

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC.,
Petitioner,

v.

VL COLLECTIVE IP LLC,¹
Patent Owner.

IPR2023-00630
Patent 7,440,559 B2

Before JEFFREY S. SMITH, STACEY G. WHITE, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

¹ Although the Petition states that the Patent Owner is VideoLabs, Inc., Patent Owner states that VL Collective IP LLC is the Patent Owner, and that VideoLabs, Inc. is a real party-in-interest. Paper 4, 2.

I. INTRODUCTION

A. Background and Summary

Petitioner, Netflix, Inc., filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–24 of U.S. Patent No. 7,440,559 B2 (Ex. 1001, “the ’559 patent”) pursuant to 35 U.S.C. § 311(a). VL Collective IP LLC (“Patent Owner”) then filed a Patent Owner Response (Paper 16, “PO Resp.”) to the Petition. Petitioner filed a Reply (Paper 19, “Reply”) to the Patent Owner Response. Patent Owner filed a Sur-Reply (Paper 20, “PO Sur-Reply) to the Reply.

We have jurisdiction under 35 U.S.C. § 6(b)(4) and § 318(a). This Decision is a final written decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of claims 1–24 of the ’559 patent. We determine Petitioner has shown by a preponderance of the evidence that those claims are unpatentable.

B. Real-Parties-In-Interest

Petitioner identifies itself (Netflix, Inc.) and Netflix Streaming Services, Inc. as real parties-in-interest. Pet. 58. Patent Owner identifies itself (VL Collective IP LLC) as well as VL IP Holdings LLC and VideoLabs, Inc. as real parties-in-interest. Paper 4, 2.

C. Related Matters

The Petition states that the ’559 patent is the subject of the following proceedings:

VideoLabs, Inc. v. Netflix Inc., No. 1-22-cv-00229, D. Del., filed Feb. 23, 2022;

Starz Entertainment, LLC v. VL Collective IP, LLC, No. 1-21-cv-01448, D. Del., filed Oct. 13, 2021.

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Pet. 58. Patent Owner identifies the following proceeding which was dismissed on December 27, 2022, and “previously asserted the ’559 patent.” Paper 4, 2–3.

VideoLabs, Inc. et al. v. Amazon.com, Inc. et al., Nos. 6-22-cv-00079, 6-22-cv-01167, W.D. Tex., filed Jan. 21, 2022.

II. THE ’559 PATENT

The ’559 patent generally relates to “controlling the flow of content in terminals operable with mobile telecommunication and digital broadcast networks.” Ex. 1001, 1:11–13. The ’559 patent discloses that “[d]igital broadband data broadcast networks are known.” *Id.* at 1:58. The ’559 patent discloses that the “use of mobile telecommunications with a broadband delivery technique . . . has been proposed in the past in order to achieve efficient delivery of digital services to users on the move.” *Id.* at 2:8–11. The ’559 patent discloses that “current techniques for downloading content can suffer from inefficient control of content received and thereafter stored by mobile terminals, as well as inefficient control of content stored by mobile terminals.” *Id.* at 2:49–53. The ’559 patent discloses that to facilitate control of the flow of content in one embodiment, a terminal sends a content request that includes terminal status information. *Id.* at 2:62–65.

Fig. 6 of the '559 patent is shown below.

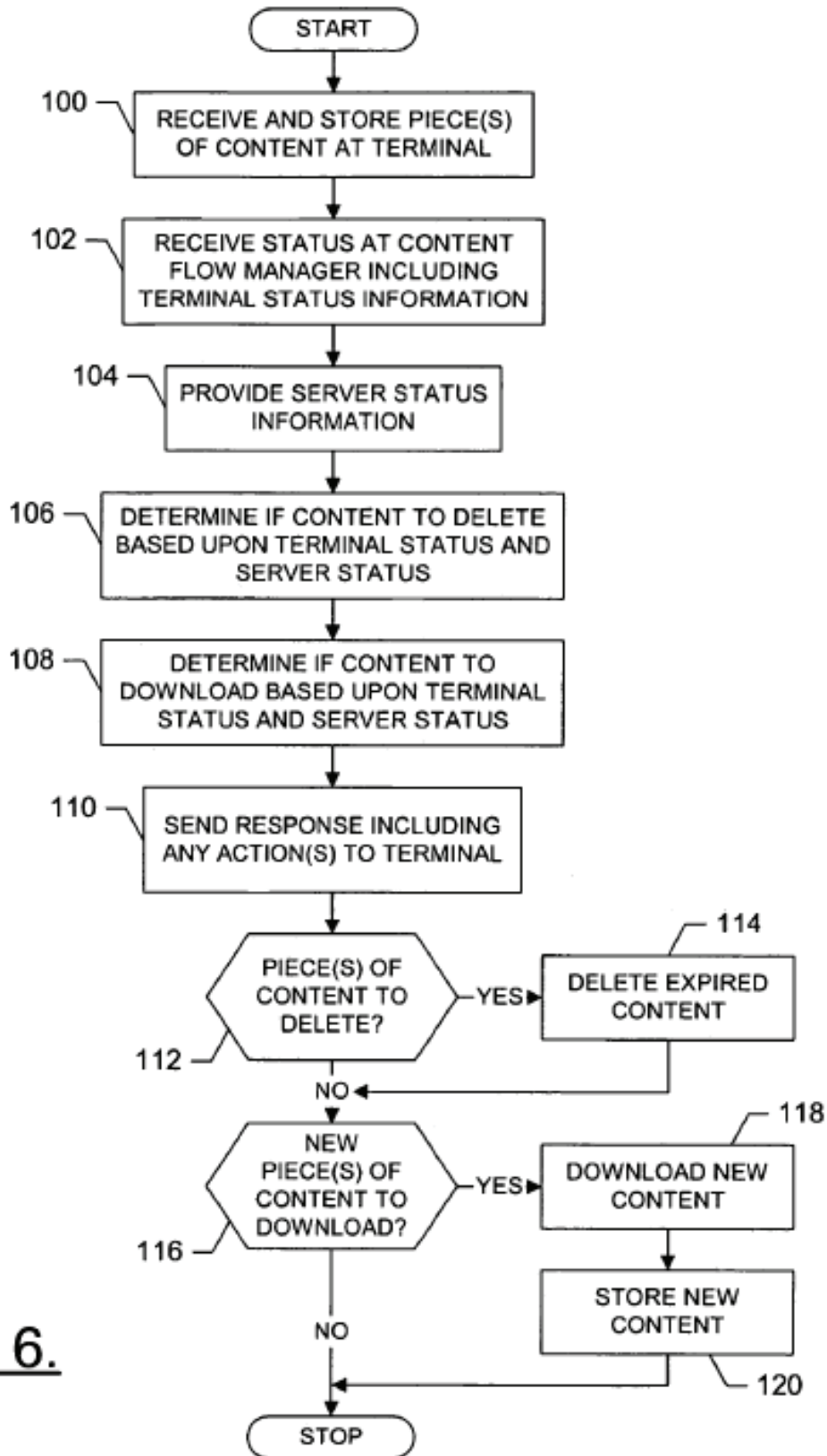


FIG. 6.

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Figure 6, above, illustrates a flowchart of a method of controlling the flow of content between a terminal and network entity. Ex. 1001, 4:28–30. The terminal is capable of sending a content status, which includes terminal status information, to a content flow manager. *Id.* at 3:10–15. The terminal status information can include “information regarding the terminal that accounts for user preferences, capabilities of the terminal and/or previous contents stored by the terminal.” *Id.* at 3:1–4, 12:18–30. In addition to terminal status information, the content flow manager can be provided with server status information regarding a source of content to the terminal. *Id.* at 12:32–37.

Based upon the terminal status information and/or the server status information, the “control flow manager can control the flow of content to the terminal” including by “controlling the terminal to delete at least one piece of content from a memory of the terminal, and/or download at least one piece of content from a source of content.” *Id.* at 3:18–24. The content may include multimedia data. *Id.* at 2:3–7.

III. ILLUSTRATIVE CLAIM

Challenged claim 1 of the '559 patent recites:

1. An apparatus comprising:

a processor configured to receive, from a terminal located remote from the apparatus, a content status including terminal status information, and configured to receive server status information regarding a source of content, wherein the server status information comprises a listing of at least one piece of content available from the source, wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to perform one or more actions to thereby control the flow of content to the terminal based upon the terminal status information and the server status information, and

wherein the at least one piece of content available from the source, and the content for which the processor is configured to control the flow, comprise multimedia content.

Ex. 1001, 15:15–31.

IV. ASSERTED GROUNDS

Petitioner asserts that claims 1–24 of the '559 patent are unpatentable on the following grounds.

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, 22	102(a), (e)	Cassin ³
1–24	103(a)	Cassin, Huston ⁴
1–24	103(a)	Huston

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103. Because the '559 patent has an effective filing date prior to the effective date of the applicable AIA amendment, we refer to the pre-AIA version of §§ 102, 103.

³ U.S. Publication No. 2003/0023427 A1; pub. Jan. 30, 2003 (Ex. 1004).

⁴ U.S. Patent No. 7,243,136 B2; issued July 10, 2007 (Ex. 1005).

V. LEVEL OF ORDINARY SKILL

Petitioner identifies a person of ordinary skill as someone with “a bachelor’s degree in electrical or computer engineering, or a closely related scientific field such as computer science, and two years of work experience with multimedia content transmission and management.”

Pet. 10. “Alternatively, any lack of experience could be remedied with additional education (*e.g.*, a master’s degree), and likewise, a lack of education can be remedied with additional work experience (*e.g.*, 4–5 years).” *Id.* Patent Owner does not address the level of ordinary skill. *See* PO Resp. 17.

The level of ordinary skill in the art usually is evidenced by the references themselves. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). As Petitioner’s description of a person of ordinary skill appears commensurate with the subject matter before us, we apply Petitioner’s definition for purposes of this Decision.

VI. CLAIM CONSTRUCTION

We interpret claim terms using “the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b) (2019). In this context, claim terms “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (citations omitted) (en banc). “In determining the meaning of the 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*,

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Inc., 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317 (citations omitted).

We construe only those claim terms that require analysis 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”). Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Petitioner contends that “no claim terms require specific construction to resolve the unpatentability issues presented” in the Petition. Pet. 15–16. Similarly, Patent Owner contends that “no express construction of any term is required.” PO Resp. 18. For purposes of this decision, we do not construe any claim terms.

VII. ANALYSIS

A. Legal Standards

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008).

