

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

ADVANCED CODING TECHNOLOGIES LLC,
Patent Owner.

IPR2025-01103
Patent 8,230,101 B2

Before THU A. DANG, RUSSELL E. CASS, and BRIAN P. MURPHY,
Administrative Patent Judges.

MURPHY, *Administrative Patent Judge.*

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

I. INTRODUCTION

A. Background and Summary

Apple Inc. (“Petitioner”) filed a Petition pursuant to 35 U.S.C. § 311 requesting institution of *inter partes* review of claims 1–12 of U.S. Patent No. 8,230,101 B2 (Ex. 1001, “the ’101 patent”). Paper 2 (“Pet.”).

Advanced Coding Technologies LLC (“Patent Owner”) timely filed a Patent Owner Preliminary Response. Paper 9 (“Prelim. Resp.”). Patent Owner also filed a Request for Discretionary Denial of Institution (Paper 6), and the Deputy Director of the Office denied Patent Owner’s request for discretionary denial and referred the Petition to the Board for a decision on institution. Paper 11.

On November 10, 2025, pursuant to our authorization, Petitioner filed a Motion to Withdraw all Challenges to Claims 1–6 of the ’101 patent. Paper 12 (“Motion”). Petitioner’s Motion requested withdrawal of the Petition’s challenges to claims 1–6 of the ’101 patent, in view of a district court Order in a related district court proceeding determining a claim limitation in independent claim 1 of the ’101 patent to be indefinite pursuant to 35 U.S.C. § 112 ¶ 6. *Id.* at 7–9 (citing Ex. 1108, 38–42). Patent Owner does not oppose the motion. Ex. 1109, 2. We granted the motion on November 25, 2025. Paper 13. Hence, this proceeding is directed only to the Petition’s challenges to claims 7–12 of the ’101 patent.

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” Under § 314, the Board may not institute review on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). If the Board institutes a review, it

will institute “on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a). Upon consideration of the Petition, the Preliminary Response, and the evidence of record, for the reasons set forth below, we conclude the Petition demonstrates a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one challenged claim in the ’101 patent. Accordingly, we institute an *inter partes* review of claims 7–12 of the ’101 patent.

B. Real Parties in Interest and Related Matters

Petitioner identifies Apple Inc. as the real party in interest. Pet. 94. Patent Owner, Advanced Coding Technologies LLC, identifies itself as the real party in interest. Paper 4, 2.

Petitioner and Patent Owner identify the following related matters:

- *Advanced Coding Technologies LLC v. Google LLC*, Case No. 2:24-cv-00353-JRG (E.D. Tex.); and
- *Advanced Coding Technologies LLC v. Apple Inc.*, Case No. 2:24-cv00687-JRG (Consolidated Case) (E.D. Tex.)

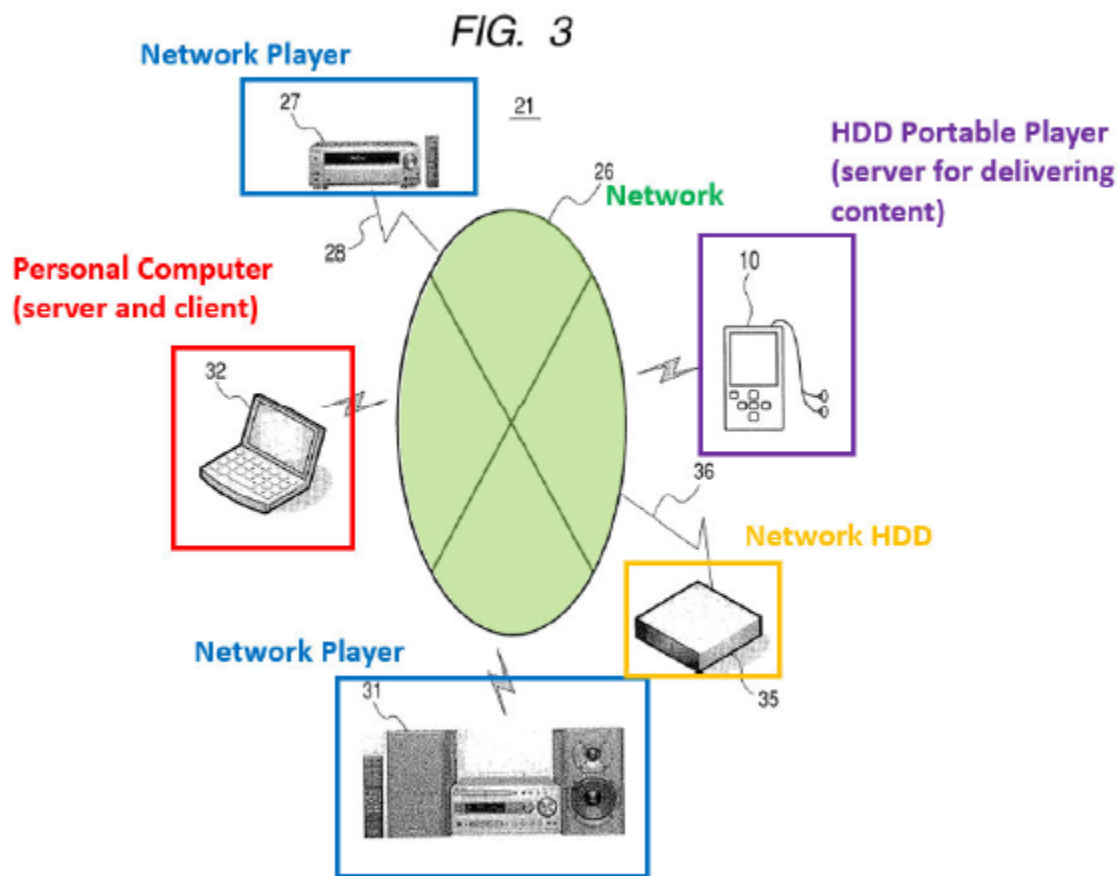
Pet. 96; Paper 4, 2.

