Trials@uspto.gov
571-272-7822

Paper 33
Entered: June 3, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

WILDSEED MOBILE, LLC,
Patent Owner.

IPR2023-00247
Patent 10,869,169 B2

Before KARL D. EASTHOM, TERRENCE W. McMILLIN, and MICHAEL T. CYGAN, *Administrative Patent Judges.*

CYGAN, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

Google LLC ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting institution of *inter partes* review of claims 1–22 (the "challenged claims") of U.S. Patent No. 10,869,169 B2 (Ex. 1001, the "'169 patent"). The Petition was accompanied by a Declaration from Dr. Henry Houh. Ex. 1003. Wildseed Mobile LLC ("Patent Owner") filed a Preliminary Response ("Prelim. Resp."). Paper 6. We authorized additional briefing on "*Fintiv* issues based on developments in the district court litigation." Exs. 3001, 3002; Papers 7, 8; Ex. 1023. We instituted an *inter partes* review as to claims 1–22 of the '169 patent and all of the asserted grounds of unpatentability. Paper 10 ("Dec. on Inst.").

Patent Owner filed a Response, accompanied by a Declaration by Dr. Sam Malek. Paper 20 ("PO Resp."); Ex. 2009. Petitioner filed a Reply. Paper 23 ("Pet. Reply"). Patent Owner filed a Sur-Reply ("PO Sur-reply"). Oral argument was held, and a transcript was entered into the record. Paper 32 ("Tr.").

On the complete trial record, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–14 and 16–22 of the '169 patent are unpatentable, and has not shown by a preponderance of the evidence that claim 15 of the '169 patent is unpatentable.

B. Real Parties in Interest

Petitioner identifies Google LLC and YouTube, LLC as the real parties in interest. Pet. 84. Petitioner identifies Google LLC as a subsidiary of XXVI Holdings, Inc., which is a subsidiary of Alphabet Inc., but states that XXVI Holdings Inc. and Alphabet Inc. are not real parties in interest to

this proceeding. *Id.* at 84 n.3. Patent Owner identifies Wildseed Mobile LLC as the real party in interest. Paper 5, 1.

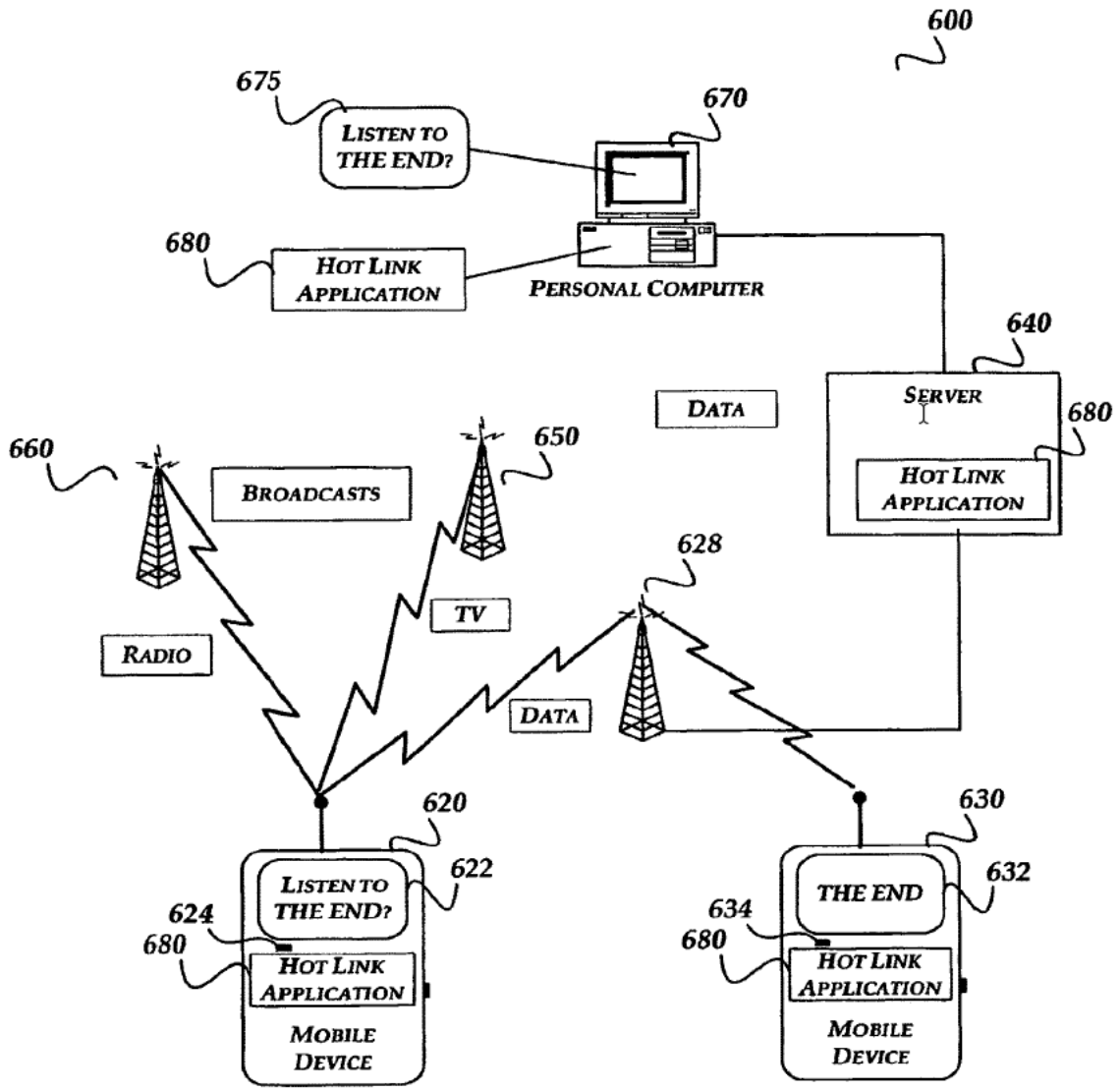
C. Related Matters

The parties represent that the '169 patent is involved in *Wildseed Mobile LLC v. Google LLC et al.*, 3-22-cv-04928, N.D. CA, filed August 29, 2022. Pet. 84; Paper 5, 1. Petitioner further represents that the '169 patent is involved in *Wildseed Mobile LLC v. Google LLC et al.*, 6-22-cv-00357, W.D. TX, filed April 4, 2022; however, Patent Owner states that this is the original filing of the first-listed case. Pet. 84; Paper 5, 1. Petitioner further represents that the '169 patent is involved in *Wildseed Mobile LLC v. Google LLC et al.*, 6-21-cv-01245, W.D. TX Oct. 8, 2021; however, Patent Owner states that this case has been voluntarily dismissed. Pet. 84; Paper 5, 1.

Patent Owner represents that Petitioner has filed, at the same time that this Petition was filed, petitions for *inter partes* review against related family members U.S. Patent No. 10,251,021 (IPR2023-00244), U.S. Patent No. 10,959,040 (IPR2023-00245), U.S. Patent No. 9,141,960 (IPR2023-00246), and U.S. Patent No. 7,376,414 (IPR2023-00248). Paper 5, 1.

D. The '169 Patent

The '169 patent is titled "Method and Systems for Generating and Sending a Hot Link Associated With a User Interface to a Device." Ex. 1001, code (54). The '169 patent issued from Application Serial No. 15/839,396, filed on December 12, 2017, and claims priority through a chain of continuation applications to Provisional Application No. 60/290,592, filed on May 11, 2001. *Id.* at codes (21), (22), (60), (63). Figure 6, reproduced below, illustrates an embodiment implementing the disclosed invention:



As explained in the '169 patent,

FIG. 6 shows a functional block diagram of a hot link transfer system utilizing a server and mobile devices, in accordance with the present invention. As shown in the figure, hot link transfer system 600 includes personal computer 670, mobile device 620, mobile device 630, radio broadcast 660, TV broadcast 650, and data broadcast 626. Personal computer 670 includes display 675 and hot link application 680. Server 640 includes hot link application 680. Mobile device 620 includes display 622, command button 624, and hot link application 680. Mobile

> device 630 includes display 632, command button 634, and hot link application 680.

Ex. 1001, 11:6–17.