Although the elements must be arranged or combined in the same way as in the claim, “the reference need not satisfy an *ipsissimis verbis* test,” i.e., identity of terminology is not required. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (citing *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990)).

A 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 at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective evidence of obviousness or nonobviousness, i.e., secondary considerations.⁵ See *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). An obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418.

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing

⁵ The parties do not direct us to any objective evidence of nonobviousness.

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In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2016) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). Furthermore, Petitioner does not satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

B. Claims 1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, and 22 As Anticipated By Cassin

1. Cassin – Exhibit 1004

Cassin is directed toward implementing a media content delivery and playback scheme. Ex. 1004 ¶ 3. Cassin’s system “includes a server computer system” and “a client computer system” that are coupled to each other by a network, which “may be implemented as a local area network, wide area network, a public access network (e.g., the Internet), or a combination of networks.” *Id.* ¶ 140; Fig. 6. The client computer “may be implemented as a portable device.” *Id.* ¶ 141.

Figure 6 of Cassin is shown below.

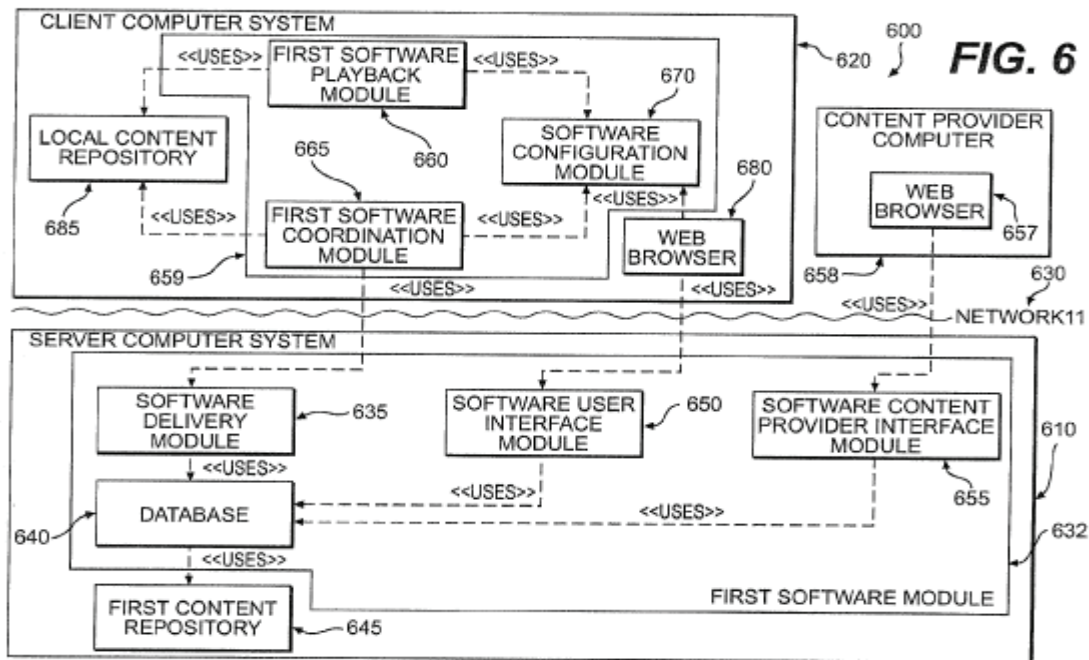


Figure 6 above illustrates a system for implementing a media content delivery and playback scheme. Ex. 1004 ¶ 140. The server may contain a database that stores metadata. *Id.* ¶ 146. The metadata is information “about the media content available to the system.” *Id.* Media files may be contained in a content repository accessible via the database. *Id.* Cassin explains that the “client and server computers may interact in accordance with one of two protocols.” *Id.* ¶ 164.

According to the first protocol, the client computer sends user information to the server after a connection is established. *Id.* The server computer uses the user information to query the database and then responds with a list of all content to which that user is entitled. *Id.* The server attempts to send a media content item to the client computer; however, if the client computer already has the media content item, then the client provides an indication to the server that it currently has the media content item. *Id.*

The server computer then offers the next media item content item on the list.
Id.

According to the second protocol, the client sends user information to the server computer. *Id.* ¶ 166. The server computer uses the user information to query the database and then responds with a list of all content to which that user is entitled. *Id.* The client then identifies media content items that it does not already have in its local content repository, and returns a second list including only those items to the server. *Id.* The server then delivers those media content items included in the second list to the client.
Id.

2. *Independent Claim 1*

Preamble

The preamble of claim 1 recites an “apparatus comprising.” Petitioner relies on Figure 6 of Cassin to describe the preamble. Pet. 18–19. We find that Petitioner has shown that Cassin discloses the features recited in the preamble.⁶

“A Processor Configured to Receive A Content Status”

Claim 1 recites “a processor configured to receive, from a terminal located remote from the apparatus, a content status including terminal status information.”

The Petition’s Contentions

Petitioner contends that the server computer shown in Figure 6 of Cassin describes the claimed processor. Pet. 20–21 (citing Ex. 1004 ¶¶ 142, 146, Fig. 6). Petitioner contends that the client computer shown in Figure 6

⁶ Because Petitioner has shown that the features in the preamble are satisfied by the prior art, we need not determine whether the preamble is limiting at this time. See *Vivid Techs.*, 200 F.3d at 803.

of Cassin describes the claimed “terminal located remote from the apparatus.” *Id.* at 20 (citing Ex. 1004 ¶¶ 151, 156, Fig. 6). Petitioner contends Cassin discloses the claimed “content status including terminal status information” received by the processor from the terminal in describing that the server receives, from the client computer, (a) user information, (b) a request for a list of content items, (c) an indication that the client computer currently has a content item, and (d) a list of content items that the client computer does not have. Pet. 20–23 (citing Ex. 1004 ¶¶ 10, 12, 133–137, 142, 146, 151, 156, 164–168, Figs. 6, 8, 9, claims 130–133).

In particular, Petitioner contends that the client computer sends user information to the server. Pet. 21; Ex. 1004 ¶¶ 164, 166. Petitioner contends that the client also requests a list of content items from the server. Pet. 21; Ex. 1004 ¶ 166. Petitioner contends that the user information and the request for a list of content items describes the claimed “content status including terminal status information.” Pet. 21.

Petitioner contends that, according to a first protocol, the server attempts to send a first item on the list to the client. Pet. 22; Ex. 1004 ¶ 164 *see id.* ¶ 163 (“The server computer . . . offer[s] [the] content items to the client computer for download.”). If the client already has the item stored in its memory, the client sends an indication to the server that it currently has the item. Pet. 22; Ex. 1004 ¶ 164; *see id.* ¶ 163 (“If the client computer possesses the specific media content item, then the client computer refuses the download offer.”). Petitioner contends that the indication describes the claimed “content status including terminal status information.” Pet. 22.

Petitioner contends that, according to a second protocol, after the server sends the list of content items to the client, the client identifies those content items on the list that it does not already have stored in its memory

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and sends this second list to the server. Pet. 23; Ex. 1004 ¶ 166. Petitioner contends that the second list, which identifies content items that the client does not have, describes the claimed “content status including terminal status information. Pet. 23.

Summary of the Subsequent Contentions of the Parties

Patent Owner contends that, out of the four types of content status identified in the Petition, the only alleged content status that the alleged response is in response to is the user information, and not the request for a list, nor the indication, nor the second list sent from the client. PO Resp. 23. According to Patent Owner, sending the client a list of content items to which the client is entitled occurs as part of the first protocol, while requesting the list of content items and sending a second list of content items that the client does not have occurs as part of the second protocol. *Id.* at 23–24. Patent Owner contends that the first and second protocols cannot be combined to establish anticipation. *Id.* at 24.

With respect to the indication, Patent Owner contends that the client sends the indication to the server after the server sends the list of content items to the client. *Id.* With respect to the user information, Patent Owner contends that Cassin’s user data is data about the user and does not include information about content or terminal status. PO Resp. 25–26 (citing Ex. 2002 ¶ 78).

Petitioner contends that the Petition does not combine the first protocol and second protocol embodiments of Cassin. Rather, Petitioner contends that the Petition shows that the first protocol embodiment and the second protocol embodiment of Cassin independently meet the response that instructs limitation of the challenged claims. Reply 10, n1.

With respect to Cassin’s user information, Petitioner contends that the Specification of the ’559 patent discloses that “terminal status information can include information reflecting user preferences, capabilities of the terminal, previous contents stored by the terminal, and/or the use of such previous contents.” Reply 8 (quoting Ex. 1001, 3:63–66). Petitioner contends that the ’559 patent uses the claimed “terminal status information” to facilitate the flow of content. *Id.* (quoting Ex. 1001, 2:62–65). Petitioner contends that Cassin discloses that the client computer sends user information to the server and the server uses the user information to query a database. *Id.* (citing Ex. 1004 ¶¶ 164, 167). Petitioner contends that Cassin discloses that the server computer uses the user information “to ‘facilitate the delivery of media content to the client computer.’” *Id.* (quoting Ex. 1004 ¶ 155). Petitioner contends that the claimed “a content status including terminal status information,” read in light of the Specification, encompasses the user information of Cassin. *Id.* at 8–9 (citing Ex. 1001, 3:63–66). Petitioner contends that Patent Owner’s contention regarding the statistical user information of Cassin does not address Cassin’s disclosure of user information used to query the database to facilitate the delivery of media content to the client. *Id.* (citing PO Resp. 25).

Patent Owner contends that Cassin’s user information is information about the user which is used to target advertisements to the user. PO Sur-Reply 7 (citing Ex. 1004 ¶ 191). Patent Owner contends that the ’559 patent, in contrast, discloses that terminal status information can include information reflecting user preferences. *Id.* (citing Ex. 1001, 3:63–66). Patent Owner contends that Cassin’s statistical user information is Cassin’s only example of user information. *Id.* at 8 (citing Reply 7–9). Patent owner contends that Petitioner cannot rely on Cassin’s disclosure of statistical

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information to describe the claimed “content status,” then allege that this disclosure does not describe user information. *Id.* (citing Reply 8; Ex. 1004 ¶ 191). Patent Owner also contends that Petitioner has not shown that Cassin does not use the statistical user information to query a database. *Id.* at 8–9.

Analysis

We disagree with Patent Owner’s contention that the Petition relies on a combination of two separate embodiments of Cassin, the first protocol embodiment and the second protocol embodiment as shown in Figures 8 and 9, to satisfy this limitation for the anticipation ground. *See* PO Resp. 23–24; Ex. 1004 ¶¶ 164–167. We agree with Petitioner that the Petition shows that the first protocol embodiment and the second protocol embodiment of Cassin independently meet the “response . . . that instructs” limitation of the challenged claims for the reasons given by Petitioner and discussed in our analysis below. *See* Reply 10, n1.