C. The ’101 Patent

The ’101 patent, titled “Server Device for Media, Method for Controlling Server for Media, and Program,” issued July 24, 2012 from a PCT application filed in Japan on March 2, 2007. Ex. 1001, codes (45), (54), (22), (86). The ’101 patent “relates to a server device for media such as a HDD [Hard Disk Device] portable player, a method for controlling a server for media . . . more particularly to a server device for media capable of smoothly dealing with the large amount of digital contents . . .” *Id.* at

1:7–12. The '101 patent explains that it is “convenient to use an HDD portable player as a server device for media” such as music, videos, and photographs, but one problem is the capacity limit for storing digital media files on an HDD portable player. *Id.* at 1:47–2:5. The '101 patent offers a solution that “maintain[s] the convenience of playback in a network player, while properly dealing with the large total size of held digital contents” on an HDD portable player. *Id.* at 2:6–10.

Figure 3 of the '101 patent, reproduced below from the Petition in annotated form, is a diagram “of a network to which the HDD portable player is connected”:



Pet. 2 (citing Ex. 1001, Fig. 3 (annotated)). In Figure 3, HDD Portable

Player 10 (purple), Network Players 27, 31 (blue), and Network HDD 35 (yellow) are all connected to Network 26 (green). Ex. 1001, 4:13–22.¹ The HDD Portable Player serves digital content to the Network Players connected through the network. *Id.* at 4:23–25. The HDD Portable Player can also transfer media files to the Network HDD for storage, which adds storage capacity beyond that of the HDD Portable Player alone. *Id.* at 5:32–46. The Network HDD also serves stored digital content to the client Network Players. *Id.* at 4:25–26.

An exemplary method for controlling the HDD Portable Player as a media server to the Network Players is as follows:

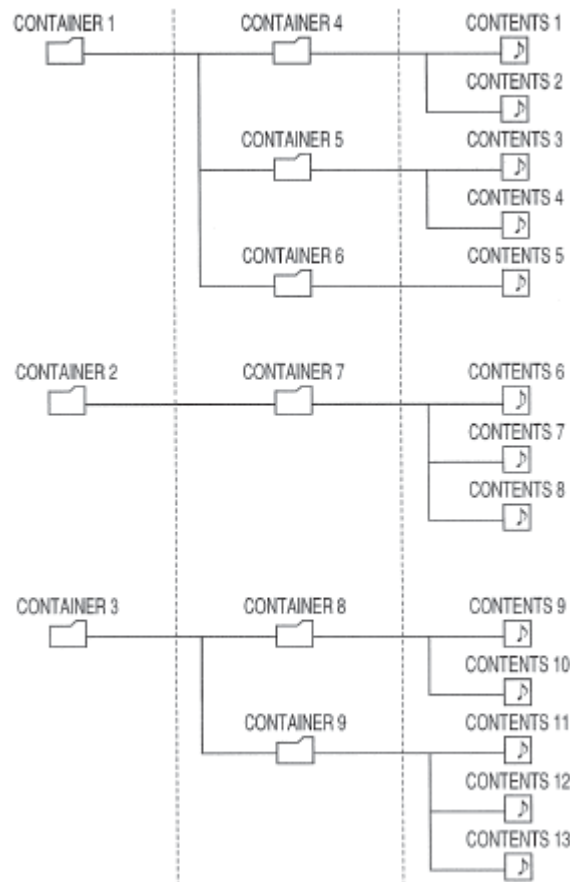
A user operates the network player 27 to request the HDD portable player 10 to transmit list information about the held music pieces of the HDD portable player 10. In response to the request, the *HDD portable player 10 transmits the list information to the network player 27* through the network 26. The user of the network player 27 specifies a music piece desired to be played by referring to *the list of music pieces displayed on a display unit of the network player 27 according to the list information received from the HDD Portable player 10*. . . . [N]etwork player 27 requests [] HDD portable player 10 to transmit the data of the specified music piece. In response to the request, the HDD portable player transmits the corresponding data to the network player by [] stream-delivery.