As illustrated in Figure 6, the user of mobile device 630 is listening to a song titled "THE END." Ex. 1001, 11:42–43. The user may select command button 634 to send a hot link to users of devices 620 and 670 that, when selected, will tune their devices to the broadcast currently playing "THE END." *Id.* at 11:43–54. Users 620 and 670 may receive a message accompanying the hot link, such as, "Listen[] to THE END?" *Id.* at 11:60–64.

E. Illustrative Claim

Claim 1 is illustrative, and recites as follows:[1]

> [1.0] One or more non-transitory computer-readable media (NTCRM) including program code, wherein execution of the program code by one or more processors of a computer system is to cause the computer system to:
>
> [1.1] identify a trigger to generate a hot link; and;
>
> [1.2] in response to detection of the trigger, determine an action to be performed upon activation of the hot link based on the trigger,
>
> [1.3] wherein activation of the hot link by individual user devices of a set of user devices is to cause the individual user devices to execute program code to perform the action;
>
> [1.4] generate a hot link message to include the determined action and instructions for rendering and displaying the hot link at each of the set of user devices; and;
>
> [1.5] control transmission of the hot link message to the set of user devices.

[1] Petitioner's bracketing indicia have been added.

F. Evidence

Petitioner relies on the following patent evidence.

Name	Patent Document	Exhibit
Rothschild	U.S. Patent No. 8,645,211	1005
Saltanov	U.S. Patent No. 6,839,411	1006
Chen	U.S. Patent No. 6,836,792	1007
Maes	U.S. Pub. No. 2002/0002502 A1	1008

G. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–22 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–18, 21–22	103(a)[2]	Rothschild
19	103(a)	Rothschild, Saltanov
20	103(a)	Rothschild, Saltanov, Maes
1–18, 21–22	103(a)	Rothschild, Chen
19	103(a)	Rothschild, Chen, Saltanov
20	103(a)	Rothschild, Chen, Saltanov, Maes

II. ANALYSIS

A. Legal Standards

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, "would have been obvious at the time the invention was made to a person having ordinary skill in the art [to which said subject matter pertains]." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398,

[2] Petitioner asserts, and we agree, that the pre-AIA patentability statutes apply to the '169 patent. *See* Pet. 19.

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 ordinary skill in the art; and (4) objective evidence of non-obviousness.[3] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art on or before May 11, 2001

> would have had a working knowledge of the software and communication arts pertinent to the '169 patent . . . [and a] bachelor's degree in computer science, computer engineering, or an equivalent, and two years of work experience in the field of communications and software. Lack of professional experience can be remedied by additional education, and vice versa.

Pet. 11–12 (citing Ex. 1003 ¶¶ 18–20).

Patent Owner applies Petitioner's assessment of the level of ordinary skill for the purposes of this proceeding. PO Resp. 9. Determining the level of ordinary skill in the art involves various factors, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). The prior art of record also reflects the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We adopt the assessment offered by Petitioner, as it is consistent with the '169 patent and the asserted prior art.

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[3] Neither party presents evidence or arguments regarding objective evidence of non-obviousness.

C. Claim Construction

In an *inter partes* review, we construe a patent claim "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). Under this standard, the words of a claim generally are given their "ordinary and customary meaning," which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Here, Petitioner contends that "the terms of the Challenged Claims should be given their plain and ordinary meaning, and no terms require specific construction." Pet. 12. Prior to institution, Patent Owner agreed (Prelim. Resp. 9), and we applied, each term its ordinary and customary meaning in our Institution Decision. Dec. on Inst. 8 ("At this stage, no need exists to construe any claims expressly to resolve the parties' disputes").

In its post-institution briefing, Patent Owner does not argue for construction of any particular claim term. Although Patent Owner argues that Rothschild does not teach "generate a hot link message," we determine that the controversy is over the teachings of Rothschild and the assertions presented by Petitioner rather than the construction of that term. *See, e.g.*, Pet. Reply 15 ("by inserting the advertisement into the email and formatting it for transmission, Rothschild's email server *generates* the advertisement"); Tr. 8:5–11 ("the advertisement [is] inserted into the email, and then it is formatted into something that the user can interact with. In other words, it becomes a hot link at that point."); PO Sur-reply 1 ("the Petition expressly relied on creating ads (allegedly 'hot links') during message formatting"), 3–4 (stating that in the '169 Patent, "[l]inks will be created" using "pre-

created" content and user-selected actions). As exemplified by the above-cited sections, both parties acknowledge that "generat[ing]" a hot link requires pre-created content and some further action, differing only on whether Rothschild teaches any such further action. Consequently, we need not construe that phrase to resolve the parties' disputes. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Obviousness over Rothschild and Chen

Petitioner asserts that claims 1–18, 21, and 22 are unpatentable under § 103(a) as obvious over Rothschild (Ground 1), or alternately, over Rothschild in view of Chen (Ground 4). Patent Owner provides arguments and evidence against these assertions.

Upon consideration of Petitioner's explanations and the totality of evidence in this current record, we are persuaded that Petitioner has demonstrated by a preponderance of the evidence that claims 1–14, 16–18, 21, and 22 are unpatentable under § 103(a) as obvious over the combined teachings of Rothschild and Chen. We further determine that Petitioner has not demonstrated by a preponderance of the evidence that claim 15 is unpatentable under § 103(a) as obvious over the combined teachings of Rothschild and Chen. Because we resolve all issues based on the combination of Rothschild and Chen, we do not reach Petitioner's assertions based upon Rothschild alone.

1. Rothschild (Ex. 1005)

Rothschild relates to "provid[ing] for adding an advertisement to a personal communication and providing additional communication data to a

recipient that interacts with the advertisement regardless of the network device the recipient is utilizing." Ex. 1005, code (57). Figure 9 illustrates a configuration of devices according to the invention:

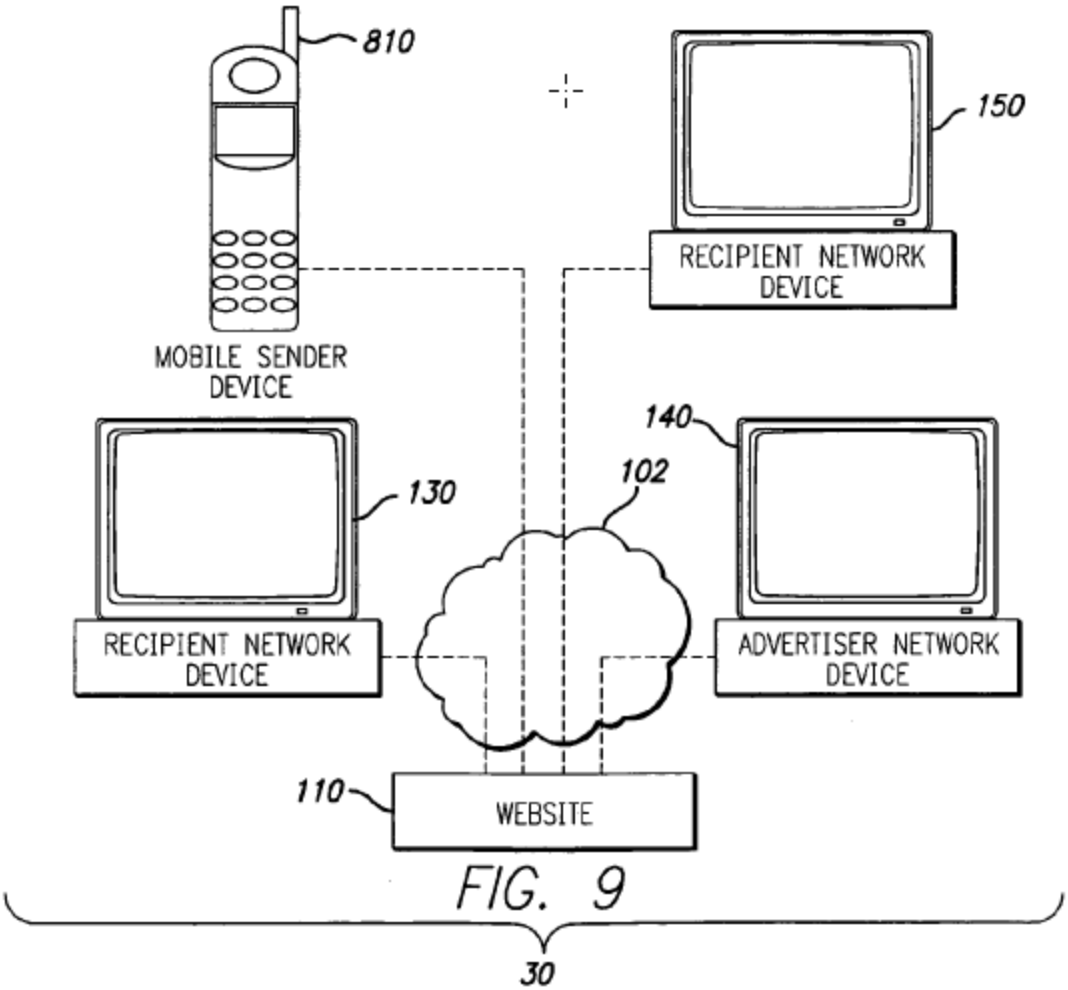

FIG. 9

The embodiment of Figure 9 is described as follows:

