

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,¹
Petitioner,

v.

DODOTS LICENSING SOLUTIONS LLC,
Patent Owner.

IPR2023-00756
Patent 9,369,545 B2

Before GRACE KARAFFA OBERMAN, KEVIN C. TROCK, and
SHARON FENICK, *Administrative Patent Judges Patent Judges.*

FENICK, *Administrative Patent Judge.*

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

¹ The Board joined Apple Inc. as a party (Petitioner) to this proceeding.
Paper 28.

I. INTRODUCTION

A. *Background and Summary*

Samsung Electronics Co., Ltd. (“Petitioner”) filed a petition for *inter partes* review challenging claims 1–21 (“challenged claims”) of U.S. Patent 9,369,545 B2 (Ex. 1001 (“the ’545 patent”)). Paper 2 (“Pet.” or “Petition”). DoDots Licensing Solutions LLC (“Patent Owner”) timely filed a Preliminary Response. Paper 6. With the Board’s authorization (Ex. 1020), Petitioner filed a Preliminary Reply (Paper 7) and Patent Owner filed a Preliminary Sur-reply (Paper 8). After considering the record and evidence at that point, we concluded that the information in the Petition showed a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged, and we instituted an *inter partes* review. Paper 9.

Patent Owner filed a Patent Owner Response (Paper 22) followed by, upon authorization, a corrected Patent Owner Response (Paper 23, “PO Resp.”); Petitioner filed a reply (Paper 37) followed by, upon authorization, a corrected version (Paper 41, “Pet. Reply”). Patent Owner filed a sur-reply. Paper 44 (“PO Sur-reply”) and, with authorization, an errata sheet, Paper 47. On July 12, 2024, the parties presented oral arguments in a video hearing, and the Board entered a transcript into the record. Paper 48 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(b)(4). For the reasons set forth in this Final Written Decision, we determine that Petitioner demonstrates by a preponderance of evidence that the challenged claims are unpatentable.

B. Real Parties in Interest

Petitioner identifies Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc., as the real parties in interest. Pet. 109.

Patent Owner identifies only itself as the real party in interest. Paper 3 (Patent Owner’s Mandatory Notices), 1.

Apple Inc. (see note 1) identifies only itself as a real party in interest. See Paper 28, 2.

C. Related Matters

Petitioner identifies the following proceeding as a related matter: *DoDots Licensing Solutions LLC v. Samsung Electronics Co., Ltd.*, 6:22-cv-00535 (W.D. Tex.) (“the related district court litigation”). Pet. 109. Petitioner additionally notes that the patent was the subject of *DoDots Licensing Solutions LLC v. Lenovo*, 1-18-cv-00098 (D. Del.) and *inter partes* review proceeding IPR2019-00988 (“the -00988 IPR”). *Id.* The Final Written Decision in the -00988 IPR (Ex. 1012) was affirmed by the Federal Circuit in *Lenovo Holding Co., Inc. v. DoDots Licensing Sols. LLC*, No. 2021-1247, 2021 WL 5822248 (Fed. Cir. 2021) (Ex. 1014).

Patent Owner also cites Western District of Texas case 6:22-cv-00535 as related and additionally identifies as related *DoDots Licensing Solutions LLC v. Apple Inc.*, No. 6:22-cv-00533 (W.D. Tex.). Paper 3, 1–2.

D. The ’545 Patent

The title of the ’545 patent is “Accessing and Displaying Network Content.” Ex. 1001, code (54). The ’545 patent discloses, in part, a method for accessing and displaying network content. *Id.* at code (57). This component, a networked information monitor or “NIM” is a “fully configurable frame with one or more controls” with content optionally presented through the frame. *Id.* at 4:54–59. When a NIM is opened by a

user, the frame is presented in the user's display, and network content is retrieved and presented in a viewer enclosed by the frame. *Id.* at 21:28–41. The network content may be identified via URLs (uniform resource locators) included in the NIM. *Id.* at code (57), 21:28–34, 24:19–21. The specification describes that the NIM “stands in contrast to present web browsers, which are branded by the browser vendor and which have limited means by which to alter the controls associated with the browser.” *Id.* at 4:59–63.

A NIM includes a viewer for viewing content and a frame for providing user functionality, such as functions and controls (such as a “resize” control) for manipulating the visual manifestation of the NIM. *Id.* at 17:7–52, Fig. 9. The NIM template includes the definition of the frame and the layout and identity of the controls provided. *Id.* at 6:34–37, 22:4–8, 22:34–57, 23:49–56.