We agree with Petitioner that Cassin’s user information describes the claimed “content status including terminal status information.” The ’559 patent discloses that terminal status information can include information reflecting user preferences, capabilities of the terminal, previous contents stored by the terminal, and/or the use of such previous contents, and that terminal status information is used to facilitate the flow of content. Ex. 1001, 2:62–65, 3:63–66. Cassin discloses that the client computer transmits user information to the server computer “to facilitate the delivery of media content to the client computer.” Ex. 1004 ¶ 155. Cassin discloses an example of user information facilitating the flow of content by describing that “the server computer uses the user information to query the database” and “the database responds with a list of all content to which that user is

entitled.” *Id.* ¶ 164; *see id.* ¶¶ 160, 162. We agree with Petitioner that the user information of Cassin, used to facilitate the flow of content to the terminal, describes the claim term “a content status including terminal status information” as read in light of the Specification.

In addition, we disagree with Patent Owner’s contention that Cassin only gives one example of user information, which is the statistical demographic information about a user such as gender, age, and income as described in paragraph 191. *See* PO Resp. 25 (quoting Ex. 1004 ¶ 191); PO Sur-Reply 7–8. We also disagree with Patent Owner’s contention that Cassin’s user information includes no information about content or terminal status. *Id.* Contrary to Patent Owner’s contentions, Cassin describes “control[ling] the delivery of media content based on user statistical information concerning media usage by a user employing the remote device” (Ex. 1004 ¶ 15; *see id.* ¶¶ 33, 111, 120, 145) and that “the delivery of media content is based on a user-generated content preference” (Ex. 1004 ¶ 99). We find that the scope of the claimed “terminal status information,” read in light of the ’559 Specification’s disclosure of “information reflecting . . . the use of . . . previous contents” stored by the terminal (Ex. 1001, 3:63–66), encompasses Cassin’s description of user statistical information concerning media usage by a user employing a terminal device. We also find that the scope of the claimed “terminal status information,” read in light of the ’559 Specification’s disclosure of “information reflecting user preferences” (Ex. 1001, 3:63–66), encompasses Cassin’s description of “a user-generated content preference.”

In addition, Cassin discloses that “the client sends information that uniquely identifies the user” to the server to facilitate the flow of information to the client (Ex. 1004 ¶ 160; *see id.* ¶¶ 155, 157, 162, 164,

166). Patent Owner contends that “the plain meaning of ‘content status including terminal status information’ . . . requires that the information relate to . . . the ‘terminal status’ (status of the terminal).” PO Sur-Reply 7–8. We find that Cassin’s description of information that uniquely identifies the user of the terminal “relate[s] to . . . the ‘terminal status’ (status of the terminal),” which is that the terminal is being used by the identified user. Similarly, Cassin’s user demographic information such as the gender, age, and income of the user of the terminal (Ex. 1004 ¶ 191) relates to the status of the terminal, which is that the terminal is being used by a person of a certain gender, age, and income. Therefore, we find that information about the user of a terminal, such as information that uniquely identifies the user of the terminal or information about the gender, age, and income of the user of the terminal, describes “terminal status information” as claimed.

We also disagree with Patent Owner’s contention that Cassin’s disclosure of the client sending an indication to the server that the client currently has a media content item does not describe “terminal status information” as claimed because the indication is sent to the server after the server sends a list of content items to the client. *See* PO Resp. 24 (citing Ex. 2002 ¶ 77), 30 (citing Ex. 2002 ¶ 89); *see* PO Sur-Reply 13–15. We agree with Petitioner that the indication sent from the client to the server according to Cassin’s first protocol indicates that the client currently has the media content item, which describes the claimed “terminal status information” as read in light of the Specification’s disclosure of “information reflecting . . . previous contents stored by the terminal” (Ex. 1001, 3:63–66). Reply 14 (citing Ex. 1004 ¶ 164). Similarly, we also agree with Petitioner that the second list identifying items that are not currently stored on the client according to Cassin’s second protocol

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describes the claimed “terminal status information.” Reply 15 (citing Ex. 1004 ¶ 166).

We find that Petitioner has shown that Cassin discloses this limitation of claim 1.

“Configured to Receive Server Status Information”

Claim 1 recites “configured to receive server status information regarding a source of content, wherein the server status information comprises a listing of at least one piece of content available from the source.”

The Petitioner’s Contentions

Petitioner contends Cassin discloses “server status information regarding a source of content” in describing a server with a multimedia content repository, in which the server receives a list of all content to which the user is entitled from the database located on the server. Pet. 23–24 (citing Ex. 1004 ¶¶ 146, 164, 166, Figs. 8, 9). Petitioner contends that the list identifies at least one piece of media content available from the repository, which describes “a listing of at least one piece of content available from the source” as claimed. *Id.*

Summary of the Subsequent Contentions of the Parties

Patent Owner contends that Cassin discloses that the server system accesses database 640, not content repository 645, to provide a list of content that the user is entitled to. PO Resp. 37 (citing Ex. 1004 ¶¶ 146, 164, 166). Patent Owner contends that the database does not store the media files. *Id.* at 38 (citing Ex. 1004 ¶ 146). Patent Owner contends that the content available at the content repository may change, and that the database may not receive data about the change. *Id.* at 38–39 (citing Ex. 2002

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¶¶ 104–105). Patent Owner concludes that in this case, the list returned by the database will not indicate content available from the source. *Id.* at 39.

Petitioner contends that Patent Owner speculates that the database may not be perfectly synchronized with the content repository, such that the database would return files that were not available from the source. Reply 16. Petitioner contends that Patent Owner’s speculation is inconsistent with Cassin’s disclosure that the database “must include metadata about the media content available to the system,” which necessarily includes all content actually stored in the content repository. *Id.* at 16–17 (citing Ex. 1004 ¶ 146). Petitioner also contends that Cassin discloses storing media files in the database, or as an alternative, storing media files in the content repository. *Id.* at 17. Petitioner contends that a person of ordinary skill in the art would have understood that the database gets updated to ensure that it is current with the contents of the repository. *Id.*

Patent Owner contends that it is impossible for the database to necessarily reflect the contents of the content repository, therefore, a person of ordinary skill in the art would understand Cassin’s disclosure to mean that the database includes metadata about the media content available to the system as best it knows. PO Sur-Reply 11 (citing Ex. 1004 ¶¶ 146, 164, 166). Patent Owner contends that, as a result, Cassin does not disclose that media files are stored in the database. *Id.* at 11–12.

Analysis

We agree with Petitioner for the reasons given by Petitioner. First, we agree that Cassin’s disclosure that the database “must include metadata about the media content available to the system” means that the database necessarily includes all media content stored in the content repository. Ex. 1004 ¶ 146. We rely on Mr. Wechselberger’s testimony in finding that

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Cassin’s description of a database that “must,” not may, “include metadata about the media content available to the system” (Ex. 1003 ¶ 68 (quoting Ex. 1004 ¶ 146)) means, to a person of ordinary skill in the art that the database must be synchronized with the content repository in order to include information about the available media content stored in the content repository. *See* Ex. 1003 ¶¶ 62–71; Reply 17.

We disagree with Patent Owner’s contention and Dr. Goodrich’s testimony that it is impossible for the database to necessarily reflect the contents of the content repository because the contention and testimony are inconsistent with the disclosure of Cassin as discussed in the previous paragraph. We also are not persuaded by Dr. Goodrich’s deposition testimony that “Mr. Wechselberger is making a logical leap that is not supported by the specification; namely, that the database must necessarily be synchronized with the content repository 645” because this testimony is inconsistent with the disclosure of Cassin. *See* Ex. 1025, 39:8–12; Ex. 1004 ¶ 146.

In addition, we agree with Petitioner that Cassin discloses storing media files in the database as an alternative to storing media files in the content repository because Cassin explicitly describes storing media files in the database as an alternative to storing media files in the repository. Ex. 1004 ¶ 146; Reply 17; *see* Ex. 1025, 42:20–24 (In response to the question “you would agree that the paragraph 146 of Cassin discloses that the database could actually include media content files themselves,” Dr. Goodrich answers “Exactly. That’s my point.”). We find that in Cassin’s embodiment of storing media files in the database rather than in the content repository, the database includes metadata about the available media content. Ex. 1004 ¶ 146. We find that information about available media

content received from the database located on Cassin's server describes "server status information regarding a source of content" as recited in claim 1.

We find that Petitioner has shown that Cassin discloses this limitation of claim 1.

"Send, to the terminal, a Response . . . That Instructs"

Claim 1 recites "wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to perform one or more actions to thereby control the flow of content to the terminal based upon the terminal status information and the server status information."

The Petition's Contentions

Petitioner contends that Cassin's first protocol as well as Cassin's second protocol describe this limitation. Pet. 24–26 (citing Ex. 1004 ¶¶ 12, 85, 133–137, 146, 164–166, claims 130–132).

Petitioner contends that Cassin discloses, according to the first protocol, that the server sends a list of content items to the client and attempts to send the first item on the list to the client, then the client determines whether it has the first item and if so, sends an indication to the server that it currently has the first item. Pet. 25. Petitioner contends that after receiving the indication, the server does not deliver the first item to the client, which "control[s] the flow of content" as claimed. *Id.*

Petitioner contends that Cassin discloses that the server then attempts to send the second item on the list to the client. Pet. 25. Petitioner contends that if the client does not indicate that it has the second item, the server instructs the client to download the second item, which describes "a response . . . that instructs the terminal to perform one or more actions to

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thereby control the flow of content based upon the terminal status information and the server status information” as claimed. *Id.* at 25–26.

Petitioner contends that Cassin discloses, according to the second protocol, that the client computer sends a list of content items that the client does not have to the server. Pet. 26. Petitioner contends that the server then instructs the client to download the content items on the list, which “control[s] the flow of content” as claimed. *Id.*

Summary of the Subsequent Contentions of the Parties

Patent Owner contends that Cassin’s disclosure of attempting to send the first media content item on the list to the client does not describe the claimed response that instructs the terminal because the next action taken by the client is determining whether it already has the item, and if so, providing an indication to the server. PO Resp. 30–32. According to Patent Owner, the client was not instructed to take these actions. *Id.* at 31.