> [T]he mobile client is an e-mail client that works together with the advertising application 114 (see FIG. 2) to route an e-mail containing an advertisement to a recipient network device 130. The mobile sender device 810 is connected to, and communicates through, the Internet 102. This allows the mobile sender device 810 to communicate with the Web site 110, and more specifically with the advertising application 114 (see FIG. 2). The e-mail client allows the sender to provide the mobile sender device 810, containing the various software components depicted in FIG. 8, with message data and selected advertisement

> data. After the message data and selected advertisement data is compiled, and the sender has indicated that the compiled data should be sent, the compiled data (which may include message data, advertisement data, and sender data) is transmitted to the Web site 110. . . . if the recipient network device 130 interacts with an interactive advertisement contained within the e-mail, the recipient network device 130 will be provided with additional communication data pertaining to the request data contained in the URL that is embedded within the interactive advertisement.

Ex. 1005, 15:12–35.

2. Chen (Ex. 1007)

Chen relates to a "method for providing add-on services responsive to an email transferred via a distributed computer network." Ex. 1007, code (57). The add-on service may be auto-reply, paging, virus scanning, and the like. *Id.* at 7:15–25. After the add-on service is performed, the email is passed to an HTML converter facility that converts the email format to a browser-displayable format. *Id.* at 7:40–44.

3. Analysis of Claim 1

a) [1.0] One or more non-transitory computer-readable media (NTCRM) including program code, wherein execution of the program code by one or more processors of a computer system is to cause the computer system to:

Petitioner asserts that this preamble, to the extent limiting, is described by Rothschild. Petitioner points to Rothschild's description of a web server having memory device 111 that, when executed within a hardware device such as a web server, operates an application program 114 on the web site 110. Pet. 24–25 (citing Ex. 1005, 6:61–67 ("hardware/software server"), 7:37–8:2 ("advertising application 114, operating on the Web site 110, [which] permits a sender to create, and send a personal communication," "RAM, cache memory, . . . tape drives"), 6:38–47

("an application program . . . performs a function when executed within a computer hardware device"). Patent Owner does not specifically contest this assertion.

Because Petitioner has shown Rothschild to teach that this is performed by Rothschild's application program executed on a computer, we determine that Petitioner has persuasively shown Rothschild to teach limitation [1.0].

b) [1.1] identify a trigger to generate a hot link

Petitioner asserts that this limitation is described by Rothschild's pull-down menu 404 for selecting an interactive advertisement. Pet. 26 (citing Ex. 1005, Fig. 4, 9:11–31; Ex. 1003 ¶ 41). Petitioner asserts that "Rothschild's server *identifies* the 'trigger' when it provides the sending user's device with the e-mail communication page 402 that contains the pull-down menu." *Id.* at 27 (citing Ex. 1005, 11:5–10). Petitioner also states that Rothschild's server identifies the trigger when it receives the user's selection of an advertisement from the pull-down menu. *Id.* at 28–29 (citing Ex. 1005, 11:14–16). Petitioner asserts that selection of an advertisement from the pull-down menu, via receipt of the selection at the server, "ultimately *triggers* insertion of the advertisement into an email message." *Id.* at 26 (citing Ex. 1005, 9:11–31), 28–29 (citing Ex. 1005, 11:28–30; Ex. 1003 ¶ 45). Petitioner asserts that the advertisement, once inserted into the email, contains a hot link because the advertisement is interactive, containing an embedded URL (Universal Resource Locator), and interaction with the advertisement causes an action to be performed, such as retrieving additional data from a web site. *Id.* at 27–28 (citing Ex. 1005, 5:8–16; Ex. 1003 ¶¶ 39–44). Thus, Petitioner asserts that the identified trigger (the option presented in the pull-down menu that is selected by the

user) results in the advertisement data being inserted into an email so as to generate a hot link, i.e., by inserting the advertisement in such a manner that interaction with the inserted advertisement causes an action to be performed. *Id.*

Patent Owner argues that claim 1 requires "generating a hot link during the message creation process," due to the recitation, "identify a trigger to *generate a hot link*." PO Resp. 11. Patent Owner takes issue with Petitioner's assertion that Rothschild teaches that "a hot link is generated when the message data (which includes the selected advertisement) is formatted into a standard e-mail format." *Id.* at 13 (quoting Pet. 46 (which cites to Ex. 1005, 11:28–30), citing Ex. 1003 ¶ 97) (emphasis omitted). Patent Owner argues that the quoted phrase of Rothschild merely indicates that the interactive advertisement is formatted, not generated. *Id.* at 13–14 (citing Ex. 2009 ¶ 50). Patent Owner points to Dr. Houh's deposition testimony that the email already includes the interactive ad when the user presses the "send" button in Rothschild's e-mail composition interface. *Id.* at 15–16. Patent Owner argues that Rothschild's formatting "does not generate or edit the ad, which is already in the email data," but instead, "is performed to satisfy email format requirements." *Id.* at 18–19 (citing Ex. 2009 ¶ 55; Ex. 1005, 11:28–56).

As further evidence that no hot link is generated during Rothschild's formatting, Patent Owner points to Rothschild's SMS embodiment that does not have any formatting step, and is otherwise identical to Rothschild's email embodiment. PO Resp. 19–23 (citing Ex. 1005, Fig. 11). Patent Owner argues that in Rothschild, all of the ads available for selection are downloaded and stored in the mobile device before the user selects any ad. *Id* at 23–24 (citing Ex. 2009 ¶ 62). For SMS, the message is sent by the

mobile device; for email, the message is formatted and sent by the server. *Id.* at 25. Patent Owner argues that the SMS embodiment shows that the interactive ads are pre-existing, and not generated when selected; i.e., "triggered," using the pull-down menu 404 in Rothschild. *Id.* at 27–32 (citing Ex. 2009 ¶¶ 67–71).

We begin our analysis of Patent Owner's argument with the language of the claim. In limitation [1.1], the computer system must "identify a trigger to generate a hot link." Patent Owner admits that "the claim doesn't then separately break out, generate a hot link." Tr. 35:9–36:9, 37:3–5. As pointed out by Petitioner, the action required is the identification of a trigger. Pet. Reply 2–3. The function or use of the trigger is to generate a hot link. *See* Tr. 34:15–16 ("the claim language of a trigger is basically some reason why a hot link is going to be created"). The remaining limitations of claim 1 occur "in response to detection of the trigger." Ex. 1001, 18:12. Those limitations specify the hot link's action when activated by a user ([1.2]), the message including that action ([1.4]), and how the hot link will be rendered and displayed on user devices ([1.4]). Although limitation [1.1] specifies its trigger, limitations [1.2] and [1.4] specifies the characteristics of the hotlink; limitation [1.2] specifies its action, and limitation [1.4] specifies the message by which it is communicated and how it is rendered and displayed on receipt. *Id.* at 18:14–21.

Petitioner's declarant, Dr. Malek, provides an illuminating example from the '169 patent, describing that "when a user desires to have a hot link sent to his device when a certain song is playing . . . server hot link application may send a hot link instructing the user's device to receive the broadcast of the song when the command button is activated." Ex. 2009 ¶ 37 (quoting Ex. 1001, 11:22–33) (emphasis omitted). In this example, the

trigger; i.e., the action that initiates the hot link generation, is "when a certain song is playing." The action that is performed when activated by the user is "receive the broadcast." Ex. 2009 ¶ 38 (citing Ex. 1001, 16:3–8).