A server may store a number of NIM templates and provide a NIM template to a client upon request. *Id.* at 6:25–33, 14:50–65.

E. Illustrative Claims

Claims 1 and 16 are the only independent claims among the challenged claims. Claims 1 and 16 are reproduced below with Petitioner's limitation designations added in brackets for ease of reference:

1. [1pre] A computer-implemented method of obtaining content over a network and displaying the content to a user, the method being implemented in a client computing device in operative communication with a server over a network, the client computing device including electronic storage, a display, and one or more processors configured to execute one or more computer program modules, the method comprising:

- [1.1] transmitting a request to the server over the network, the request requesting networked information monitor template;
- [1.2] receiving the requested networked information monitor template from the server over the internet, the requested networked information monitor template having been transmitted from the server over the network responsive to the transmitted request, the networked information monitor template comprising:
- [1.3] a definition of a viewer graphical user interface within which content in a web browser-readable language may be presented on the display of the client computing device; and
- [1.4] a definition of a first content element for the networked information monitor template, the definition of the first content element referencing a first network location from which the first content element for the networked information monitor template is served over the network;
- [1.5] responsive to instructions included in the requested networked information monitor template, presenting the viewer graphical user interface defined by the networked information monitor on the display of the client computing device separate from and outside of any other graphical user interface that includes user controls for specifying the first network location from which the first content element for the networked information monitor is served over the network;
- [1.6] responsive to instructions included in the requested networked information monitor template, transmitting over the network a first content request to the first network location referenced by the definition of the first content element for the networked information monitor template;
- [1.7] receiving, over the network, the first content element transmitted responsive to the first content request;

[1.8] presenting the received the first content element in the viewer graphical user interface defined by the networked information monitor template, wherein the definition of the viewer graphical user interface and/or the first content element define all controls for enabling a user to interact with the first content element through the viewer graphical user interface.

Ex. 1001, 42:22–43:4.

16. [16pre] A computer-implemented method of obtaining and displaying content obtained over a network to a user on a client computing device, the method being implemented in the client computing device, the client computing device including electronic storage, a display, and one or more processors configured to execute one or more computer program modules, the method comprising:

[16.1] executing on the client computing device client parser, wherein the execution of the client parser results in the client computing device:

[16.2] transmitting over the network a first content request to a first network location referenced by a definition of a first content element in a networked information monitor template that is readable by the client parser;

[16.3] receiving, over the network, the first content element transmitted responsive to the first content request;

[16.4] presenting a viewer graphical user interface defined by the networked information monitor template on the display of the client computing device and wherein the viewer graphical user interface defined by the networked information monitor template is presented separate from and outside of any other graphical user interface that includes user controls for specifying the first network location from which the first content element for the networked information monitor is served over the network; and

[16.5] presenting the received content element within the viewer graphical user interface defined by the networked

information monitor template, wherein the definition of the viewer graphical user interface and/or the first content element define all controls for enabling a user to interact with the first content element through the viewer graphical user interface.

Id. at 44:32–64.

F. Art and Asserted Grounds

Petitioner relies on the following references:

Reference	Description	Exhibit
Beer	US 5,793,368	Ex. 1007
Krishna et al. (“Krishna”)	US 6,055,522	Ex. 1021
Buchholz et al. (“Buchholz”)	US 6,088,340	Ex. 1009
Brown et al. (“Brown”)	US 6,278,448 B1	Ex. 1005
Wecker et al. (“Wecker”)	US 6,449,638 B1	Ex. 1006
Shimada et al. (“Shimada”)	US 6,789,263 B1	Ex. 1008
Darnell	Rick Darnell, HTML 4 UNLEASHED (1st Ed., 1997)	Ex. 1011

Petitioner asserts that the challenged claims would have been unpatentable on the following grounds:

Claims Challenged	35 U.S.C. § ²	Reference(s)/Basis
1–4, 6–10, 13–15	103(a)	Brown, Wecker
5, 11, 12, 16–21	103(a)	Brown, Wecker, Beer
1–4, 6–7, 9–10, 13–15	103(a)	Shimada, Buchholz
5, 8, 12	103(a)	Shimada, Buchholz, Darnell
11, 16–21	103(a)	Shimada, Buchholz, Krishna

Pet. 1.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the claims at issue have an effective filing date prior to the effective date of the AIA’s amendments to 35 U.S.C. § 103, we apply the pre-AIA version of § 103 in this Decision. See Ex. 1001, codes (22), (63).