Patent Owner contends that Cassin’s disclosure of sending the second item on the list after the client has indicated that it already has the first item does not disclose the claimed response that instructs the terminal because the server, not the client, takes the action of sending the content. *Id.* at 32–33. According to Patent Owner, the server sending content to the client does not describe the client taking action to control the flow of content. *Id.* at 33 (citing Ex. 2002 ¶ 96).

Patent Owner contends that Cassin’s disclosure of the server not delivering the first item because the client already has the first item does not describe the claimed response that instructs the terminal because the server, not the client, takes the action, and because not delivering something cannot describe sending a response. PO Resp. 34 (citing Ex. 2002 ¶ 98). Patent Owner contends that the server sending items from the list of items that the

client does not have does not describe the claimed response that instructs the terminal because the server, not the client, is taking action to control the flow of content. PO Resp. 34–35 (citing Ex. 2002 ¶ 99).

Petitioner contends that when the server offers a media item for the client to download, the server is “instructing the terminal to perform one or more actions to thereby control the flow of content” as claimed. Reply 11 (citing Pet. 25–26). Petitioner contends that the client will refuse the download if it has the content item, otherwise, the client will accept the download. *Id.* Petitioner contends that by refusing or accepting the download offer, the client is doing something to control the flow of content in response to the server’s instruction to download the item. *Id.* Petitioner contends that the server’s attempt to download the item according to the first protocol is “a response to the content status . . . based upon the terminal status information.” *Id.* at 13–14. Petitioner contends that when the server instructs the client to download the item if the client does not have the item, the server satisfies the claimed “instructs the terminal to perform one or more actions to thereby control the flow of content to the terminal.” *Id.* at 14.

Petitioner contends that Cassin’s first protocol further describes that the client, after determining that it has the item, provides an indication to the server that it currently has the item, such that the server will offer the next item on the list. Reply 14. Petitioner contends that Cassin describes that the server responds to the indication by offering the next item in the list. *Id.* Petitioner contends that the server’s response of offering the next item describes the claimed “response to the content status that instructs the terminal to perform one or more actions to thereby control the flow of content.” *Id.*

Petitioner contends that Cassin's second protocol describes the client computer, after receiving a first list of items that the user is entitled to receive, sends a second list to the server of only those items contained in the first list that are not currently stored in the client's memory. Reply 15.

Petitioner contends that Cassin describes that the server delivers the items in the second list to the client, and the client downloads the items from the server. *Id.* Petitioner contends that the second list describes the claimed "terminal status information," and the server delivering the items in the second list describes the claimed response that instructs. *Id.*

Patent Owner argues that Petitioner's contention that the server attempting to send the content to the client instructs the client to accept or refuse the content based on whether the client already has the content is incorrect. PO Sur-Reply 3. According to Patent Owner, whether the client accepts or refuses the content is based only on whether the client already has the content. *Id.* Patent Owner contends that the server has not instructed the client to do anything. *Id.*

Patent Owner contends that Cassin's disclosure of a server attempting to deliver an item to the client does not mean that the server instructs the client to download the item. *Id.* at 4. Rather, according to Patent Owner, the server is controlling the flow of content by taking the action itself. *Id.*

Patent Owner contends that Cassin's disclosure of the server receiving an indication that the client has the item then attempting to deliver a second item does not instruct the client to accept or refuse the second item. PO Sur-Reply 9. According to Patent Owner, the server, not the terminal, performs the action of delivering the second item. *Id.*

Patent Owner contends that the server delivering items on the second list to the client according to the second protocol does not describe the client

doing anything in response. PO Sur-Reply 10. According to Patent Owner, the server, not the terminal, sends the content. *Id.*

Analysis

We agree with Petitioner and find that Cassin’s offer to download an item describes “a response . . . that instructs the terminal to perform one or more actions” as claimed. Reply 11 (citing Pet. 25–26), 13–14. Cassin discloses that the server uses the user information received from the client to query a database in the server for a list of content to which the user is entitled. Ex. 1004 ¶¶ 162, 164. Cassin discloses that the server offers an item from the list to the client for downloading. *Id.* ¶ 163 (The server offers every item on the list), ¶ 164 (The server attempts to send an item on the list). Cassin discloses that the client checks to see if it already has the item. *Id.* ¶¶ 163, 164. If the client has the item, the client refuses the download offer. *Id.* If the client does not have the item, the client accepts the download of the item and stores the item in its content repository. *Id.* Thus, the client responds to the offer to download an item from the server by (a) checking to see if it has the offered item, and (b) either refusing the download if the client has the item or accepting the download if the client does not have the item.

Therefore, we agree with Petitioner and find that “when the server offers a media item for the client to download, the server is ‘instructing the terminal to perform one or more actions to thereby control the flow of content.’” Reply 11 (citing Pet. 25–26). We agree with Petitioner that in response to the server’s offer, “the client will either ‘refuse the download’ (if it has the content) or ‘accepts the download of the media content item from the server and stores the media content in the local content repository’ (if the client does not have the content).” *Id.* (citing Ex. 1004 ¶ 163). We agree

with Petitioner and find that by checking to see if it has the item, and “by refusing or accepting the download offer, the client is doing ‘something to control the flow of content’ in response to the server’s instruction.” *Id.* (quoting PO Resp. 23).

We disagree with Patent Owner’s contentions to the contrary. In particular, we disagree with Patent Owner’s contention that the server’s offer “has not instructed the client to do anything—the client takes action based on other factors (whether or not it already has the media content item).” PO Sur-Reply 3; *see* PO Resp. 31–32; Ex. 2002 ¶¶ 91–93. We find that the client performs the actions of checking to see if it already has the item and, depending on whether it has the item, either accepting or refusing the offer, in response to receiving the offer from the server. Ex. 1004 ¶¶ 163, 164; Ex. 1003 ¶¶ 72–75. Thus, we agree with Petitioner that the server’s offer instructs the client to (a) determine whether the client has the item and (b) depending on whether the client has the item, either accept or refuse the offer, which describes “instructing the terminal to perform one or more actions to thereby control the flow of content” as claimed. We further find that, because the offered item is from the server’s list which was determined using information from the user and information from the server’s database, the offer to download the item describes “a response to the content status . . . based upon the terminal status information and the server status information” as recited in claim 1.

In addition, we also agree with Petitioner and Mr. Wechselberger that Cassin’s disclosure of the server sending or delivering the item to the client describes the claimed “response . . . that instructs” the client to download the item. *See* Reply 13–14 (citing Ex. 1004 ¶¶ 163, 164); Pet. 24–25. We disagree with Patent Owner’s arguments to the contrary. Mr. Wechselberger

testifies that when the client accepts the offer, “the server computer instructs the client computer to download the . . . item.” Ex. 1003 ¶ 74. In contrast, Dr. Goodrich testifies that “it is the server computer that is ‘sending’ the content, not the client computer taking any action.” Ex. 2002 ¶ 92; see *id.* ¶¶ 91, 93. Cassin discloses that “the client computer accepts the download of the media content item from the server computer and stores the media content in the local content repository.” Ex. 1004 ¶ 163. Even if we were to accept Dr. Goodrich’s premise that Cassin’s server performs some actions when the item is downloaded, Cassin discloses that the client performs actions when the item is downloaded, such as storing the content locally. *Id.* Therefore, we find Mr. Wechselberger’s testimony more persuasive than that of Dr. Goodrich because Mr. Wechselberger’s testimony is consistent with Cassin’s disclosure. We agree with Petitioner and Mr. Wechselberger and find that Cassin discloses that after the client accepts the offer to download the item, the server instructs the client to download and store the item, which describes the claimed “response . . . that instructs.” Ex. 1003 ¶ 74; Ex. 1004 ¶ 163.

With respect to the client refusing the offer described in Cassin’s first protocol, we agree with Petitioner, that the server’s response to the indication, which is to offer the next media item, describes the claimed “response . . . that instructs.” See Reply 14 (citing Ex. 1004 ¶¶ 164–165; Pet. 25–26). Cassin discloses that the client refuses the offer by providing an indication to the server that the client already has the item. Ex. 1004 ¶ 164. As discussed above, Cassin’s indication describes “terminal status information comprising a listing of [a] piece of content stored in the memory” of the terminal within the meaning of claim 7. In this embodiment, the server offers to download the next item on the list to the

client. *Id.* The client then accepts or refuses the download. *Id.* We find that the server's offer to the client to download the next item on the list as described by Cassin's first protocol embodiment describes the claimed "response . . . that instructs the terminal to perform" checking to see if it already has the next item and accepting or refusing the offer to download the next item "to thereby control the flow of content to the terminal" for the reasons given above.

We disagree with Patent Owner's contention to the contrary. In particular, we disagree with Patent Owner's contention that Cassin's disclosure to offer the next item on the list does not describe the claimed "response . . . that instructs." *See* PO Resp. 32–33 (citing Ex. 2002 ¶¶ 94–97). In particular, we disagree with Patent Owner's contention that the server itself takes action to send the next item, and that the client's only actions are to say whether it already has the next item. *Id.* Cassin discloses that the server "will offer the next media item on the list" and "[i]f the client computer does not have the . . . item, then . . . the client computer accepts the [] item." Ex. 1004 ¶ 164; *see id.* ¶ 163. We find that the client's actions of checking and accepting or refusing the offer describe "one or more actions to thereby control the flow of content to the terminal" as discussed above. Thus, Cassin's offer to download the next item describes "a response . . . that instructs the [client] to perform" checking to see if it has the item and accepting or refusing the offer to download the next item "to thereby control the flow of content to the terminal" as claimed. Similarly, we agree with Mr. Wechselberger and find that after Cassin's client accepts the offer, the server instructs the client to download as discussed above. Ex. 1003 ¶ 74. We disagree with Dr. Goodrich's testimony to the contrary because his testimony is inconsistent with Cassin's disclosure.

We also disagree with Patent Owner's contention that Cassin's disclosure of the server not delivering the item to the client does not describe "a response . . . that instructs" the client to perform an action because the act of not delivering the item, similar to the act of delivering the item, is performed by the server not the client. *See* PO Resp. 34. We find that the client's actions include accepting or refusing the offer to download, which the client performs because of the offer to download as discussed above. We agree with Petitioner that when the client refuses the offer to download, the client is performing one or more actions to control the flow of content to the client because the action of refusing results in the server not delivering the item to the client. *See* Pet. 25; Ex. 1004 ¶¶ 163, 164. Thus, the server's offer describes "a response . . . that instructs" the client to perform the action of refusing the download when the client has the download within the meaning of claim 1.