We have considered Dr. Malek's attestation that limitation [1.1] requires the program code to generate a hot link. Ex. 1024, 19:15–23. However, Patent Owner admits that "the hot link itself has to include the determined action." Tr. 36:10–12. Because limitation [1.2] requires that action to be determined "in response to detection of the trigger," it is unclear how the hot link could be generated in limitation [1.1] before its associated action has been determined in limitation [1.2]. Consequently, we determine that the claim structure does not require a hot link to be generated in limitation [1.1]. Instead, and in accordance with Patent Owner's statements during oral argument, we determine that the hot link is generated "in the course of generating the hot link message." *Id.* at 36:14–17; *see also Id.* at 48:12–19 (stating "there needs to be a trigger that says, okay, you need to create a hot link . . . after you've detected the trigger, because you detected the trigger to create a hot link, at that point, you determine an action to be performed.").

Patent Owner argues that Rothschild does not identify any trigger for generating an interactive ad. PO Resp. 29–32. This argument is predicated on Patent Owner's reading of "generating" as excluding use of Rothschild's pre-existing advertisements. *Id.* at 32 (citing Ex. 1005, 9:32–50; Ex. 2009 ¶ 74). Patent Owner's remaining arguments concerning "to generate a hot link" are based on actions "during message creation," and address Petitioner's assertions concerning limitations [1.2] and [1.4]. *See, e.g.*, *id.* at 13 (addressing Petitioner's assertion for limitation [1.4] that formatting the message data generates a hot link), 52 (addressing limitation [1.2], stating,

"the URL is already determined before the message creation process begins."). Because we have determined that these limitations are not required by limitation [1.1], we address Patent Owner's arguments in our discussion of limitations [1.2] and [1.4].

We agree with Petitioner that limitation [1.1] is taught by Rothschild's provision, by a server, of selectable advertisements to the user. Pet. 27. The server identifies advertisement options that, if selected, ultimately result in the inclusion of a hot link in a message. *Id.* The advertisement options, when in the pull-down menu, do not cause the user's device to perform any action beyond including the advertisement in the message; that is, the menu options are not hot links themselves. Rothschild's menu of advertisements identifies the trigger (the selectable option) for the hot link (the included advertisement) to be generated in the message. When an option is selected by a user, an email message is created having the selected, user-interactive advertisement therein. Ex. 2011, 181:11–14 ("[I]n order to fully compose the message, you need to have the text or the code behind the message behind the hotlink, or the interactive advertisement of Rothschild."), 185:2–5 ("[t]o send a personal communication containing a sender-selected advertisement" (citing Ex. 1005, 4:27)). The user-interactive advertisement, when included in a message and selected by the recipient of that message, causes an action to be performed based on the selected option. Consequently, we are persuaded that Petitioner has shown, by a preponderance of the evidence, that Rothschild teaches limitation [1.1].

c) [1.2] in response to detection of the trigger, determine an action to be performed upon activation of the hot link based on the trigger;

Petitioner points to the action of Rothschild's server, upon receipt of the user's selection of the advertisement from the pull-down menu, of placing the selected interactive advertisement with its associated URL, into the email message. Pet. 29 (citing Ex. 1005, 9:26–31). By detecting which advertisement and associated URL was selected, the server determines which advertisement and associated URL should be put into the email message. *Id.* at 29–30. Because the URL determines the action to be performed when a recipient of the message activates the advertisement in the email, detection of the selected URL results in the determination of the data to be retrieved when the advertisement is activated. *Id.* at 30 (citing Ex. 1005, 11:57–12:13, 8:31–64; Ex. 1003 ¶¶ 46–50).

Patent Owner argues that Rothschild's action of inserting an advertisement, corresponding to the menu option selected by the user, does not determine what action will be taken upon activation of the ad. PO Resp. 51–52 (citing Ex. 1005, 9:26–52). Patent Owner argues that because Petitioner's alleged action to be performed is defined by the URL embedded within the advertisement, at best Rothschild teaches what action will be available when interacting with the hot link message, not the hot link. *Id.* (citing Ex. 1009 ¶ 110). Patent Owner reasons that the server does not determine the "action to be performed" in response to receiving the user's ad, because it has been predetermined by the advertiser. *Id.* at 52 (citing Ex. 1005, 13:26–49; Ex. 2009 ¶¶ 111–112).

Petitioner argues that Patent Owner has not accurately characterized Petitioner's assertion. Pet. Reply 9. Petitioner argues that Rothschild's

server determines an action to be performed by placing the selected interactive advertisement into the email message. *Id.* (citing Ex. 1005, 9:26–31; Pet. 29).

Although the URL is pre-associated with a particular advertisement, we do not agree that the server does not perform functions, such as inserting the advertisement and embedded URL into an email message, in response to determining that the user selected an advertisement. The action to be performed by a recipient of an email containing that embedded URL is determined by the selection of the advertisement, because different advertisements have different embedded URLs. *See* PO Resp. 51 ("determining what ad to insert relates to determining an action that will be available when interacting with the hot link message, because the inserted ad is a first interactive ad rather than a second interactive ad.") (emphasis omitted).

Clearly, the selection of an ad, when detected by a server, results in the insertion of that ad with any accompanying URL. Patent Owner would read limitation [1.2] as a determination of which action would be performed when interacting with a given ad, such that an ad is selected and then the action is subsequently determined. PO Resp. 51. But limitation [1.2] requires only that the hot link action be determined in response to the detection of the trigger. Although the advertiser determines which URL is associated with which ad, it is the user's action in selecting a desired ad, and the server's detection of that ad, that results in a message containing a particular URL that when activated, causes an action based upon the identity of that URL to be performed.

Thus, we determine that Petitioner has met its burden to show limitation 1.2 to be taught by Rothschild.

d) [1.3] wherein activation of the hot link by individual user devices of a set of user devices is to cause the individual user devices to execute program code to perform the action;

As discussed for limitations 1.1 and 1.2, Petitioner points to the message recipient's activation of the advertisement, causing the recipient's system to retrieve data from the source of the advertisement's URL. Pet. 31 (citing Ex. 1005, 5:8–16, 11:57–12:13 ("When a recipient interacts with an interactive advertisement, the request data (contained in the advertisement's embedded URL) calls to the data processing layer[, which] uses the request data . . . to retrieve data from the Web site memory device.")). Petitioner asserts that the retrieval of data occurs via a web browser application, and that it would have been obvious for such retrieval to have occurred through execution of program code, in view of Rothschild's statement that "an application program is a set of one or more computer programs that performs a function when executed within a computer hardware device." *Id.* (quoting Ex. 1005, 6:39–41; citing Ex. 1003 ¶¶ 51–53).

Patent Owner does not contest Petitioner's assertions. Based on the foregoing, we determine that Petition has persuasively shown limitation 1.3 to be taught by Rothschild.

e) [1.4] generate a hot link message to include the determined action and instructions for rendering and displaying the hot link at each of the set of user devices; and;

With respect to "generate a hot link message to include the determined action," Petitioner asserts that "Rothschild's server generates a hot link message when the web server formats the message data into an e-mail that contains the selected interactive advertisement." Pet. 32 (citing Ex. 1005, 10:65–11:33 ("At step 516 the message data (which includes the selected advertisement) is formatted into a standard e-mail format")).

Petitioner further asserts that the URL embedded in the advertisement included in the message defines the determined action, and that the display of the message's advertisement may be in a variety of forms, including graphical. *Id.* at 32–33 (citing Ex. 1005, 8:3–30, 13:41–42). Petitioner asserts that the data representing the graphical form of the advertisement comprises instructions for rendering and displaying the hot link; i.e., the link itself.

Patent Owner argues that Petitioner errs in asserting that the hot link in limitations [1.1] and [1.4] can be placed in the message by inserting the selected advertisement. PO Resp. 11–12 (citing Pet. 26–29). Patent Owner argues that the message must contain a hot link that is generated (in response to the trigger), not merely inserted in the course of generating the hot link message. Patent Owner argues that Rothschild's advertisement is inserted in the message prior to its formatting process, and therefore, it is not generated through the email formatting as asserted by Petitioner. *Id.* at 13–15 (citing Ex. 1005, 11:28–30; Ex. 2009 ¶ 50; Ex. 2011, 179:4–180:12). Patent Owner points to Rothschild's description of the email formatting process:

> [T]he advertising application provides the sender network device with an e-mail communication page (see FIG. 4), enabling the sender to enter . . . a selected advertisement that should accompany the completed e-mail. The end result is a compilation of data . . . . The advertising application. . . receives a response from the sender network device indicating that a compilation of data is being submitted. At step 512, the advertising application receives the compilation of data, which includes message data, sender data, and advertisement data. . . . At step 516 the message data (which includes the selected advertisement) is formatted into a standard e-mail format.. . . At step 520, the formatted e-mail is sent to the designated recipient(s).