II. 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”)). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

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, 406 (2007). The question of obviousness is resolved based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

“To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner 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). We analyze the asserted grounds with the principles stated above in mind.

B. Level of Ordinary Skill in the Art

Petitioner cites the declaration testimony it submitted of Dr. Douglas C. Schmidt (Ex. 1003) and asserts:

A person of ordinary skill (“POSITA”) relating to the subject matter of the ’545 Patent would have had (1) a bachelor’s degree in computer science, computer engineering, electrical engineering, or a related field, and (2) at least three years of corresponding industry work experience. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.

Pet. 5 (citing Ex. 1003 ¶¶ 20–21). Patent Owner, citing our prior decision in the -00988 IPR and the declaration testimony it submitted of Dr. Ted Selker (Ex. 2010) states:

A POSITA would have a bachelor’s degree in Computer Engineering, Computer Science, Electrical Engineering, or a related field and have three or more years of corresponding industry work experience.

PO Resp. 9 (citing Ex. 1012, 8; Ex. 2010 ¶¶ 24–25).

The parties have not addressed the differences in these definitions. We adopt Patent Owner’s formulation of the level of skill in the art, but on the present record we would reach the same determination under Petitioner’s formulation of the level of skill.

C. Claim Construction

1. “networked information monitor”

The term “networked information monitor” (“NIM”) appears in each of independent claims 1 and 16. In the -00988 IPR, we construed this term

as meaning “a fully configurable frame, with one or more controls, through which content is presented to the user.” Ex. 1012, 10.

Both Petitioner (Pet. 3–4) and Patent Owner (PO Resp. 9) agree with this construction, and we adopt it herein.

2. “*networked information monitor template*”

The term “networked information monitor template” (“NIM template”) also appears in each of independent claims 1 and 9. In the the -00988 IPR we construed this term as meaning “a data structure that defines the characteristics of a NIM, including the NIM frame, view, and control characteristics, and that excludes executable applications/compiled code.” Ex. 1012, 11–19. This construction was affirmed by the Federal Circuit. Ex. 1014, 5–9.

Both Petitioner (Pet. 4–5) and Patent Owner (PO Resp. 9) agree with this construction and we adopt it herein.

3. *No Additional Terms*

Neither party proposes additional terms for construction and no other constructions are necessary to resolve the controversy before us. *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 of Claims 1–4, 6–10, and 13–15 over Brown and Wecker*

Petitioner contends that claims 1–4, 6–10, and 13–15 would have been obvious over Brown and Wecker. Pet. 8–50. Patent Owner disputes this. PO Resp. 9–45; PO Sur-reply 2–17. Patent Owner additionally presents arguments and evidence regarding secondary considerations, and argues that these demonstrate that the challenged claims would not have been obvious.

PO Resp. 74–84; PO Sur-reply 23–30. Petitioner disputes this. Pet. Reply 31–37.

1. Brown

Brown describes a “method of creating a composite desktop built from Web content retrieved from one or more Web sites.” Ex. 1005, code (57).

Brown describes a composite desktop 302 that:

includes one or more desktop components. A desktop component is a distinct geometric region that displays a single piece of Web-based content. . . . [A]ctive desktop component 308 corresponds to a component retrieved locally or from a remote computer. . . . The component may be selected from a Web page, within which the component is embedded. . . . The Web page desktop component 310 corresponds to an entire Web page that was selected for inclusion within the composite desktop 302.

Id. at 7:21–48. The composite desktop and its components are illustrated in Figure 3A, a pictorial representation of a user interface desktop, which is

reproduced below.