Id. at 4:52–66 (emphasis added). The '101 patent describes a “CDS (content directory service)” that regulates “the metadata in the list information format” such that “HDD portable player 10 can use the metadata to display a list of the contents held by the HDD player on the network player.” *Id.* at 5:5–9. The CDS list information the HDD portable player presents to the

¹ Quotations from patent documents may omit or de-emphasize bold numerals.

network player “is the list information relating to the tree structure shown in FIG. 4, i.e., the entire tree structure” that includes digital content transferred from the HDD Portable Player to the Network HDD for storage. *Id.* at 5:55–67.

An exemplary tree structure in Figure 4 is reproduced below:



Id. Fig. 4. In the tree structure of Figure 4, for example, the digital content stored in Container 2 and its descendant Container 7 (music files in Contents 6–8) of the HDD Portable Player has been transferred to the Network HDD for storage, but that network storage content is still included in the list information tree structure provided to the Network Player by the HDD Portable Player. *Id.* at 5:53–60. Thus, “the tree structure shown in Fig. 4 is

maintained as it is to be used for the list information.” *Id.* at 5:60–65.

D. Illustrative Claim

Petitioner challenges claims 7–12 of the ’101 patent. Pet. 39–40, 46–48, 53, 82, 87–89, 92–93. Claims 7 and 12 are independent method claims. Claims 8–11 are device claims that depend directly from claim 6.² Claim 7 is reproduced below with bracketed identifiers to illustrate the claimed subject matter:

[7pre] A method for controlling a server device for media which is equipped with an internal storage device for storing digital contents, the method comprising the steps of:

[7a] responding to a data transmission request from a network player by stream-delivering corresponding data in corresponding digital contents from the internal storage device to the network player during connection to a network;

[7b] transferring and storing part of held digital contents in the internal storage device to a network storage device, wherein the network storage device is connected to the network and is capable of storing data, and wherein the digital contents that cannot be recovered if a network failure occurs during the transferring of the digital contents are not transferred from the internal storage device to the network storage device;

[7c-i] responding to a list presentation request for the held digital contents of the server device for media from the network player by transmitting list information to the network player, **[7c-ii]** wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device, and **[7c-iii]** wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device;

² Petitioner has not withdrawn its challenge to claims 8–11.

[7d] responding to a data transmission request for the held digital contents from the network player by searching for a location where the held digital contents are currently stored; and

[7e] allowing the corresponding data in held digital contents to be stream-delivered from the network storage device to the network player, if the result of search shows the network storage device,

[7f] wherein the service device for media is a media player.

Ex. 1001, 12:57–13:26.

E. Prior Art and Asserted Grounds

Petitioner asserts claims 7–12 are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
7–12	103(a) ³	Lamkin ⁴
7–12	103(a)	Lamkin-Fiechter ⁵
7–11	103(a)	Lamkin-Ito ⁶
7–12	103(a)	Franke ⁷
7–12	103(a)	Franke-Fiechter
7–11	103(a)	Franke-Ito

Pet. 5–6. Petitioner relies on the Declaration of Erez Zadok, Ph.D.

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), includes revisions to 35 U.S.C. §§ 102 and 103 that became effective after the filing date of the earliest priority application that led to the challenged patent. Hence, this *inter partes* review is governed by the pre-AIA provisions of 35 U.S.C. §§ 102 and 103.

⁴ U.S. Patent Pub. No. 2006/0161635 A1 to Lamkin Published July 20, 2006 (“Lamkin”) (Ex. 1004).

⁵ U.S. Patent No. 7,219,123 B1 to Fiechter filed Nov. 21, 2000, issued May 15, 2007 (“Fiechter”) (Ex. 1006).