Id. at 17 (quoting Ex. 1005, 11:5–33; citing Ex. 2009 ¶ 54) (emphasis omitted, alterations in original). Patent Owner further points to a second formatting in Rothschild that is performed after the first formatting "to satisfy email formal requirements, [but] not to generate or edit an ad." *Id.* at 18 (citing Ex. 2009 ¶ 55; Ex. 1005, 11:28–56 (stating, "the email is re-formatted so that it can be read by the recipient network device 130 [for example,] so they are properly displayed on the mobile phone's display")).

Patent Owner points to Rothschild's SMS embodiment in which no formatting step or server is used in the transmission of a hot link-containing message. PO Resp. 19–22 (citing Ex. 1005, Figs. 9–11, 15:12–15, 15:48–51; Ex. 2009 ¶¶ 59–60). Patent Owner argues that in both SMS and email embodiments, the mobile device downloads and stores the palette of advertisements in the mobile sender device's memory prior to the formatting of the email message. *Id.* at 23–29 (citing Ex. 1005, 16:18–25, 16:53–61, 17:10–12, Fig. 11; Ex. 2009 ¶ 61). Patent Owner argues that the SMS embodiment illustrates that the advertisement needs no formatting for its hot link to be operative. *Id.* at 29.

We determine that Petitioner has shown Rothschild to teach "generate a hot link message to include the determined action" as recited in limitation [1.4]. Rothschild generates a message that contains an advertisement, which is "an icon, graphic, text, or voice message that can be interacted with to provide the recipient with additional communication data." Ex. 1005, 8:3–30. As discussed for limitation [1.2], the advertisement contains an action, in the form of retrieval of information from a web site, to be performed upon interaction with the user. *Supra* at II(D)(3)(c). Consequently, we agree that Rothschild's interactive advertisement within the message teaches the claimed hot link, described in the '169 patent as "contain[ing] an action that

instructs the receiving device to perform some activity." Ex. 1001, 1:67–2:3.

Patent Owner's arguments are based on the uncontested allegation that in Rothschild, the URL is not created in the advertisement in response to the program code's detection of a trigger; i.e., in response to the user selecting the advertisement. *See, e.g.*, PO Resp. 14; Pet. Reply 9–10. However, even if Patent Owner's characterization of Rothschild is correct, the claim requires only that the "determined action" included in the hot link message is in response to the "detection of the trigger." Because the user in Rothschild selects an advertisement, the user determines the action (corresponding to the selected advertisement) to be placed within the hot link message, thereby teaching the claimed "generate a hot link message to include the determined action."

With respect to the claimed "instructions for rendering and displaying the hot link at each of the set of user devices," relying on testimony by Dr. Houh, and description in Chen and Rothschild, Petitioner asserts that a person having ordinary skill in the art would have recognized that such an interactive advertisement would have been implemented by HTML, whose code comprises instructions for rendering and displaying the hot link. Pet. 33 (citing Ex. 1003 ¶¶ 58–59; Ex. 1007, 2:37–54 (Chen's description of inserting advertisements into e-mail using HTML as "conventional"); Ex. 1005, 2:26–36 (Rothschild's mention of "Hotmail" as an example e-mail service)). Petitioner asserts that a person having ordinary skill in the art would recognize the obviousness of HTML code to process the URL, the code thereby acting as instructions for rendering and displaying a hot link. *Id.* at 33–34 (citing Ex. 1003 ¶ 60).

Petitioner asserts that a person having ordinary skill in the art would have found it obvious to combine the teachings of Rothschild and Chen because it "represents the combination of known elements (e-mail advertisements) according to known methods (HTML) to yield predictable results." Pet. 82 (citing Ex. 1003 ¶¶ 187–193). Petitioner also points to Chen's statement that its teachings provide "improved techniques for providing new services and features to users of an existing email system in a way that requires little change to the existing email systems and at little cost." *Id.* (quoting Ex. 1007, 3:64–67). Petitioner asserts that a person of ordinary skill in the art would have had a reasonable expectation of success in such combination because both Rothschild and Chen describe a similar variety of media advertisements, with Chen further stating that each form of media advertisement may be with or without HTML links. *Id.* at 81–82 (citing Ex. 1003 ¶¶ 191–192; Ex. 1005, 8:22–25; Ex. 1007, 8:23–27).

Patent Owner argues that Rothschild does not teach this limitation. PO Resp. 32–33 ("Petitioner then relies on HTML tags to meet the instructions recited in claim[] 1."). Patent Owner argues that Rothschild describes an interactive ad having an embedded URL, but not as having HTML tags in any situation. *Id.* at 14, 33 (citing Ex. 2009 ¶¶ 50, 75). Patent Owner argues that Rothschild instead describes using Rich Text Format ("RTF") to format text. *Id.* at 34–39 (citing Ex. 2011, 113:12–17; Ex. 2009 ¶¶ 77–79). Further, Patent Owner argues that interactive ads are attached in Rothschild as separate, pre-existing files, not as part of HTML tags. *Id.* at 39–48. With respect to Chen, Patent Owner argues that "[e]ven assuming a POSITA would have understood that HTML could be used to format e-mails, Petitioner does not establish that a POSITA would have used

HTML to implement e-mails in Rothschild's system, especially in view of Rothschild's teachings." *Id.* at 33 n.2.

Petitioner asserts Rothschild in view of Chen teaches that the hot link message includes "instructions for rendering and displaying the hot link at each of the set of user devices."[4] We agree that the record evidence supports Petitioner's assertion that the use of HTML would be a known way to send advertisements in an e-mail. Chen teaches that advertisements may be inserted into an email with or without HTML links. Ex. 1007, 8:19–26. A document discussing the Microsoft Outlook email system, submitted by Patent Owner, states that "HTML is the best format to use when you want to create message that look like traditional documents." Ex. 2019 ("Microsoft Support, Change the Message Format to HTML, Rich Text Format, or Plain Text"), 1–2. That same document states that "we recommend that you use HTML" instead of RTF because RTF "is a legacy format and we do not plan to bring improvements to it," and that RTF is not recommended for encryption and is prone to face conversion issues. *Id.* at 2. Chen also states that its HTML-based advertisement email implementation provides "improved techniques . . . in a way that requires little change to the existing email systems and at little cost." Ex. 1007, 3:64–67. Thus, the evidence of record establishes that a person having ordinary skill in the art at the pertinent time would have looked to HTML to implement e-mails in Rothschild's system.

Based on the foregoing, we determine that Petition has persuasively shown limitation [1.4] to be taught by Rothschild in view of Chen.

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[4] Because we address Petitioner's assertions relying explicitly on Chen's teachings, we need not, and do not, reach Petitioner's assertions relying on Chen for its evidence as to the background knowledge in the art.

f) [1.5] control transmission of the hot link message to the set of user devices.

Petitioner asserts that Rothschild's web server transmits the formatted advertisement-bearing message to recipients. Pet. 34–35 (citing Ex. 1005, 11:30–33; Ex. 1003 ¶¶ 63–64).

Patent Owner argues that Petitioner has not shown Rothschild's computer system to "control" transmission. PO Resp. 64–65. Patent Owner argues that "control" has a particular meaning in computer science; i.e., "one or more decisions made by a computer." *Id.* at 65 (citing Ex. 2009 ¶¶ 134–135). Patent Owner presents an example of "an application [that] always shows a screen that simply displays 'hello, world' and the application has no other functionality, [then] that application does not control what is displayed." *Id.* (citing Ex. 2009 ¶ 136). Patent Owner further argues that Petitioner does not dispute Dr. Malek's explanation that such control is required and that Petitioner's argument that the claim does not specify the details of such control does not eliminate Petitioner's burden to show Rothschild to teach the claimed control. PO Sur-reply 27–28 (citing Ex. 2009 ¶¶ 132–137). Patent Owner argues that Petitioner points to drivers or humans as the controlling entities, not the application as required by claim 1. *Id.* at 65 (citing Ex. 2011, 167:11–172:1).