With respect to Cassin's second protocol embodiment that sends items from the second list to the client, we agree with Petitioner that the client accepting and storing the download of items from the second list describes the claimed "response . . . that instructs." Reply 15 (citing Ex. 1004 ¶¶ 163, 166; Pet. 26). Cassin discloses that the server computer sends a first list of content available at the server to which the client is entitled. Ex. 1004 ¶ 166. Cassin discloses that the client computer identifies those items on the first list that it does not already have, and sends a second list of only those items to the server. *Id.* Cassin discloses that the server delivers the items from the second list to the client. *Id.* We agree with Petitioner and find that Cassin's second list describes the claimed "terminal status information" as discussed above. *See* Reply 15. We agree with Petitioner and find that Cassin's server delivering the items on the second list to the client describes the server

instructing the client to download the items as discussed above. *See* Reply 15; Ex. 1003 ¶ 74. We disagree with Patent Owner’s contention that the client, in this embodiment, does not take action to control the flow of content to the client. *See* PO Resp. 34–35 (citing Ex. 2002 ¶ 99). Rather, we find that the client, by performing the actions of accepting and storing the download of items, “perform[s] one or more actions to thereby control the flow of content to the terminal.” Therefore, we find that this embodiment also describes the claimed “response . . . that instructs.”

We find that Petitioner has shown that Cassin discloses this limitation of claim 1.

“Content . . . Comprise Multimedia Content”

Claim 1 recites “wherein the at least one piece of content available from the source, and the content for which the processor is configured to control the flow, comprise multimedia content.” Petitioner contends Cassin discloses this limitation in describing a server computer’s database and a client computer’s local content repository each configured to store multimedia content including music, videos, and multimedia programming. Pet. 27 (citing Ex. 1004 ¶¶ 146, 151, 152, 156). Patent Owner does not contend otherwise. *See generally* PO Resp. We find that Petitioner has shown that Cassin discloses this limitation of claim 1.

For the foregoing reasons, we determine that Petitioner establishes by a preponderance of the evidence that Cassin anticipates claim 1.

3. Independent Claims 7, 13, and 19

Independent claims 7, 13, and 19 recite limitations similar to those recited in claim 1, with the exception of “a content status including terminal status information comprising a listing of at least one piece of content stored in the memory” recited in claims 7, 13, and 19. The Petition contends that

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Cassin discloses “a content status including terminal status information comprising a listing of at least one piece of content stored in the memory” as recited in claims 7, 13, and 19 for the reasons given in the Petition’s analysis of claim 1. Pet. 19–23. In its Response, with respect to claims 7, 13, and 19, Patent Owner presents separate contentions only for the “content status” limitations, which Petitioner addresses in its Reply. PO Resp. 39–42; Reply 4–7; *see* PO Sur-Reply 13–15.

Given that Petitioner and Patent Owner rely on their contentions presented for claim 1 to address the limitations recited in claims 7, 13, and 19, with the exception of the “content status” limitation, we find that Cassin describes the limitations of claims 7, 13, and 19 for the reasons given in our analysis of claim 1, with the exception of the “content status” limitation, which we address below. *See* Pet. 18–27; PO Resp. 19–39; Reply 7–18; PO Sur-Reply 1–13.

Summary of the Contentions of the Parties

Patent Owner contends that Cassin’s indication that a client currently has the media content item stored does not disclose “a listing of at least one piece of content stored in the memory” as claimed. PO Resp. 39–40 (citing Ex. 2002 ¶ 109). Patent Owner contends that Cassin does not disclose what is included in the indication. *Id.* at 40. Patent Owner contends that the indication could be a message that says “no,” which does not describe a listing of a piece of content. *Id.* at 40–41 (citing Ex. 2003, 32:13–19, 34:21–35:2; Ex. 2002 ¶¶ 110–111); PO Sur-Reply 13–14. Patent Owner contends that claim 132 of Cassin, which describes a second indication that includes a second list including a second media content item, and dependent claim 133, which describes that the second media content item is an item that a remote device will accept, does not mean that the second indication of claim 132

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describes a listing of a media content item stored in the memory of the remote device. PO Resp. 41–42 (citing Ex. 2002 ¶ 112); PO Sur-Reply 14–15.

Petitioner contends that although Cassin does not define the parameters of the indication, and that information such as a message that says “no” could possibly define the indication, Cassin’s indication describes the “listing of at least one piece of content stored in the memory” of the terminal as claimed. Reply 6–7. Petitioner also contends that claims 130–133 of Cassin disclose the claimed listing because claim 133 of Cassin narrows claim 132. *Id.* at 5. Petitioner contends that claim 133 describes a list of items that are not stored on the client computer, therefore, the list of media content items of claim 132 is a list of items that are stored on the client computer. *Id.*

Analysis

Patent Owner is correct in stating that Cassin does not describe what is included in the indication. *See* PO Resp. 40. However, the ’559 patent does not describe what is included in the claimed “listing.” Rather, throughout the disclosure of the ’559 patent, the phrase “the listing of one or more pieces of content stored in memory” or a variation thereof is repeated without any further elaboration. Ex. 1001, 3:13–15, 3:26–36, 12:22–26, 12:50–52, 13:29–30. For example, the Specification does not disclose that the listing of one piece of content includes the title of the piece of content, nor an identification number of the piece of content, nor any other information about the piece of content. The disclosed listing is no more than an item of information that indicates that a specific piece of content is stored in the memory of the terminal. Therefore, the plain and ordinary meaning of the claim term “a listing of one . . . piece[] of content stored in the memory,”

read in light of the Specification of the '559 patent, encompasses an item of information that indicates that a specific piece of content is stored in the memory of the terminal. We agree with Petitioner and find that Cassin's indication that the client currently has the media content item describes an item of information that indicates that a piece of content is stored in the memory of the terminal. Therefore, Cassin's indication that the client currently has the media item describes "a listing of one . . . piece[] of content stored in the memory" as claimed.

We also agree with Petitioner that claims 130–133 of Cassin also describe the claimed "listing." We agree with Petitioner that dependent claim 133 of Cassin is narrower than claim 132. Claim 132 of Cassin describes "a second list of a second group of media content items." Dependent claim 133 describes "said second group of media content items being a group of media content items that the remote device will accept." Given that Cassin discloses that the remote device will accept items only if the device does not already have the items (Ex. 1004 ¶¶ 12, 133, 135, 163–167), we find that the second list of claim 133 is a list of items that the device does not have. This means that Cassin's second list recited in claim 132 excludes dependent claim 133's list of items that the device does not have. *See Phillips*, 415 F.3d at 1314–15 ("For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."). Therefore, we agree with Petitioner and find that the second list of claim 132 describes items that the device already has. We find that claims 130–133 of Cassin describe "a listing of at least one piece of content stored in the memory" of the terminal as claimed.

We find that Petitioner has shown by a preponderance of the evidence that Cassin anticipates claims 7, 13, and 19.

4. Claims 2, 8, 14, and 20

Claim 2 depends from claim 1 and recites “wherein the terminal comprises a memory, and wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to at least one of delete at least one piece of content from the memory of the terminal, or download at least one piece of content from the source.” Petitioner contends Cassin describes that the local content repository of the client computer is a memory. Pet. 28 (citing Ex. 1004 ¶ 156, Fig. 6). Petitioner contends that Cassin describes that the server uses information in the indication received from the client computer to instruct the client computer to download a media file from the server. *Id.* at 28–29 (citing Ex. 1004 ¶¶ 164, 166).

Claims 8, 14, and 20 recite limitations similar to those recited in claim 2. For claims 8, 14, and 20, Petitioner relies on its contentions presented for claim 2. Pet. 28–29. Patent Owner does not separately argue dependent claims 2, 8, 14, and 20; therefore, these claims fall together with the corresponding independent claims. *Incept LLC v. Palette Life Sciences, Inc.*, 77 F.4th 1366, 1375 (Fed. Cir. 2024).

We find that Petitioner has shown by a preponderance of the evidence that Cassin anticipates claims 2, 8, 14, and 20 for the reasons given in the Petition.

5. Claims 4, 10, 16, and 22

Claim 4 depends from claim 2 and recites “wherein the server status information comprises a listing of at least one piece of available content from the source, and wherein the processor is configured to send, to the

terminal, a response to the content status that instructs the terminal to download at least one piece of content from the source based upon the listing of at least one available piece of content from the source.” Petitioner contends that Cassin discloses the “server status information comprising a listing of at least one piece of available content from the source” in describing a listing of all content from the first content repository to which the user is entitled. Pet. 30 (citing Ex. 1004 ¶¶ 146, 164, 166, Figs. 8 and 9). Petitioner contends that Cassin discloses that the server, based on the indication from the client computer, is configured to deliver content to the client computer by instructing the client to download at least one media file from the content repository that was identified in the listing. *Id.*

Claims 10, 16, and 22 recite limitations similar to those recited in claim 4. For claims 10, 16, and 22, Petitioner relies on its contentions presented for claim 4. Pet. 29–31. Patent Owner does not separately argue dependent claims 4, 10, 16, and 22; therefore, these claims fall together with the corresponding independent claims.

We find that Petitioner has shown by a preponderance of the evidence that Cassin anticipates claims 4, 10, 16, and 22 for the reasons given in the Petition.

6. Summary for Anticipation by Cassin

We find that Petitioner has shown by a preponderance of the evidence that Cassin anticipates claims 1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, and 22.

C. Claims 1–24 As Obvious Over Cassin and Huston

1. Huston – Exhibit 1005

Huston relates to an approach for managing and providing content to users. Ex. 1005, 1:13–15. Figure 2A of Huston is shown below.