⁶ International Patent Pub. No. WO2006/073040 to Ito Published July 13, 2006, with certified English translation (“Ito”) (Ex. 1012).

⁷ U.S. Patent Pub. No. 2003/0195924 A1 to Franke Published Oct. 16, 2003 (“Franke”) (Ex. 1005).

(Ex. 1003) in support of the Petition. *Id.* (citing Ex. 1003 ¶¶ 1–573). The Petition challenges claims 7–12 of the ’101 patent by cross-referencing its analyses of now-withdrawn claims 1–6 to map the prior art onto claims 7–12. Pet. 39–40 (citing Ex. 1003 ¶¶ 214–357 regarding Lamkin), 46–48 (citing Ex. 1003 ¶¶ 215–254, 268–313, 358–359, 364–371 regarding Lamkin-Fiechter), 53 (citing Ex. 1003 ¶¶ 215–254, 268–313, 383–384, 388–391 regarding Lamkin-Ito), 82 (citing Ex. 1003 ¶¶ 402–491, 493–530 regarding Franke), 87–89 (citing Ex. 1003 ¶¶ 403–436, 447–491, 502–530, 535–543 regarding Franke-Fiechter), 92–93 (citing Ex. 1003 ¶¶ 403–436, 447–491, 502–530, 560–565 regarding Franke-Ito).

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner contends:

The range of qualifications for a POSITA would have included a bachelor’s degree in computer engineering or a comparable field and about 2-3 years of professional experience working with networking and data storage architectures. Additional years of experience could substitute for an advanced-level degree (and vice versa).

Pet. 5 (citing Ex. 1003 ¶¶ 44–46). Patent Owner “utilizes Petitioner’s proposed level of skill in the art” for purposes of the Preliminary Response. Prelim. Resp. 21.

In determining the skill level of a person of ordinary skill in the art (“POSITA”), various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-*

Allan Indus., Inc., 807 F.2d 955, 962 (Fed. Cir. 1986)). “These factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.” *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). There is uncontested evidence in the record before us that reflects the knowledge and experience of a POSITA.

For purposes of this Decision, we adopt the Petition’s formulation of the level of ordinary skill in the art, which is consistent with the description in the ’101 patent, the prior art of record, and the testimony of Dr. Zadok.

B. Claim Construction

In this *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). When construing a disputed claim limitation, “we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner contends that no claim terms need construction, but also contends that “claim interpretations on which this Petition depends are incorporated in and apparent from the prior art mapping analysis below.” Pet. 5. Patent Owner contends that Petitioner’s position contradicts the position Petitioner took in related district court litigation, particularly Petitioner’s district court constructions of means-plus-function limitations

recited in claims 1–5 of the ’101 patent. Prelim. Resp. 6–20 (citing Ex. 2004, 5–14). Patent Owner explains that Petitioner failed to construe the same means-plus-function claim limitations in this *inter partes* review proceeding, as required by our regulations. *Id.* at 20–21 (citing 37 C.F.R. § 42.104(b)(3)).

The district court order filed by Petitioner in this proceeding, pursuant to our instruction, confirms Patent Owner’s contention that Petitioner offered means-plus-function constructions for limitations recited in claims 1–5 of the ’101 patent to the district court but not in this proceeding. Ex. 1108, 33–57. However, having granted Petitioner’s unopposed motion to withdraw all challenges to claims 1–6 from this *inter partes* review proceeding, Patent Owner’s contention that Petitioner did not comply with our regulations regarding the claim construction of claims 1–6 is moot. We further note there appears to be no dispute that claims 7–12 “do not include the relevant claim term or any other term that has been identified as subject to 35 U.S.C. § 112, ¶ 6 or potentially subject to 35 U.S.C. § 112, ¶ 6.” Paper 12, 7. We invite the parties to address in their briefs whether any further claim construction is needed for the Board to render a final decision regarding patentability of claims 7–12 in the ’101 patent. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

We now address the arguments and evidence in the Petition and Preliminary Response directed to the Lamkin reference in Grounds 1A-1C.

C. Asserted Obviousness of Claims 7–12

“In an inter partes review, the burden of persuasion is on the petitioner to prove ‘unpatentability by a preponderance of the evidence,’ 35 U.S.C. § 316(e), and that burden never shifts to the patentee.” *In re Magnum Oil Tools Int’l Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016) (quoting *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015)); see also *Aqua Products, Inc. v. Matal*, 872 F.3d 1290, 1306 (Fed. Cir. 2017 (en banc (quoting *Magnum Oil*)).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). Obviousness is resolved based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). A party who petitions the Board for a determination of obviousness must show that “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)).