We determine that the record supports Petitioner's assertion that Rothschild teaches limitation [1.5]. Rothschild's server-based application transmits the message. Ex. 1005, 7:37–8:2 ("advertising application 114, operating on the Web site 110, [which] permits a sender to create, and send a personal communication"). A user sends a message through the "Send Message" button on the application's interface Rothschild states that the application, not the user, transmits the message to the user devices: "[a]t step

1126, the formatted e-mail message is sent by the advertising application to the designated recipient network device over the Internet." *Id.* at Figs. 4, 11 (items 1112, 1126). Contrary to Patent Owner's argument, the server's advertising application is not merely a transmitter lacking all functionality except transmitting. Instead, the advertising application receives an indication that the user would like to send a message to a second user, determines the proper formatting and destination, and transmits the formatted message according to its programming. Rothschild describes its process as a first step performed by the user ("the sender then provides the e-mail client with message data") and a second step performed by the advertising application ("the formatted e-mail message is sent by the advertising application to the designated recipient network device"). We determine that the record supports Petitioner's assertion that Rothschild's server-based advertising application controls transmission of the message to the receiving devices. Consequently, we determine that Petitioner has persuasively shown Rothschild to teach limitation [1.5].

g) Determination

In view of the foregoing, we determine that Petitioner has persuasively shown that each element of claim 1 would have been taught or suggested by Rothschild in view of Chen. Further, that Petitioner has persuasively shown that a person having ordinary skill in the art would have reason to combine Rothschild with Chen and would have a reasonable expectation of success in doing so. For the above-described reasons, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 1 would have been obvious over Rothschild and Chen.

4. Analysis of Claims 2–14, 16–18, and 21–22

Claim 2 depends from claim 1, and further recites,

> wherein the individual user devices are second user devices, and execution of the program code is to cause the computer system to: provide a user interface to a first user device to be rendered and displayed by the first user device, the user interface comprising one or more graphical control elements to control selection of users associated with the set of second user devices; and control receipt, from the first user device, of a request to generate a hot link along with identification information of the set of second user devices to receive the hot link.

Petitioner points to Rothschild's email communication page 402 provided by its web server to the sender's device, which permits the sender to specify the recipients of the email (to control selection of second users) and the advertisement (to control receipt of a request to generate a hot link in the message). Pet. 35–36 (citing Ex. 1005, Fig. 4, 9:13, 9:18–20). Patent Owner does not specifically contest Petitioner's assertions beyond those provided for claim 1. PO Resp. 60–61. As applied to claim 2, Patent Owner argues that Petitioner has failed to show "generating a hot link." *Id.*; PO Sur-reply 25–26. However, claim 2 recites only that the computer system is programmed to *control receipt of a request* to generate a hot link, not that it generates a hot link separate from the process of claim 1.

Patent Owner further argues that Rothschild has not been shown to "control receipt" of a request, for the same reason as expressed for claim limitation [1.5]; i.e., that Petitioner treats "control receipt" merely as "receipt," ignoring the requirement that the system control the receipt. PO Resp. 64; PO Sur-reply 27–28. Patent Owner argues that although its declarant, Dr. Malek, states that a person having ordinary skill in the art would have known how an operating system or BIOS (Basic Input/Output System) could control receipt, Dr. Malek also states that the presence of an operating system or BIOS "doesn't mean that it has all the kinds of controls

that the patent requires." PO Sur-reply 27–28 (citing Ex. 1024, 25:16–23). Patent Owner further argues, on the same reasoning, that Rothschild has not been shown to "control selection of users associated with the second set of user devices." PO Resp. 64.

We are persuaded by Petitioner that Rothschild teaches that its server-based application controls receipt of a request to generate a hot link and controls the selection of recipient users. Rothschild's server "receives the compilation of data" provided by the user. Ex. 1005, 11:14–16. The receipt of the data is controlled because a user must use the particular interface elements provided by the application in order for the server to receive such data. Ex. 1005, Fig. 4, 9:11–31). As explained with respect to claim limitation [1.5], the advertising application controls selection of users because it receives the user's desired recipient(s) through particular fields of its provided interface and then processes the received data into an email message that is formatted so as to contain the user's desired recipients as the destination addresses of the message.

Based on Petitioner's assertions, which are supported by the record evidence, we determine that Petitioner has shown by a preponderance of the evidence that claim 2 would have been obvious over the combination of Rothschild and Chen.

Claim 3 depends from claim 2, and further recites,

> wherein the information of the set of user devices comprises a selection of one or more users associated with the set of user devices or a selection of a group of users associated with the set of user devices.

Petitioner asserts that Rothschild's email communication page provides a recipient space 408 where recipients can be designated. Pet. 39. Patent Owner does not expressly argue the further limitations of claim 3. In

view of the record evidence, we determine that Petitioner has shown by a preponderance of the evidence that claim 3 would have been obvious over the combination of Rothschild and Chen. Claim 4 depends from claim 1, and further recites,

> wherein execution of the program code is to cause the computer system to: generate the hot link message to include an indication about the hot link, wherein the indication about the hot link comprises text, multimedia, or a link pointing to a resource that includes information about the hot link.

Petitioner asserts that the advertiser may include advertisement information, such as text, in the advertisement. Pet. 39 (citing Ex. 1005, 13:21–43). Petitioner alternately asserts that the link within the advertisement is used to retrieve additional communication data. *Id.* (citing Ex. 1005, 8:31–64). Patent Owner does not expressly argue the further limitations of claim 4. In view of Petitioner's explanation, which is supported by the record evidence, we determine that Petitioner has shown by a preponderance of the evidence that claim 4 would have been obvious over the combination of Rothschild and Chen.

Claim 5 depends from claim 4, and further recites,

> wherein execution of the program code is to cause the computer system to: generate the hot link message as a Short Message Service (SMS) message, an instant messaging (IM) message, or an email message.

Petitioner asserts that Rothschild describes SMS as alternative to email. Pet. 40 (citing Ex. 1005, 8:6–11; Ex. 1003 ¶¶ 80–81). Patent Owner does not expressly argue the further limitations of claim 5. Because claim 5 may be met by generating an email message, which we have determined to be taught by Rothschild in view of Chen for claim 1, we determine that

Petitioner has shown by a preponderance of the evidence that claim 5 would have been obvious over the combination of Rothschild and Chen.

Claim 6 depends from claim 1, and further recites,

> wherein execution of the program code is to cause the computer system to: identify a user interface element for activation of the hot link prior to generation of the hot link; and generate the hot link message to include assignment information, the assignment information to assign the hot link to the identified user interface element.

Petitioner relies upon its assertions for claim 1, including its HTML teachings. Pet. 41–43. Patent Owner argues against claim 6 for the same reasons as argued against claim 1; i.e., that Petitioner failed to show generating a hot link, and against claim 2; i.e., that Petitioner's insertion of HTML tags in an email is incompatible with Rothschild's interactive ads. PO Resp. 60–61; PO Sur-reply 25–26. For the same reasons expressed in our analysis of claims 1 and 2, we find that the record supports Petitioner's assertions, and that Petitioner has shown by a preponderance of the evidence that claim 6 would have been obvious over the combination of Rothschild and Chen.

Claim 7 depends from claim 1, and further recites,

> wherein the hot link comprises instructions to obtain and render a web page in a web browser, execute executable instructions of an application program, or adjust radiofrequency circuitry to obtain and display broadcasted content.

Petitioner asserts that Rothschild teaches that its recipient device may include a web browser. Pet. 44 (citing Ex. 1005, 7:51). Petitioner relies upon Dr. Houh's attestation that a person having ordinary skill would have found it obvious to retrieve data from a web site through the common

method of obtaining data from the URL through a web browser. *Id.* (citing Ex. 1003 ¶ 92).

Patent Owner does not expressly argue the further limitations of claim 7. Petitioner's assertions are supported by the record, and we determine that Petitioner has shown by a preponderance of the evidence that claim 7 would have been obvious over the combination of Rothschild and Chen.

Claim 8 depends from claim 1, and further recites,

> wherein execution of the program code is to cause the computer system to: determine a location for each user device of the set of user devices; and generate the hot link message to include the location of each user device.

Petitioner asserts that Rothschild's server receives the claimed location in the form of recipient email addresses from the sending user in the email communication page 402. Pet. 45–46 (citing Ex. 1003 ¶¶ 95–96). Petitioner then asserts that Rothschild's server, in formatting the email message, provides each email address in the appropriate "To" or "Cc" field. *Id.* at 46 (citing Ex. 1003 ¶ 97).