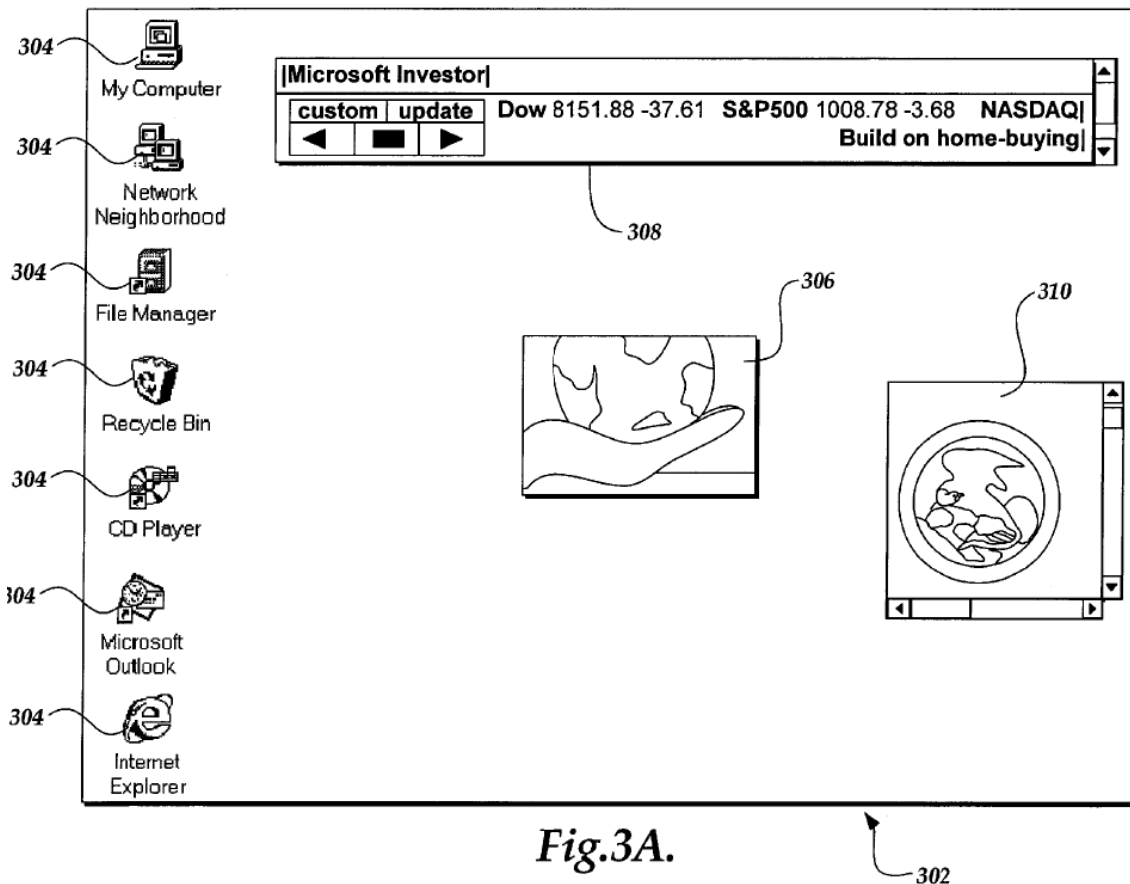


Figure 3A illustrates desktop 302, icons 304, static desktop component 306, active desktop component 308, and Web page desktop component 310. *Id.* at 3:61–62, 7:9–48.

Icons 304 of Figure 3A are displayed in a first transparent window (the “icon layer”) of composite desktop 302 and desktop components (306, 308, 310) are displayed in a second simultaneously-displayed window, the HTML window/layer. *Id.* at 7:66–8:9. An exemplary 40-line file corresponding to the HTML layer of desktop 302 depicted is provided in the specification. *Id.* at 11:29–12:43. Lines 10 through 13 of this file “include HTML instructions that correspond to the Web page desktop component 310.” *Id.* at 13:14–15. Lines 14 through 17 of this file “comprise HTML

instructions that describe the active desktop component 308.” *Id.* at 12:61–62. These “include a URL specifying an Internet location where additional HTML code corresponding to the active desktop component 308 resides.” *Id.* at 13:1–4.

These lines 10 through 17 are:

10. <IFRAME id=7 MARGINWIDTH=0
MARGINHEIGHT=0 name=“DeskMovrW”
src=“http://www.uspto.gov/”

11. resizable=“XY”

12. subscribed_url=“http://www.uspto.gov/”

13. frameborder=0 style=“BACKGROUND: transparent;
position:absolute; LEFT:620; TOP:254; WIDTH:156;
HEIGHT:150; Z-INDEX:1014”></IFRAME>

14. <IFRAME id=8 MARGINWIDTH=0
MARGINHEIGHT=0 name=“DeskMovrW”
src=“http://www.microsoft.com/ie/ie40/gallery/ticker.htm”

15. resizable=“XY”

16. subscribed_url=“http://www.microsoft.com/ie/ie40/gallery/
cdf/g_stock.cdf”

17. frameborder=0 style=“BACKGROUND: transparent;
position:absolute; LEFT:178; TOP:26; WIDTH:516;
HEIGHT:57; Z-INDEX:1016”></IFRAME>

Id. at 11:59–12:10.