1. *The Parties' Contentions*

Ground 1A in the Petition contends that claims 7–12 of the '101 patent are obvious over Lamkin. Pet. 6–40 (citing Ex. 1003 ¶¶ 197–201, 214–313). The Petition asserts that Lamkin discloses, teaches, suggests or otherwise renders obvious all of the limitations recited in the challenged claims. *Id.* The Petition addresses the asserted obviousness of claims 7–12 by cross-referencing the detailed analyses provided for claims 1–6. *Id.* at 39–40.

Patent Owner contends the Petition fails to establish that Lamkin discloses, teaches, or suggests two claim limitations:

Limitation [1c-ii]/[7c]/[12c]: “*wherein the list information lists the digital contents left in the internal storage device and the digital contents transferred from the internal storage device to the network storage device and stored in the network storage device*” (hereafter the “*list information*” limitation); and

Limitation [1c-iii]/[7c]/12[c]: “*wherein the list information maintains a tree structure of the digital contents in the internal storage device before transferring the digital contents to the network storage device*” (hereafter the “*tree structure*” limitation).⁸

Prelim. Resp. 24–26 (citing Ex. 1004 ¶¶ 77, 303).

Patent Owner first contends that Lamkin’s CDS list does not teach the *list information* limitation, because Lamkin’s CDS list does not indicate “which device (e.g., internal storage device or network storage device) contains the content” and fails to specify or list the “digital contents transferred from the internal storage device to the network storage device,” as claimed.” *Id.* at 25. Patent Owner also contends that the Petition fails to

⁸ Petition Grounds 1B (Lamkin-Fiechter) and 1C (Lamkin-Ito) also rely only on Lamkin for teaching both limitations. Pet. 46, 48, 53.

establish that Lamkin teaches the *tree structure* limitation, because the Petition is allegedly silent as to whether (i) the hierarchical tree structure of Lamkin’s CDS list “is of the digital contents specifically *in the internal storage device*,” and (ii) the tree structure “is of the digital contents *before transferring the digital contents to the network storage device*.” *Id.* at 28–29 (citing Pet. 23–25). Patent Owner argues, therefore, that Grounds 1A–1C in the Petition fail to demonstrate a reasonable likelihood of success in establishing the obviousness of claims 7–12. *Id.* at 22–30.

We determine that the Petition satisfies the reasonable likelihood of prevailing standard under 35 U.S.C. § 314(a). We begin our analysis with a discussion of the Lamkin reference.

2. Overview of Lamkin (Ex. 1004)

Lamkin describes a “network media service [for] managing media content over a network.” Ex. 1004 ¶¶ 2–3. An annotated version of Lamkin Figure 1 is reproduced below from the Petition:

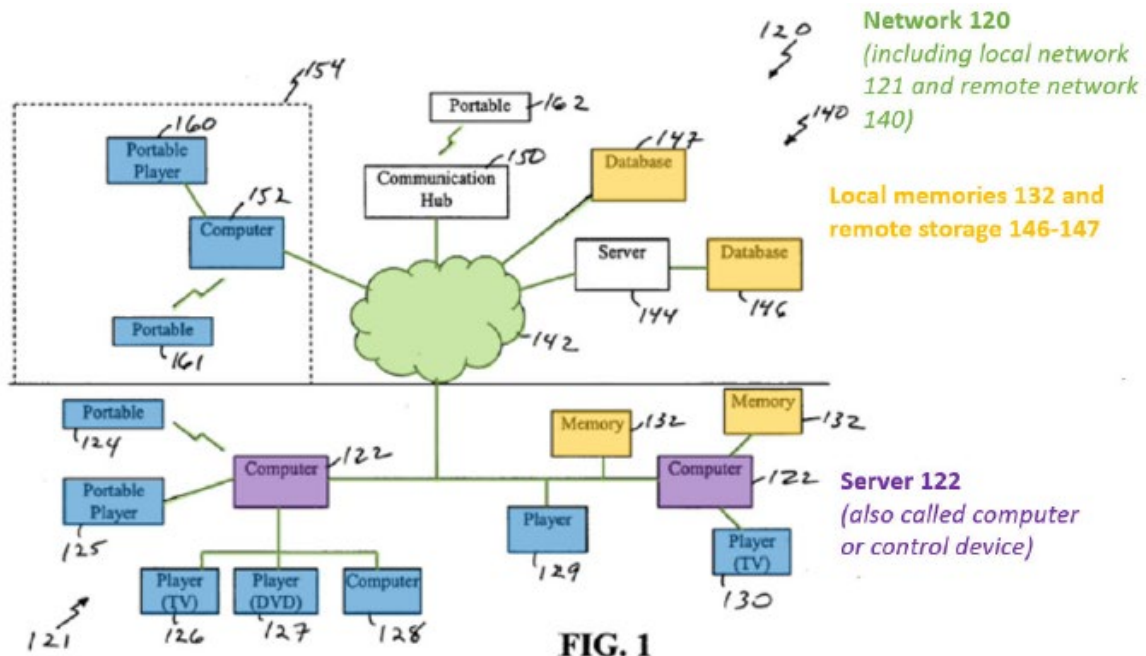


FIG. 1

Client devices 124-130 and 152,
160-161

Pet. 7 (citing Ex. 1004 ¶ 49). In annotated Figure 1, Lamkin depicts network 120 (green) in which “one or more local servers, computers or other control devices 122 [purple] provide control over . . . local network 121 and/or remote network 140, communicate with the client devices 124-130 [blue] and storage or other memory 132 [yellow] (e.g., database, network attached storage (NAS), and other such storage) that store content.” Ex. 1004 ¶ 49.

Lamkin discloses a process where some content is stored locally in memory 132 of computer server 122 and other content is transferred from computer server 122 to databases 146–147 for remote network storage. *Id.* ¶ 77. A “database listing, CDS or other such tracking” identifies “where the content is stored” and can include metadata that “allow[s] users to more easily locate and access the content.” *Id.* Digital content storage can be “based on a tiered storage structure” such that “the tiered structure can maintain some content at a local server readily available to the server for distribution to client devices, . . . and other content remotely stored, for example, at a remote server 144 . . . that can be accessed.” *Id.* ¶ 78.

A client device “capable of displaying the user interface [UI] from the server” receives “a listing of content” that includes “when the information is available, an identifier, date added to the network . . . , a source or source device of the content, devices to which the content has already been distributed . . . and other parameters.” *Id.* ¶¶ 86, 87 (Fig. 5). The UI “displays at least some of the available content accessible over the local and/or extended networks, and in some implementations provides an aggregated view of the content over the network.” *Id.* ¶ 204. The UI “can list or identify content available through the network, and in some embodiments, further identify the device on which content is stored,” which

“allows the user a better understanding of where content is located and potential time delays in accessing the content.” *Id.* ¶ 205.

3. Analysis

The list information limitation

The Petition relies on Lamkin’s CDS, which performs much like the CDS described in the ’101 patent, as a disclosure of the “*list information*” limitation. Pet. 22–23. The Petition explains, in detail, the basis for the argument:

As content is added to the system, the CDS is updated to include the content and “**whether the new content is centralized and/or where the content is stored and/or centralized,**” such that the list of available content includes content whether stored in the server or in the local memory or remote storage. APPLE-1004, [0077], [0128] (“An aggregated database of the servers 122, local client devices 124-130, local storage devices 132”). With this information, Lamkin’s server, and in particular the CDS (“list information transmission unit”), is able to provide a full list (“list information”) of all available contents to the user, including content stored in the server (“digital contents left in the internal storage device”) and content transferred from the server to the local or remote memories (“digital contents transferred from the internal storage device to the network storage device and stored in the network storage device”).

Id. (citing Ex. 1003 ¶¶ 277–280; Ex. 1004 ¶¶ 77, 87, 128). Patent Owner seizes on the Petition’s reference to Lamkin’s “aggregated database” to argue that “with Lamkin’s aggregated content view, ‘the user does not need to know which device contains the content, but simply what content they are looking for.’” Prelim. Resp. 25 (quoting Ex. 1004 ¶ 303). Patent Owner also argues that “Petitioner’s reliance on Lamkin’s CDS list are inapposite because they relate to a user’s determination regarding contents to transfer *rather than a post-transfer determination of where contents are stored.*” *Id.*

(emphasis added).

Patent Owner’s argument avoids addressing the Petition’s full argument (partially quoted above), particularly in context of all relevant disclosures in Lamkin cited in the Petition and discussed in Dr. Zadok’s testimony. As stated above, Lamkin’s “listing of content” identifies “where the content is stored and/or centralized” and can include metadata that “allow[s] users to more easily locate and access the content,” which is consistent with the Petition’s argument. Ex. 1004 ¶¶ 77–78, 87, 205 (all cited in the Petition). Dr. Zadok explains:

Lamkin’s “listing 522 includes a listing of one or more content that can potentially be distributed over the local network 121 and/or remote network 140.” EX1004 (Lamkin), [0087], [0113] (“The listing can be a centralized listing, one or more CDSs, one or more device listings, listings accessed over the remote network 142, and/or other such listings”), [0204]-[0205], [0266]-[0268]. A POSITA would have understood from Lamkin’s disclosure that the aggregated database provides to the user a *single list that includes available content that remains stored in the server 122 and content that is stored in other memories and remote servers*, because Lamkin’s database is the aggregate of all available content.