Patent Owner argues that the user, not the server, determines the email addresses of the devices, because the user must type email addresses into the provided fields. PO Resp. 61–62 (citing Ex. 1005, Fig. 4, 9:18–20; Ex. 2009 ¶¶ 130–131).

We agree with Petitioner that although the server receives data indicating which email addresses the user desires to be the recipients, the server determines the user's inputted email addresses and creates the message including those addresses in a format such that the email is sent to those addresses. Consequently, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 8 is obvious over Rothschild in view of Chen.

Claim 9 depends from claim 1, and further recites,

> wherein, to control transmission of the hot link message to the set of user devices, execution of the program code is to cause the computer system to: instruct a network interface of the computer system to send the hot link message to the set of user devices over a wired or wireless network.

Petitioner asserts that Rothschild's web server includes server components that serve information content over a network such as the Internet. Pet. 46–47 (citing Ex. 1005, 6:61–67, 7:11–14). Patent Owner does not expressly argue against the further limitations of claim 9. Petitioner's assertions are supported by the record, and we determine that Petitioner has shown by a preponderance of the evidence that claim 9 would have been obvious over the combination of Rothschild and Chen.

Claims 10–14 and 16–17 provide a computer system to be employed as a server, having network interface circuitry to perform functions analogous to claims 1–4 and 8–9. Petitioner relies upon the same teachings, and Patent Owner the same arguments, for these claims. Pet. 47–54; PO Resp. 10–53, 62–65. Consequently, we reach the same results; namely, that Petitioner has shown, by a preponderance of the evidence, that claims 10–14 and 16–17 are obvious over Rothschild and Chen.

Claim 18 recites, in pertinent part, "a hot link message comprising a hot link and assignment information, the assignment information to assign the hot link to a graphical control element (GCE)." Petitioner builds upon its assertions for claim 1, in which Rothschild's message to its recipient, including an interactive advertisement represented by a graphic or icon, teaches its hot link message having a graphical control element. Pet. 58. Regarding the claimed assignment information, Petitioner relies upon Dr. Houh's testimony that a person having ordinary skill in the art "would

have understood that data contained within the e-mail message that associates the interactive advertisement with the graphic or icon that is to be rendered on the receiving device's display is 'assignment information' because it assigns the graphic or icon to the interactive advertisement." *Id.* at 58–59 (citing Ex. 1003 ¶ 139) (emphasis omitted). Specifically, Petitioner asserts (for limitation 1.4) that an interactive advertisement that includes an embedded URL would have been implemented using HTML. *Id.* at 33 (citing Ex. 1003 ¶ 58). Because HTML code relies on tags that define how the embedded URL is displayed, Petitioner asserts that these tags assign the user interface element to the interactive advertisement. *Id.* (citing Ex. 1003 ¶ 59; Ex. 1010, 35; Ex. 1011, 39), 43 (providing an example in which "the HTML lines , <img src="graphic.jpg">, and assign the user interface element graphic.jpg to the interactive advertisement").

Patent Owner argues that this example has no support in Rothschild, that Rothschild lacks any description of data in an email that assigns an ad to an icon, that creating a second URL in the ad would be redundant, that Rothschild's manner of attaching ads to messages is incompatible with Petitioner's asserted HTML tags, and that Petitioner's hypothetical HTMP code does not match the manner by which Rothschild operates. PO Resp. 53–60. Patent Owner further argues that Rothschild has not been shown to teach the "control receipt" limitation in claim 18 that is similar to claim 2. *Id.* at 63–64.

However, Petitioner provides persuasive reasoning to explain why a person having ordinary skill in the art, encountering Rothschild's URL-based advertising message in view of the teachings of Chen, would find obvious the use of HTML tags associating the URL with the graphical ad in that message. Chen teaches that advertisements may be displayed in an

email message through the use of HTML links. Pet. 81–82 (citing Ex. 1007, 2:51–54, 8:23–27). Moreover, even though Rothschild's URL is "embedded" in the advertisement in the email, Petitioner's explanation of the use of HTML tags to embed, or assign, the URL to the graphical email element is self-consistent. On the current record, we find Petitioner's explanation to be supported by the record evidence.

Further, we agree with Petitioner's assertions with respect to the remaining limitations, as discussed for the similar limitations of claims 1 and 2, and further elaborated by Petitioner for claim 18. Pet. 55–62. For the above-mentioned reasons, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 18 would have been obvious over the combination of Rothschild and Chen.

Petitioner further asserts that dependent claims 21 and 22 are unpatentable for the same reasons set forth in their assertions against claims 7 and 4. Pet. 62. Patent Owner does not provide arguments additional to its arguments against claim 18. Consequently, we reach the same results; namely, that Petitioner has shown, by a preponderance of the evidence, that claims 21 and 22 are obvious over Rothschild and Chen.

5. Analysis of Claim 15

Claim 15 depends from claim 10, and further recites, "generate the hot link message as a Short Message Server (SMS) message." Ex. 1001, 19:65–66. Petitioner relies on its showing for claims 5 and 10 for claim 15. Pet. 15. Patent Owner argues that the Reply's admissions undermine its obviousness theory for claim 15.[5] Patent Owner points to Dr. Malek's

[5] Because the burden of proof of obviousness stays with Petitioner, we determine whether such burden is satisfied based on the full trial record.

testimony that SMS messages do not use HTML tags. PO Sur-reply 27. Patent Owner further points to Petitioner's statement in its Reply that "the Petition does not rely on the obviousness of using HTML with SMS messages." Pet. Reply 17. Patent Owner argues that Petitioner does not reconcile its theories for independent claims with its assertions that SMS would have been obvious.

We agree with Patent Owner that Petitioner has not clearly shown how claim 15 would have been obvious over the asserted references. Petitioner's assertions for the "generate a hot link message" limitation in independent claim 1 are based upon "Rothschild's formatting process [that] generates the email by compiling data – including the advertisement – into an email format." Pet. Reply 13. Petitioner requires an email embodiment, with HTML, to meet limitation [1.4]. *Id.* at 20–21 ("the combination of Rothschild and Chen represents the combination of known elements (e-mail advertisements) according to known methods (HTML) to yield predictable results.").[6]

However, the record establishes that SMS does not use HTML or any other formatting in sending a message. Ex. 2009 ¶¶ 57 (citing Ex. 1005, Fig. 10), 60 (citing Ex. 1005, Fig. 11), 64 ("[t]here is no formatting step for the SMS message, only for e-mail."), 76 ("SMS messages . . . do not use HTML"). The record further establishes that HTML code is relied upon as the teaching for the claimed instructions for rendering. Ex. 2011, 92:17–93:4. As stated by Dr. Houh, "Rothschild's interactive advertisements—implemented using HTML—teach 'instructions for rendering and displaying

[6] Our determination would not change under Petitioner's Rothschild-only ground, because that ground still relies upon email formatting and on HTML based on the state of the art as exemplified by Chen. *See* Pet. 32–33.

the hot link' and 'assignment information' as claimed." Ex. 1023 ¶ 27 (emphasis omitted). Because SMS messages are not formatted, Petitioner has not persuasively explained how a message sent by SMS would satisfy the "instructions for rendering and displaying the hot link" recited in claim 10 that are incorporated into dependent claim 15.

Petitioner provides an alternate assertion, "that the data of the image itself specifies what's going to be displayed," and therefore the data, e.g., a JPEG file, informs the receiving device how to display the image. Ex. 2011, 93:5–14; Pet. 34. Neither Petitioner nor Dr. Houh discusses this assertion in the context of an SMS message. Dr. Houh, during deposition, consistently refers to the image data as part of an HTML implementation. Ex. 2011, 89–94. Dr. Houh points to a three-line example of HTML code, "<img src= "graphic.jpg"> " in his original Declaration as an instruction for rendering and displaying. *Id.* at 89–91 (citing Ex. 1003 ¶ 59). Dr. Houh explains that the "image source equals graphic.jpg instructs the . . . renderer of this HTML to retrieve the file graphic.jpg." *Id.* at 91:9–13. Dr. Houh states that both the HTML and the data itself of the image provide the claimed instructions. *Id.* at 92:19–93:18. Dr. Houh clarifies that it is "all three lines" of the HTML code, not just the "graphic.jpg," that together tell the browser what to display and how to display in the link. *Id.* at 94:4–16.