FIG. 2A 200
↓

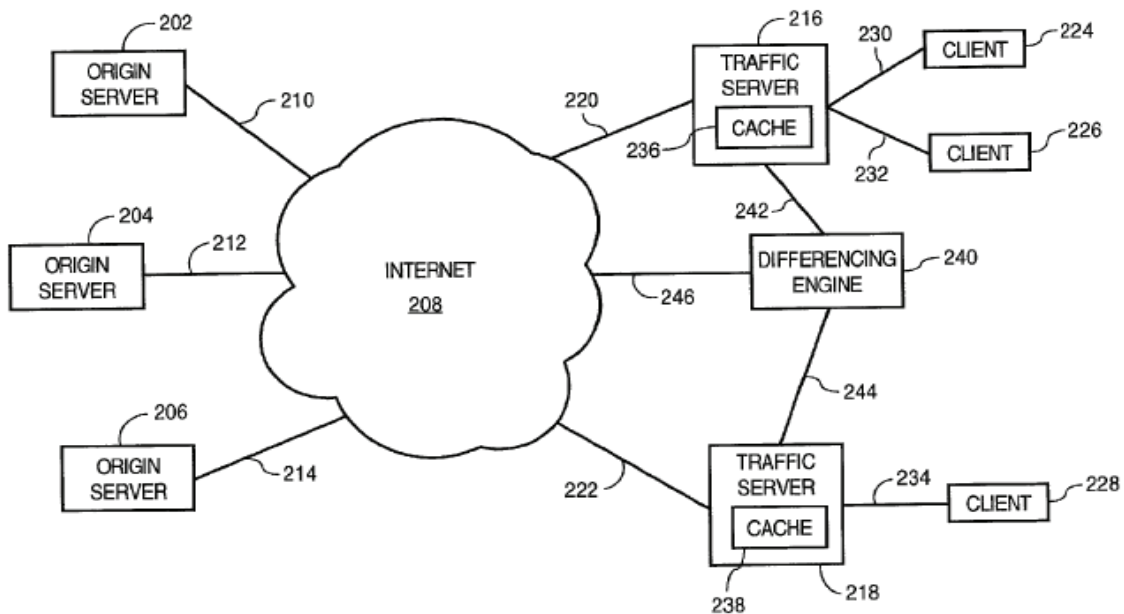


Figure 2A above illustrates a block diagram of an arrangement for managing and providing content to users over a communications link. Ex. 1005, 5:42–44. Huston’s system includes a differencing engine that is coupled to traffic servers and to the Internet. *Id.* at 6:15–18, Fig. 2A. The system also includes a set of origin servers that “host content from one or more content providers.” *Id.* at 5:44–46.

The traffic servers are configured with caches that provide local storage for content. *Id.* at 6:1–5. The “differencing engine 240 is configured to selectively cause content to be deleted from the traffic servers 216, 218 and/or replaced with newer versions of the deleted content from origin servers.” *Id.* at 6:18–25. The differencing engine may select “content to be deleted by comparing versions of content stored on caches 236, 238 to versions of the corresponding content stored on origin servers.” *Id.* at 6:44–48. The differencing engine may request information about versions of

data stored on the origin servers that are also stored on the traffic servers in order to determine differences between the content. *Id.* at 6:66–7:5.

2. *Reasons to Combine the Teachings of Cassin and Huston*

Petitioner contends that Cassin teaches a need to manage how long delivered media content items remain available to a user. Pet. 32–33 (citing Ex. 1004 ¶ 182). Petitioner contends that Huston teaches an example of a media content item that should not remain available in describing a media content item that is not the most recent version and is therefore stale. *Id.* at 33 (citing Ex. 1005, 37–44). Petitioner contends that Huston teaches a solution to this problem in describing a technique for managing and providing content items to users that includes automatically deleting stale versions of content items and storing the newer versions on the client. *Id.* (citing Ex. 1003 ¶ 204; Ex. 1005, Abstract; *see id.* at 4:21–29). Petitioner contends that a person of ordinary skill in the art would have addressed Cassin’s need to manage how long the delivered content items remain available using Huston’s technique for managing and providing content items to users for the benefit of automatically deleting stale versions of content items and storing the newer versions on the client as taught by Huston. Pet. 34–35 (citing Ex. 1004 ¶¶ 110, 178, 180, 182; Ex. 1005, Abstract, 3:37–44; Ex. 1003 ¶ 204).

Petitioner contends that a person of ordinary skill in the art would have had a reasonable expectation of success in combining the teachings of Cassin and Huston because modifying Cassin’s server to include Huston’s function of sending delete commands to delete content items stored in a client computer is simply using Huston’s known technique of deleting content items using a delete command to improve Cassin’s device in the same way. Pet. 35–36 (citing Ex. 1003 ¶ 204; *KSR*, 550 U.S. at 415–16).

Petitioner contends that replacing Cassin's manual delete command with Huston's automatic delete command would have required no more than ordinary skill because the combination would have been the simple addition of Huston's delete function to achieve the predictable result of automatically deleting content. *Id.*

We agree with Petitioner and Mr. Wechselberger and find that replacing Cassin's manual delete command with Huston's automatic delete command is the mere substitution of one element of Cassin's known delete command for another known in the field that does no more than yield the predictable result of automatically deleting stale content items as taught by Huston. *KSR*, 550 U.S. at 416. We agree with Petitioner and Mr. Wechselberger that Huston's technique of deleting content has been used to improve Huston's device by providing the benefit of automatically removing stale content. We also agree that a person of ordinary skill in the art would have recognized that it would improve Cassin's device in the same way, and that applying the technique of automatically deleting content in Cassin's system is not beyond the level of ordinary skill. *Id.* at 417. Rather, it is the predictable use of prior art elements according to their established functions. *Id.* We find that a person of ordinary skill in the art would have had a reason to combine the teachings of Cassin and Huston, and would have had a reasonable expectation of success in doing so.

Patent Owner presents arguments against Petitioner's reasons to combine and expectation of success in its analysis of claim 3. *See* PO Resp. 49–51. We disagree with Patent Owner, and address those arguments in our analysis of claim 3 below.

3. *Claims 1, 7, 13, and 19*

The Petition's Contentions

Petitioner contends that Cassin discloses the limitations of claims 1, 7, 13, and 19 for the reasons given in its analysis of ground 1. Pet. 36–42. Petitioner further contends that the combination of Cassin and Huston teaches “a processor configured to receive, from a terminal located remote from the apparatus, a content status including terminal status information.” *Id.* at 38–40. Petitioner contends that a person of ordinary skill would have understood that the differencing engine of Huston, in order to compare different versions of content, would receive an identification of the versions stored on the caches, or “content status including terminal status information” as claimed, from the traffic servers, which are remote to the differencing engine. *Id.* at 39–40 (citing Ex. 1005, Fig. 2A, 6:1–5, 6:42–51, 7:38–49, 16:12–29).

Summary of the Subsequent Contentions of the Parties

Patent Owner’s contentions regarding the combination of Cassin and Huston are directed mainly to the “content status” limitation of independent claims 7, 13, and 19. In particular, Patent Owner contends that the indication of Cassin does not disclose the claimed “terminal status information comprising a listing of at least one piece of content stored in the memory,” because Cassin does not disclose what data is in its indication. PO Resp. 45. Patent Owner contends that a person of ordinary skill in the art would have understood that the indication should contain as little data as possible in order to increase speed and decrease memory. *Id.* (citing Ex. 2002 ¶¶ 111, 120). According to Patent Owner, the data contained in the indication could be the word “no.” *Id.*

Patent Owner contends that Huston also does not disclose the claimed “terminal status information comprising a listing of at least one piece of content stored in the memory,” because the differencing engine of Huston

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would already be aware of what content is on the traffic server. PO Resp. 46–47 (citing Ex. 2002 ¶¶ 123–124). Therefore, according to Patent Owner, the differencing engine has no need to receive terminal status information including a listing of content stored in the traffic server. *Id.*

Petitioner contends that Mr. Wechselberger testifies that the first protocol of Cassin describes an indication sent by the client to the server comprising a listing of at least one piece of content stored in its repository, which describes the “terminal status information comprising a listing.” Reply 18–19 (citing Ex. 1003 ¶¶ 159–160; Ex. 1004 ¶ 164). Petitioner contends that Mr. Wechselberger testifies that the second protocol also discloses sending a listing of files that the client does not have, and that it would have been obvious for a person of ordinary skill in the art, considering the second protocol in light of Cassin’s indication from the first protocol, to try sending a listing of files that the client does have. *Id.*

Petitioner contends that the combination of Cassin and Huston also teaches the claimed “terminal status information comprising a listing.” Reply 19 (citing Ex. 1003 ¶ 161). Petitioner contends that Huston discloses that the differencing engine selects content to be deleted in the cache of the traffic server by comparing versions of content stored on the cache to versions stored on the origin servers. *Id.* (citing Ex. 1005, 6:45–48). Mr. Wechselberger testifies that a person of ordinary skill in the art would have understood that the differencing engine would receive an identification of the versions of content stored on the caches in order to make that comparison. *Id.* (citing Ex. 1003 ¶ 161). Petitioner contends that Huston discloses that the differencing engine may be located apart from the origin server and the traffic server as shown in Figure 2A. *Id.* at 20. Petitioner contends that in this case, it would have been obvious to a person of ordinary

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skill in the art that the differencing engine would get information about the content of the traffic server's cache by asking the device that has the information, namely, the traffic server, to provide the information. *Id.* (citing Ex. 2003, 53:12–15).

Patent Owner contends that Dr. Goodrich testifies that a person of ordinary skill would have understood that Cassin's indication should contain as little information as possible and that it would not be obvious to add additional unnecessary information such as a listing of a piece of content. PO Sur-Reply 16 (citing PO Resp. 44–45). Patent Owner contends that Huston does not disclose or suggest that the differencing engine receives an identification of the versions of stored content stored on the cache of the traffic server. *Id.* at 17. Petitioner contends that Huston discloses an embodiment in which the differencing engine would already be aware of the content on the traffic server, and that there is no basis to assume that a person of ordinary skill in the art would come up with an alternative embodiment in which the differencing engine receives information from the traffic server. *Id.* at 17–18 (citing Ex. 1003 ¶ 41; Ex. 2003, 53:16–54:5).

Analysis

Given that the contentions of the parties are directed to the “content status” limitation of claims 7, 13, and 19, and given that the scope of the “content status” limitation of claim 1 encompasses the “terminal status information comprising a listing” recited in claims 7, 13, and 19, we address the contentions of the parties using claim 7 as the representative claim.

We agree with Petitioner that the indication of Cassin described in paragraph 164, sent from the client to the terminal, describes the “terminal status information comprising a listing” of content stored in the memory of the terminal as recited in claim 7 for the reasons given in our analysis of the

anticipation ground. We also agree with Petitioner that the second list of claim 132, read in the context of claims 130–133, discloses the client sending to the server a list of media content items that the device does have for the reasons given in our analysis of the anticipation ground. We disagree with Patent Owner’s contentions to the contrary regarding Cassin’s indication of paragraph 164 and second list of claim 132 for the reasons given in our analysis of the anticipation ground. We find that Cassin’s indication, as well as claim 132 of Cassin, describe the claimed “listing.”

In addition, we agree with Petitioner that modifying Cassin’s second protocol that identifies a list of content that the client does not have as taught by paragraph 166, to identify a list of content that the client does have as taught by the indication of paragraph 164 as well as the second list of claim 132, “simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement.” *See* Reply 18–19; *KSR*, 550 U.S. at 417. Therefore, we find that Cassin alone teaches “terminal status information comprising a listing” as recited in claim 7.