Ex. 1003 ¶ 278 (emphasis added). We do not read Lamkin, Dr. Zadok’s testimony, or the Petition as relying on Lamkin’s aggregated view to provide a list of content that would exclude content location and transfer information, as asserted by Patent Owner.

Dr. Zadok provides a detailed mapping of Lamkin to the *list information* limitation, which, on the present record, provides adequate support for the Petition:

Lamkin discloses “the list information [Lamkin’s listing of content] lists the digital contents [Lamkin’s contents] left in [stored on, per Lamkin] the internal storage device [RAM of

Lamkin’s computer 122] and the digital contents [Lamkin’s contents] transferred from [moved from, per Lamkin] the internal storage device [RAM of Lamkin’s computer 122] to the network storage device [Lamkin’s memory 132 or remote storage 146-147] and stored in [stored in, per Lamkin] the network storage device [Lamkin’s memory 132 or remote storage 146-147].

Id. ¶ 280. Dr. Zadok maps Lamkin’s disclosures to each phrase in the *list information* limitation. We also observe that, to the extent Patent Owner’s argument relies on an interpretation of the *list information* limitation in claims 7 and 12 requiring identification of the storage location of each listed media file, Patent Owner should explain its position in full and provide a claim construction analysis to which Petitioner may respond. *See, e.g.*, Prelim. Resp. 25–26 (criticizing the Petition for allegedly failing to show “where content ***has been transferred*** across all devices,” as opposed to only “determin[ing] whether the content is ***to be transferred to*** or can be utilized by other devices on the network.”).

For example and by way of comparison, dependent claim 11 specifically recites:

[W]herein said list information transmission unit makes the list information to be transmitted to the network player include information for *identifying* whether each digital content is *currently stored* in the internal storage device or the network storage device *in the display list* of the network player.

Ex. 1001, 12:10–17, 14:1–8 (emphases added). The *list information* limitation in [7c-ii], unlike claim 11, does not recite “identifying whether” or where each digital file is “currently stored” in the “display list” at the time the list information is transmitted to the network player. The Petition, moreover, addresses Patent Owner’s argument in the discussion of claims 5 and 11, where the Petition argues that Lamkin discloses providing a list “that includes an indicated storage location of content.” Pet. 37, 39 (citing Ex.

1003 ¶¶ 353–355 (“Lamkin describes that the content user interface displays the location of the content in the list, as well as network navigation that allows a user to understand where listed content is located.”); Ex. 1004 ¶¶ 77, 85, 87, 113, 199, 204–205).

In sum, on the present record, Patent Owner’s arguments distinguishing Lamkin from the *list information* limitation are unavailing. The argument and evidence presented in the Petition adequately supports the contention that Lamkin discloses, teaches, or suggests the *list information* limitation for purposes of satisfying the reasonable likelihood standard on institution.

The tree structure limitation

Patent Owner raises additional arguments challenging the sufficiency of the Petition’s evidence and argument that Lamkin discloses the *tree structure* limitation. Prelim. Resp. 28–29. Although Patent Owner acknowledges that the Petition relies on Lamkin’s teaching of a CDS list that organizes content in a hierarchical directory or tree structure, Patent Owner contends “the Petition is silent” as to whether the tree structure reflects content “specifically *in the internal storage device . . . before transferring the digital contents to the network storage device.*” *Id.* at 28. Patent Owner again overlooks the Petition’s full argument in context of the citations to Lamkin and Dr. Zadok’s testimony.

First, we understand the *tree structure* limitation from the description in the ’101 patent to be list information that maintains “the entire tree structure that includes the tree structure of . . . the contents of the HDD of the HDD portable player” and any “part of the contents [that] has been transferred to the network HDD,” for example as shown in Figure 4. Ex. 1001, 5:53–65. The Petition explains Lamkin’s system in the context of

mapping Lamkin to the *tree structure* limitation described and claimed in the '101 patent:

As content is added to the system, “a log file, database listing, CDS or other tracking is updated identifying the new content, whether the new content is centralized **and/or where the content is stored and/or centralized**,” such that the hierarchical directory of available content to be displayed to the user is updated to include contents regardless of where they are stored in the internal memory of the server or in remote storage and local memories (“maintains a tree structure of digital contents in the internal storage device before transferring the digital contents to the network storage device”).