Based upon Dr. Houh's testimony, Petitioner's alternate assertion is part of the HTML embodiment that Petitioner relies upon. Because Petitioner does not explain how an image displayed in an SMS would be rendered, and Dr. Malek attests that the '169 patent does not apply formatting to the SMS message, we determine that Petitioner has not

persuasively shown that the data of the image field itself provides the claimed instructions for displaying and rendering.

Based on the foregoing, Petitioner has not persuasively shown that Rothschild in view of Chen teaches instructions for displaying and rendering where the hot link message is generated as an SMS message as recited in claim 15. Consequently, Petitioner has not shown, by a preponderance of the evidence, that claim 15 would have been obvious over Rothschild in view of Chen.

E. Obviousness over Rothschild, Chen, and Saltanov

Claim 19 depends from claim 18, and further recites,

> wherein the GUI is a first GUI, and execution of the program code is to cause the user device to: generate a second GUI comprising a user selection GCE and a submission GCE, the user selection GCE to control selection of a set of other user devices to be provided with a hot link, and the submission GCE to control submission of the set of other user devices; and control transmission of another hot link message that includes an indication of the selected set of other user devices in response to selection of the submission GCE.

Petitioner asserts that Saltanov teaches a new window is displayed when a user forwards an email. Pet. 68–70 (citing Ex. 1006, 5:17–20, 5:53–57, Fig. 4B). Petitioner asserts that the new window includes fields for entering recipient users; i.e., a user selection GCE. *Id.* at 70 (citing Ex. 1006, Fig. 5B). Petitioner further asserts that Saltanov, in view of Rothschild's "Send" button that causes the email to be sent, teaches a submission GCE. *Id.* at 71–72 (citing Ex. 1003 ¶ 168; Ex. 1005, 9:57–61). Petitioner argues that a person having ordinary skill in the art would recognize that forwarding emails, as taught by Saltanov, would have the benefit of a larger audience for the advertisement of Rothschild, and that

both share application to Microsoft Outlook, indicating that their teachings would have been predictably combined. *Id.* at 67–68 (citing Ex. 1003 ¶ 161).

Patent Owner does not provide arguments separate from those advanced against claims 2 and 18. PO Resp. 27–28. Patent Owner applies its "control" argument applied to claims 1, 2, and 18 to argue that Petitioner does not show that the program code does not "control submission of the set of other user devices." PO Resp. 64. Patent Owner relies upon the same reasoning as discussed with respect to claims 1 and 2; i.e., that the program code requires a functionality to perform such control. *Id.* at 64–65. However, we are persuaded by Petitioner that the provision of "Send" buttons in the user interface provides the requisite program code functionality to control the submission of the set of other user devices, as a program functionality to permit the program to carry out the user's desire to send an email. For that reason, and the other reasons discussed in our analysis of claims 2 and 18, we determine that Petitioner has shown by a preponderance of the evidence that claim 19 would have been obvious over the combined teachings of Rothschild, Chen, and Saltanov.

F. Obviousness over Rothschild, Chen, Saltanov, and Maes

Claim 20 depends from claim 19, and further recites,

> wherein the second GUI comprises: a positive opinion GCE to control submission of a positive opinion of a content item; and a negative opinion GCE to control submission of a negative opinion of the content item.

Petitioner asserts that Maes teaches a user interface for providing positive and negative feedback. Pet. 76–78 (citing Maes' "thumbs-up" and "thumbs-down" symbols," Ex. 1008 ¶ 71). Petitioner asserts a combination in which a recipient of an email with an interactive advertisement forwards

that email to other recipients in a second GUI, where that second GUI includes feedback submission elements. *Id.*; *see also* Ex. 2009 ¶ 138. Petitioner asserts that the combination "yields the predictable result of providing advertisers with a mechanism to increase the appeal of their advertisements." Pet. 76 (citing Ex. 1003 ¶ 178). Petitioner asserts that Maes, like Rothschild, is in the field of email communication technology. *Id.* at 74 (citing Ex. 1008 ¶ 63).

Patent Owner argues that Petitioner does not explain how the combination would work to deliver feedback to advertisers. PO Resp. 66. Patent Owner argues that Dr. Houh did not consider which entities would receive the feedback from such symbols. *Id.* at 66–67 (citing Ex. 2011, 156:2–22). Patent Owner argues that Dr. Houh could not identify an example of an email having such feedback qualities, but instead, pointed to web page feedback. *Id.* at 67 (citing Ex. 2011, 154:19–155:12, 157:1–158:20; Ex. 2009 ¶ 140).

We agree with Petitioner that claim 20 does not require explication of which entities would receive feedback, so long as Petitioner's reason to combine is supported by a reasoned explanation. Pet. Reply 26–27. Rothschild desires that the selected advertisement "should appeal to the e-mail recipient." Ex. 1005, 3:24–25; Ex. 1003 ¶ 175. Petitioner describes Maes' feedback submission elements as extracting information about characteristics that appeal to or repulse the person, and using the extracted information to present the person with additional product choices. Pet. 73 (citing Ex. 1008 ¶ 24). Petitioner describes the purpose of Maes as helping a person choose a product from among many possible options. *Id.* (citing Ex. 1008 ¶ 24). In view of the foregoing, we agree that Petitioner has shown the

desirability of applying the feedback elements of Maes to the Rothschild-Chen-Saltanov combination.

We further determine that Petitioner has persuasively shown how the elements from Maes would be combined. Maes teaches that its user-system communication can be through email. Ex. 1008 ¶ 63. Dr. Houh attests that "mechanisms for providing feedback on advertisements [were] well-known." Ex. 1003 ¶ 177 (citing Ex. 1012, 26). Based on the foregoing, we are persuaded that Petitioner has shown the combinability of Maes' email-based advertisement system with Rothschild's email-based personal communication and advertising system so as to support Petitioner's asserted combination.

Patent Owner further argues that the cited art does not teach the "control submission of a positive [or negative] opinion" limitation. PO Resp. 65. Patent Owner relies upon the same reasoning presented for claim 19. *Id.* However, as discussed with respect to claim 19, we determine that the record supports Petitioner's assertion that the user interface, by limiting user action to buttons and menu items, controls the submission of positive and negative opinions. Pet. 77.

Based on the foregoing, we determine that Petitioner has shown by a preponderance of the evidence that claim 20 would have been obvious over the combined teachings of Rothschild, Chen, and Saltanov.

III. CONCLUSION

For the reasons discussed above, we conclude Petitioner has shown by a preponderance of the evidence that claims 1–14 and 16–22 of the '169 patent are unpatentable, and has not shown by a preponderance of the evidence that claim 15 of the '169 patent is unpatentable. Our conclusions are summarized in the table below.

Claims	35 U.S.C. §	Reference(s) / Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1–18, 21–22	103(a)	Rothschild[7]		
19	103(a)	Rothschild, Saltanov[8]		
20	103(a)	Rothschild, Saltanov, Maes[9]		
1–18	103(a)	Rothschild, Chen	1–14, 16–18, 21–22	15
19	103(a)	Rothschild, Chen, Saltanov	19	
20	103(a)	Rothschild, Chen, Saltanov, Maes	20	
Overall Outcome			1–14, 16–22	15

IV. ORDER

Accordingly, it is

ORDERED that Petitioner establishes by a preponderance of evidence that challenged claims 1–14 and 16–22 are unpatentable; and

ORDERED that Petitioner does not establish by a preponderance of evidence that challenged claim 15 is unpatentable; and

[7] We do not reach this ground because we address the ground that additionally includes Chen.
[8] We do not reach this ground because we address the ground that additionally includes Chen.
[9] We do not reach this ground because we address the ground that additionally includes Chen.

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.[10]

[10] 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. 16654 (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).

FOR PETITIONER:

Andrew Ehmke
Calmann Clements
Raghav Bajaj
HAYNES AND BOONE, LLP
Andy.ehmke.ipr@haynesboone.com
Calmann.clements.ipr@haynesboone.com
Raghav.bajaj.ipr@haynesboone.com

FOR PATENT OWNER:

David Alberti
Sal Lim
dalberti@feinday.com
slim@feinday.com

Michael Specht
Jason Fitzsimmons
Richard Bemben
Steven Pappas
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
mspecht-ptab@sternekessler.com
jfitzsimmons-ptab@sternekessler.com
rbemben-ptab@sternekessler.com
spappas-ptab@sternekessler.com