We also agree with Petitioner that the combination of Cassin and Huston teaches “terminal status information comprising a listing” as recited in claim 7. Huston discloses that the differencing engine selects content to be deleted by comparing versions of content stored on the caches of the traffic servers to versions of corresponding content stored on the origin servers. Ex. 1005, 6:42–51, Fig. 2A. We agree with Mr. Wechselberger that a person of ordinary skill in the art would have understood that the differencing engine would receive an identification of the versions of the content stored on the caches of the traffic servers from the traffic servers,

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which are remote from the differencing engine, in order to make that comparison. Ex. 1003 ¶ 161 (citing Ex. 1005, 6:42–51, Fig. 2A).

Patent Owner disagrees, contending that Huston discloses an embodiment in which the differencing engine is co-located with, or at least communicatively coupled to, the origin servers. PO Resp. 46 (citing Ex. 1005, 7:38–49). Patent Owner, relying on the testimony of Dr. Goodrich, contends that in this embodiment, the differencing engine would already be aware of what content is on the traffic servers when the origin server transmits content to the traffic server and thus would not need to obtain a listing of the information stored in the caches of the traffic servers. *Id.* at 46–47 (citing Ex. 2002 ¶¶ 123–124); PO Sur-Reply 17. However, Petitioner relies on the embodiment of Huston in which the differencing engine is not co-located with the origin servers, but rather, is located apart from the origin servers and traffic servers as shown in Figure 2A. Reply 20 (citing Ex. 1005, 7:38–49, Fig. 2A). Mr. Wechselberger testifies that when the differencing engine is located apart from the traffic servers and origin servers, it would need to receive an identification of the versions of content stored on the caches of the traffic servers. Ex. 1003 ¶ 161. Mr. Wechselberger testifies that, in this embodiment, Huston discloses a direct communication line between the differencing engine and the traffic server, and that it would have been obvious for the differencing engine to get information about the versions of content stored on the traffic server by using the direct communication line to ask the traffic server for the information. Ex. 2003, 53:9–15. Patent Owner has not addressed Huston’s embodiment of a differencing engine located apart from the origin servers and traffic servers as shown in Figure 2A.

We agree with Mr. Wechselberger that a person of ordinary skill would have understood that the differencing engine in Huston's embodiment shown in Figure 2A, which is located apart from the origin servers and the traffic server, needs information about versions of data stored on the remote traffic server in order to determine the differences between content stored on the remote traffic server and the remote origin servers. Ex. 1003 ¶ 161. We agree that in this embodiment, the differencing engine would not be aware of the versions of content stored on the remote traffic servers. Ex. 2003, 56:6–9. In fact, in this embodiment, the differencing engine would not even be aware of the versions of content stored on the remote origin servers, as shown by the need for the differencing engine to request such information from the remote origin servers. Ex. 1005, 6:66–7:5. Given the conflicting testimony between Dr. Goodrich and Mr. Wechselberger about whether the differencing engine would be aware of content stored on the remote traffic server, we find Mr. Wechselberger's testimony more persuasive because it is consistent with the teachings of Huston.

We agree with Mr. Wechselberger that a person of ordinary skill in the art would have caused the differencing engine to receive information about content stored on the remote traffic server by asking the remote traffic server for information about the versions of content stored on the traffic server for the benefit of comparing versions of content on the origin servers with the versions on the traffic server. Ex. 2003, 53:9–15. Although Huston does not explicitly describe that the differencing engine requests information from the remote traffic server about versions of data stored on the traffic server, Huston gives an example of the differencing engine requesting, from the remote origin servers, information about versions of content stored on the remote origin servers. Ex. 1005, 6:66–7:5, Fig. 2A. Thus, Huston

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teaches that when the differencing engine needs information about content stored on a remote device, the differencing engine receives the needed information from the remote device that has the needed information. *See id.*; *KSR*, 550 U.S. at 418 (A “court can take account of the inferences and creative steps that a person of ordinary skill would employ.”). In addition to Huston’s teaching, Cassin also teaches that the technique of a server receiving information from a remote server about the content stored on the remote server was known to a person of ordinary skill in the art. Ex. 1004 ¶¶ 164, 166, claims 130–133.

Given that, in the embodiment of Figure 2A of Cassin, the differencing engine needs information about versions of content stored on the remote origin servers and the remote traffic server in order to compare the versions of content, and given that receiving information about the versions of content stored on a remote server from the remote server was known in the art, we agree with Mr. Wechselberger that a person of ordinary skill in the art would have satisfied the differencing engine’s need to have information about the versions of content stored on the remote traffic server by using the known technique of receiving the needed information from the remote server that has the needed information, in this case, the traffic server. Ex. 1003 ¶ 161; Ex. 1004 ¶¶ 164, 166, claims 130–133; Ex. 1005, 6:42–51, 6:66–7:5, Fig. 2A; *KSR*, 550 U.S. at 417. That is, a person of ordinary skill in the art would have caused the differencing engine of Huston to receive information about versions of content stored on the remote traffic server using the known technique of receiving the information from the remote server that has the needed information as taught by both Huston and Cassin for the benefit of deleting stale content on the traffic server as taught by Huston. We find that the combination of Cassin and Huston teaches “a

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content status including terminal status information comprising a listing of at least one piece of content stored in the memory” as recited in claim 7.

We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 1, 7, 13, and 19.

4. Claims 2, 8, 14, and 20

Petitioner contends that Cassin discloses the limitations of claims 2, 8, 14, and 20 for the reasons given in its analysis of ground 1. Pet. 42–43. Patent Owner disagrees for the reasons given in Patent Owner’s analysis of claim 3, which we address below. PO Resp. 47.

We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 2, 8, 14, and 20.

5. Claims 3, 9, 15, and 21

Claim 3 depends from claim 2 and recites “wherein the terminal status information comprises a listing of at least one piece of content stored in the memory of the terminal, and wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to delete at least one piece of content from the memory of the terminal based upon the listing of at least one piece of content stored in the memory of the terminal.”

The Petition’s Contentions

Petitioner contends that Cassin discloses a user manually deleting media content from the remote client device. Pet. 44 (citing Ex. 1004, Figs. 12–14, ¶¶ 169, 171). Petitioner contends that Cassin teaches that a user may have access to a particular media content item for a predetermined period of time, such as a single day. *See id.* at 45 (citing Ex. 1004 ¶ 182). Petitioner

contends that a person of ordinary skill in the art would have used Huston's technique of automatically deleting content to yield the benefits of deleting expired or stale content from the client computer, and doing so automatically instead of manually. *Id.* at 45–46 (citing Ex. 1004 ¶ 169; Ex. 1005, 6:33–51).

Summary of the Subsequent Contentions of the Parties

Patent Owner contends that the differencing engine of Huston issues a delete command in response to detecting new content in the origin server, not in response to terminal status information, because the differencing engine does not receive terminal status information from the traffic server. PO Resp. 48–49 (citing Ex. 2002 ¶¶ 128–129). Patent Owner contends that Cassin's disclosure of manually deleting content teaches away from a server instructing the terminal to delete content. *Id.* at 49 (citing Ex. 2002 ¶ 129). Patent Owner contends that adding a delete command to Cassin is contrary to Cassin's intended purpose of providing non-duplicative content to the terminal. *Id.* at 50 (citing Ex. 2002 ¶ 130). Patent Owner contends that Cassin describes that the server can send content to the client, but does not describe a mechanism to send instructions to the client. *Id.* at 50–51 (citing Ex. 2002 ¶¶ 129–130). According to Patent Owner, a person of ordinary skill in the art would not have had a reasonable expectation of success in combining the teachings of Cassin and Huston. *Id.*

Petitioner contends that Huston discloses that the differencing engine may select content to be deleted by comparing versions of content stored on the traffic server's cache to versions of the corresponding content stored on the origin server. Reply 21 (citing Ex. 1005, 6:42–48). Petitioner contends that comparing versions stored on the traffic server's cache to versions stored on the origin server would necessarily involve “a listing of at least

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one piece of content stored in the memory” of the terminal as claimed. *Id.* at 22 (citing Ex. 1003 ¶¶ 143, 179).

Petitioner contends that Cassin does not teach away from instructing the terminal to delete an item of content because Cassin does not discourage or criticize the server sending a delete command to the client. Reply 22–23. Petitioner contends that combining Cassin’s server with Huston’s delete command allows Cassin to provide its advantage of managing how long content remains available to users with Huston’s technique of ensuring that media content is no longer available to a particular user. *Id.* at 23 (citing Ex. 1004 ¶¶ 178, 180, 182; Ex. 1003 ¶ 204). Petitioner contends that Cassin itself contradicts Patent Owner’s contention that adding a delete command to Cassin’s server is contrary to Cassin’s intended purpose because Cassin includes a delete command. *Id.* Petitioner contends that modifying Cassin to send Huston’s delete command from the server would have been obvious and straightforward, would have required no more than ordinary skill, and could have been achieved with a reasonable expectation of success. *Id.* at 24 (citing Ex. 1003 ¶ 205).

Patent Owner contends that Huston discloses that the differencing engine compares versions of content stored on the traffic server with versions stored on the origin server when the differencing engine receives information from the origin server, not from the traffic server. PO Sur-Reply 18–19 (citing Ex. 1005, 6:42–7:9). Patent Owner contends that comparing versions of content stored on the traffic server to versions stored on the origin server would not necessarily be based on the content status received from the traffic server. *Id.* at 20–21. Patent Owner contends that Cassin does not teach managing how long media content items remain available to users, and that Cassin discloses manually deleting content, not

the server deleting content on the terminal. *Id.* at 21. Patent Owner contends that there is no mechanism in Cassin for issuing instructions, and therefore a person of ordinary skill in the art would not have had a reasonable expectation of success in adding Huston's delete command. *Id.*

Analysis

We disagree with Patent Owner's contention and Dr. Goodrich's testimony that Huston does not teach this limitation because "Huston does not disclose receiving content status from the terminal at all." PO Resp. 49 (citing Ex. 2002 ¶¶ 128, 129). We agree with Petitioner that Huston discloses that the differencing engine decides to delete content by comparing versions of content stored on the caches of the traffic server with versions stored on the origin servers. Reply 21–22 (citing Ex. 1005, 6:42–48). We agree with Mr. Wechselberger that, in order for Huston's differencing engine to delete content by comparing the versions stored on the origin servers with the versions stored on the traffic server, a person of ordinary skill in the art would have understood that the differencing engine receives a listing of content, or "content status," from the traffic server. Ex. 1003 ¶ 161 (citing Ex. 1005, 6:42–51); *see id.* ¶¶ 143, 151–153, 179. Therefore, we agree with Petitioner that the combination of Cassin and Huston teaches "a response to the content status that instructs the terminal to delete at least one piece of content from the memory of the terminal based upon the listing of at least one piece of content stored in the memory of the terminal" as claimed.

