible subject matter under 35 U.S.C. § 101 or that the subject matter of proposed substitute claims 23–37 would have been obvious. RMTA Opp. 2–25.

V. PETITIONER’S MOTION TO EXCLUDE

Petitioner filed a motion asking to exclude all of Exhibit 2010 (an online article titled “Redirections in HTTP”) and Exhibit 2012 (“Declaration of Dr. Z. Morley Mao in support of Patent Owner’s Response”). Paper 50, 1. As to Dr. Mao’s declaration, Petitioner contends that certain paragraphs 4–21, 35–55, 57–65, and 71–74 of Exhibit 2012 are inconsistent with the ’096 Decision and should be excluded while other paragraphs are rendered moot and should be excluded as irrelevant. *Id.*

As to Exhibit 2010, Petitioner contends it is inconsistent with the ’096 Decision and appears to have been modified in 2023, long after the priority date of the ’256 patent, and should be excluded under Fed. R. Evid. §§ 401, 403, and 901.” *Id.* at 2. Patent Owner does not oppose the Motion.

Petitioner, as the moving party, “has the burden of proof to establish that it is entitled to the requested relief.” 37 C.F.R. § 42.20. Under the particular circumstances in this case, we need not assess the merits of Petitioner’s motion. Patent Owner relies on Exhibit 2010 and the objected portions of Exhibit 2012 in its arguments as to patentability of the original

claims 1–22 of the ’256 patent in response to Petitioner’s challenges based on anticipation and obviousness. As discussed above, we have determined that collateral estoppel applies to render those claims unpatentable.

Accordingly, Petitioner’s Motion to Exclude is *dismissed* as moot.

VI. CONCLUSION

As discussed above, claims 1–22 of the ’256 patent are unpatentable based on collateral estoppel in light of the ’096 Decision. The outcome for the challenged claims of the ’256 patent is set forth in the table below. In summary:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–22	101	Eligibility ¹⁶		1–22
1, 2, 4–15, 17–22	102(a)	Pasha	1, 2, 4–15, 17–22	
2, 3, 5–7, 17–17, 22	103	Pasha	2, 3, 5–7, 15– 17, 22	
3, 16	103	Pasha, Yamada		
7, 17	103	Pasha, Molinet		
Overall Outcome			1–22	

¹⁶ As explained above, given our determination that collateral estoppel applies as to the previously decided grounds, we do not reach Petitioner’s alternative obviousness grounds based on the combinations of Pasha with Yamada or Molinet.

The table below summarizes our conclusions as to Patent Owner's Revised Motion to Amend the claims.

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	
Substitute Claims Proposed in the Amendment	23–37
Substitute Claims: Motion to Amend Granted	23–37
Substitute Claims: Motion to Amend Denied	
Substitute Claims: Not Reached	

VII. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner's Motion to Preclude Patent Owner's Arguments Based on Issue Preclusion/Collateral Estoppel and Waiver (Paper 47) is *granted*;

FURTHER ORDERED that claims 1–22 of the '256 patent are unpatentable based on collateral estoppel in light of the Final Written Decision in PGR2021-00096;

FURTHER ORDERED that Patent Owner's Revised Motion to Amend (Paper 35) is *granted*;

FURTHER ORDERED that Petitioner's Motion to Exclude Evidence (Paper 50) is *dismissed*; and

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

PGR2022-00053
Patent 11,157,256 B2

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