Pet. 25 (citing Ex. 1003 ¶¶ 285–288; Ex. 1004 ¶¶ 77, 124). The Petition cites Lamkin paragraph 77, which further discloses that “[t]he listing, log, CDS or other such tracking” is updated to include content “transferred and/or stored to one or more storage locations.”

Dr. Zadok testifies that, “[a]s depicted in Lamkin’s annotated FIG. 4 above, content added to the system is logged in the database regardless of whether it is stored in the server *or is transferred from the server for storage elsewhere*.” Ex. 1003 ¶ 288 (emphasis added). Dr. Zadok includes a detailed mapping of Lamkin onto the *tree structure* limitation:

In sum, regarding claim limitation [1c-iii], Lamkin discloses “the list information [Lamkin’s listing of content] maintains a tree structure [forms a tree structure, per Lamkin] of the digital contents [Lamkin’s content such as media files] in the internal storage device [RAM of Lamkin’s computer or server 122] before transferring [moving, per Lamkin] the digital contents [Lamkin’s content such as media files] to the network storage device [Lamkin’s memory 132 or remote storage 146-147].”

Ex. 1003 ¶ 289. Patent Owner presents only unsupported attorney arguments in opposition to Dr. Zadok’s testimony, including a critique of Lamkin’s “aggregated view” embodiment, which we address above. Prelim.

Resp. 28–29. On the present record, we determine the Petition has mapped Lamkin’s system to the *tree structure* limitation in a manner consistent with the claim language and supporting description in the ’101 patent.

In sum, the argument and evidence presented in the Petition adequately supports the contention that Lamkin discloses, teaches, or suggests the *tree structure* limitation for purposes of satisfying the reasonable likelihood standard on institution.

4. Motivation to Combine Lamkin-Fiechter, Lamkin-Ito (Grounds 1B–1C)

The Petition offers several motivations to combine Lamkin and Fiechter (Ground 1B) in the manner claimed in the ’101 patent with a reasonable expectation of success, which we find sufficient to satisfy the reasonable likelihood standard on the present record. Pet. 42–45 (citing Ex. 1003 ¶¶ 360–362, 372–382). The Petition also offers several motivations to combine Lamkin and Ito (Ground 1C) in the manner claimed in the ’101 patent with a reasonable expectation of success, which we also find sufficient on the present record. Pet. 49–52 (citing Ex. 1003 ¶¶ 383–401). The Preliminary Response does not challenge the Petition’s asserted motivations to combine Lamkin-Fiechter or Lamkin-Ito. Prelim. Resp. *generally*.

On the present record at this stage of the proceeding, we determine the Petition sufficiently supports a motivation to combine Lamkin-Fiechter and Lamkin-Ito with a reasonable expectation of success for the reasons articulated in the Petition and Dr. Zadok’s cited declaration paragraphs.

We also have reviewed the Petition’s argument and evidence in support of the contentions that claims 7–12 are obvious over Lamkin-Fiechter and Lamkin-Ito. Pet. 40–53 (citing Ex. 1003 ¶¶ 215–323, 358–

401). Patent Owner does not address the Lamkin-Fiechter or Lamkin-Ito combinations in the Preliminary Response, beyond challenging Lamkin's disclosure, teaching, or suggestion of the *list information* and *tree structure* limitations. Prelim. Resp. *generally*. At this stage of the proceeding, we determine the argument and evidence presented in the Petition demonstrate a reasonable likelihood that Petitioner would prevail in showing the unpatentability of claims 7–12 as obvious over Lamkin-Fiechter and Lamkin-Ito.

5. *Conclusion for Grounds 1A-1C*

For the reasons given above, we determine on the present record that the Petition adequately demonstrates a reasonable likelihood that Lamkin, Lamkin-Fiechter, and Lamkin-Ito disclose, teach, suggest, or otherwise render obvious claim 7–12 of the '101 Patent.

III. CONCLUSION

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood of prevailing in its challenge to the patentability of claims 7–12 in the '101 patent. Therefore, we institute *inter partes* review of claims 7–12 on all grounds. *See SAS*, 584 U.S. at 365.

At this stage of the proceeding, the Board has not made a final determination as to the patentability of any challenged claims or any underlying factual or legal issues. A final determination will be made based on the record as developed during the *inter partes* review. Any final determination will be based on the record developed during trial. Any argument not asserted in a timely-filed brief, such as a response to the Petition, may be deemed forfeited or waived, even if that argument appears in the Preliminary Response.

ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 7–12 of the '101 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '101 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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