We disagree with Patent Owner that replacing Cassin's manual delete command with Huston's automatic delete command would be contrary to Cassin's intended purpose of providing non-duplicative content to a terminal. *See* PO Resp. 50; PO Sur-Reply 21. Rather, we agree with Petitioner that Cassin's disclosure of deleting content manually does not

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criticize, discredit, or otherwise discourage Huston’s approach of the server automatically sending delete commands to the client computer. Reply 22–23; *see In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). We find that Cassin’s disclosure of a delete command is consistent with, not contrary to, providing non-duplicative content. Ex. 1004 ¶ 169; *see In re Urbanski*, 809 F.3d 1237, 1244 (Fed. Cir. 2016) (“Nothing in the prior art teaches that the proposed modification would have resulted in an ‘inoperable’ process.”). We agree with Petitioner that replacing Cassin’s manual delete command with Huston’s automatic delete command would improve Cassin’s device in the same way, namely, by automating the delete process. Pet. 23–24; *KSR*, 550 U.S. at 417.

We agree with Petitioner that a person of ordinary skill in the art would have been able to modify the server in Cassin to send an instruction to invoke a delete command on the client. Reply 24 (citing Ex. 1003 ¶ 205). We agree with Mr. Wechselberger that this modification would have been straightforward and within the level of ordinary skill because this modification is simply adding Huston’s known technique of deleting content to Cassin’s server to yield the predictable result of a server that sends an instruction to invoke a delete command on the client. Ex. 1003 ¶ 205. We disagree with Patent Owner’s contention and Dr. Goodrich’s testimony that Cassin does not disclose a mechanism to send instructions to the client computer. PO Resp. 50–51 (citing Ex. 2002 ¶ 129). First, we find that Cassin discloses a client receiving an offer from the server to download content, which describes a “response . . . that instructs the client to perform one or more actions” as discussed in our analysis of the anticipation ground. We also agree with Petitioner that Cassin discloses that after the client accepts the offer, the server instructs the client to download content. *See*

Reply 24. Second, Patent Owner’s contention that Cassin does not disclose a mechanism for sending a delete command from the server to the client does not address Petitioner’s contention that Huston discloses such a mechanism. Given the conflicting testimonies of Dr. Goodrich and Mr. Wechselberger, we find Mr. Wechselberger’s testimony more persuasive because it is consistent with the teachings of Cassin and Huston.

We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claim 3. Claims 9, 15, and 21 recite limitations similar to those recited in claim 3. For claims 9, 15, and 21, the parties rely on their contentions presented for claim 3. Pet. 43–46; PO Resp. 47–51. We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 9, 15, and 21.

6. Claims 4, 10, 16, and 22

Petitioner contends that Cassin discloses the limitations of claims 4, 10, 16, and 22 for the reasons given in its analysis of ground 1. Patent Owner does not provide arguments to the contrary.

We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 4, 10, 16, and 22.

7. Claims 5, 11, 17, and 23

Claim 5 depends from claim 2 and recites “wherein the processor is configured to determine if the memory of the terminal includes at least one piece of content to delete, and wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to delete at least one piece of content when the processor determines that the memory of the terminal includes at least one piece of content to delete.”

Petitioner contends that a person of ordinary skill in the art would have implemented the automatic delete feature of Huston to delete content from the client computer. Pet. 48–49 (citing Ex. 1003 ¶¶ 49–153, 169, 187, 197).

Claims 11, 17, and 23 recite limitations similar to those recited in claim 5. For claims 11, 17, and 23, Petitioner relies on its contentions presented for claim 5. *Id.* at 46–49. Patent Owner disagrees for the reasons given in Patent Owner’s analysis of claim 3. PO Resp. 47–51. We are persuaded that the Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 5, 11, 17, and 23.

8. *Claims 6, 12, 18, and 24*

Claim 6 depends from claim 5 and recites “wherein the processor is further configured to determine if source includes at least one available piece of content for the terminal to download, and wherein the processor is configured to send, to the terminal, a response to the content status that instructs the terminal to download at least one available piece of content when the processor determines that the source includes at least one available piece of content for the terminal to download.” Petitioner contends that Cassin discloses this limitation in describing the server determining a media content item available for download, offering the media content item to the client computer, and the client downloading the media content item if the client does not have the item. Pet. 49–51 (citing Ex. 1003 ¶¶ 154–55, 170–72, 188–89, 198–200).

Claims 12, 18, and 24 recite limitations similar to those recited in claim 6. For claims 12, 18, and 24, Petitioner relies on its contentions presented for claim 6. *Id.* Patent Owner does not provide arguments to the contrary. We are persuaded that Petitioner has shown by a preponderance of

the evidence that the combination of Cassin and Huston renders obvious claims 6, 12, 18, and 24.

9. Summary for Obvious Over Cassin and Huston

We are persuaded that Petitioner has shown by a preponderance of the evidence that the combination of Cassin and Huston renders obvious claims 1–24.

D. Claims 1–24 As Obvious Over Huston

1. Claims 1, 7, 13, and 19

Petitioner contends that Huston teaches the limitations of claim 1 in disclosing a differencing engine that receives content available on origin servers and controls the flow of content to the caches on traffic servers by comparing the versions of content stored on the caches of the traffic servers with the versions stored on the origin servers, and deleting content from the traffic servers based on the comparison. Pet. 51–54 (citing Ex. 1003 ¶¶ 207–13). Petitioner contends that a person of ordinary skill would have understood that the information sent from the origin servers to the differencing engine teaches the claimed “listing of at least one piece of content available from the source.” *Id.* at 53. Petitioner contends that the communication identifying versions of content stored on the caches received by the differencing engine from the traffic servers teaches the claimed “content status including terminal status information comprising a listing of at least one piece of content stored in memory.” *Id.* Petitioner contends that Huston teaches the limitations of claims 7, 13, and 19 for the reasons given in its analysis of claim 1. *Id.* at 51–54.

Patent Owner contends that Huston alone does not render claims 1, 7, 13, and 19 obvious for the reasons given in Patent Owner’s previous arguments. PO Resp. 51–53.

2. *Claims 2, 8, 14, and 20*

Petitioner contends that Huston teaches the limitations of claim 2 in disclosing a differencing engine that causes content to be deleted from the traffic servers by issuing a delete command, and that retrieves new content from the origin servers and stores the new content on the traffic servers. Pet. 54–55 (citing Ex. 1003 ¶¶ 214–216). Petitioner contends that Huston teaches the limitations of claims 8, 14, and 20 for the reasons given in Petitioner’s analysis of claim 2. *Id.*

Patent Owner contends that Huston alone does not render claims 2, 8, 14, and 20 obvious for the reasons given in Patent Owner’s previous arguments. PO Resp. 51–53.

3. *Claims 3, 9, 15, and 21*

Petitioner contends that Huston teaches the limitations of claim 3 in disclosing a differencing engine that causes content to be deleted from traffic servers by comparing versions of content stored in cache of the traffic servers with versions of content stored in the origin servers and issuing a delete command based on the comparison to the traffic servers. Pet. 55–56 (citing Ex. 1003 ¶¶ 217–218). Petitioner contends that Huston teaches the limitations of claims 9, 15, and 21 for the reasons given in Petitioner’s analysis of claim 3. *Id.*

Patent Owner contends that Huston alone does not render claims 3, 9, 15, and 21 obvious for the reasons given in Patent Owner’s previous arguments. PO Resp. 51–53.

4. *Claims 4, 10, 16, and 22*

Petitioner contends that Huston teaches the limitations of claim 4 in disclosing that the differencing engine receives new information on new content from the origin servers, and instructs the traffic servers to download

the new content based on the new content information. Pet. 56 (citing Ex. 1003 ¶¶ 219–20). Petitioner contends that Huston teaches the limitations of claims 10, 16, and 22 for the reasons given in Petitioner’s analysis of claim 4. *Id.*

Patent Owner contends that Huston alone does not render claims 4, 10, 16, and 22 obvious for the reasons given in Patent Owner’s previous arguments. PO Resp. 51–53.

5. *Claims 5, 11, 17, and 23*

Petitioner contends that Huston teaches the limitations of claim 5 in disclosing that the differencing engine selects content to be deleted by comparing the versions of content stored in the caches of the traffic servers with the versions stored in the origin servers, and causes older content to be deleted from the caches by issuing a delete command to the traffic servers. Pet. 56–57 (citing Ex. 1003 ¶¶ 221–22). Petitioner contends that Huston teaches the limitations of claims 11, 17, and 23 for the reasons given in Petitioner’s analysis of claim 5. *Id.*

Patent Owner contends that Huston alone does not render claims 5, 11, 17, and 23 obvious for the reasons given in Patent Owner’s previous arguments. PO Resp. 51–53.

6. *Claims 6, 12, 18, and 24*

Petitioner contends that Huston teaches the limitations of claim 6 in disclosing that the differencing engine receives information on new content from the origin servers and instructs the traffic servers to download new content from the origin servers based on the new content information. Pet. 57–58 (citing Ex. 1003 ¶¶ 223–24). Petitioner contends that Huston teaches the limitations of claims 12, 18, and 24 for the reasons given in Petitioner’s analysis of claim 6. *Id.*

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Patent Owner contends that Huston alone does not render claims 6, 12, 18, and 24 obvious for the reasons given in Patent Owner's previous arguments. PO Resp. 51–53.

7. Conclusion for Obviousness based on Huston Alone

Patent Owner contends that Huston alone does not render claims 1–24 obvious for the reasons given in Patent Owner's previous arguments. PO Resp. 51–53. We disagree with Patent Owner as discussed previously. We agree with Petitioner for the reasons given by Petitioner and Mr. Wechselberger and find that Petitioner has shown by a preponderance of the evidence that Huston renders obvious claims 1–24.

VIII. CONCLUSION

In summary, we determine a preponderance of the evidence establishes claims 1–24 of the ’559 patent are unpatentable, as shown in the following table:⁷

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, 22	102	Cassin	1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, 22	
1–24	103	Cassin, Huston	1–24	
1–24	103	Huston	1–24	
Overall Outcome			1–24	

⁷ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

IX. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–24 of the '559 patent have been proven by a preponderance of the evidence to be unpatentable; and

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

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