2. Wecker

Wecker describes a content provider, such as a web server, which provides data from a database or other data source. Ex. 1006, 2:62–3:7. Wecker describes that the content may be provided in a standard format “such as HTML, JPEG, GIF, WAV, etc.” *Id.* at 3:1–3.

Wecker uses the term “mobile channel” to refer to “[a] single portion of content (such as a web page or web site)” and further explains that a

mobile channel “is a self[-]describing web site that contains all the information necessary for efficient download of web content to [a] mobile device.” *Id.* at 3:6–10. Wecker teaches that, preferably, a mobile channel will include a CDF file, a set of script files to render the channel, and a set of data files to be rendered. *Id.* at 3:3–6, 3:10–25, 10:25–18:56. “The content structure file is read to ascertain which script in the script file is associated with data to be rendered. The data from the data file is retrieved and the associated script file is executed to render the data.” *Id.* at code (57), 3:14–25.

The Wecker system allows content to be delivered and updated “in small segments of data instead of full HTML pages” to “make[] it efficient and economical to update time-critical information.” *Id.* at 10:41–51.

Wecker specifically describes that “[b]y separating the script from the data in the web content, web content can be transmitted to [a] mobile device . . . over very low bit rate channels.” *Id.* at 4:53–62. Because script and data files are separate, and script files may be large, the user of a mobile device can more efficiently receive updated content (data file) information with more frequency than required for updated script information. *Id.* at 4:53–62.

Wecker additionally describes the use of mobile channels on a desktop computer. *Id.* at 3:58–4:13, 11:54–58, 13:61–14:17, 17:26–30, 18:57–64. Wecker notes that, in a desktop context, since script files need less updating than data files, a desktop user can view web content on the desktop using only small amounts of bandwidth for the incremental updating of data files. *Id.* at 4:8–13.

3. *Combination of Brown and Wecker*

Petitioner argues that one of ordinary skill in the art would have used certain elements taught by Wecker in implementing Brown’s desktop components. Pet. 11–14.

Petitioner argues that one of ordinary skill in the art would have used Wecker’s disclosure of a cache for storage in the Brown system, and would have implemented Brown’s desktop components using Wecker’s teaching of mobile channels. *Id.* at 11. Petitioner contends that Wecker’s “script files” are similar in objective to the HTML instructions defining the Brown desktop components, and that Wecker’s desktop computer would have similar features to the composite desktop of Brown. *Id.* at 12 (citing Ex. 1005, 12:61–62; Ex. 1006, 3:17–20; Ex. 1003 ¶¶ 37–38). Petitioner additionally argues that one of ordinary skill would have used Wecker’s cache memory to store the files for the mobile channels / desktop components in the combination. Pet. 15–17 (citing Ex. 1005, Fig. 1; Ex. 1006, 8:34–39, Fig. 6; Ex. 1003 ¶ 45).

Petitioner contends that Brown and Wecker are each generally directed to accessing and viewing Internet content, and so one of ordinary skill in the art would have considered Wecker’s disclosure in the context of Brown’s system. *Id.* at 11 (citing Ex. 1005, code (57), 13:4–13; Ex. 1006, code (57), 3:1–16; Ex. 1003 ¶ 35). Petitioner contends that the proposed combination “is merely the application of known techniques (e.g., rendering content using templates/script files) to a known structure (e.g., Brown’s composite desktop) to yield predictable results” and one of ordinary skill would have had a reasonable expectation of success in this application. Pet. 13 (citing Ex. 1003 ¶ 40; *KSR*, 550 U.S. at 417). Petitioner details similarities between Brown and Wecker, such as the described use of the

same operating system. Pet. 13 (citing Ex. 1005, 6:26–32; Ex. 1006, 8:15–21; Ex. 1003 ¶ 40). Additionally, to the extent that features in Wecker relate to mobile devices, Petitioner cites Brown’s description that its techniques could be practiced in hand-held devices. *Id.* at 12–13 (citing Ex. 1005, 4:44–49; Ex. 1003 ¶ 39). Petitioner provides the following motivation for the combination in which features of Wecker are used in the Brown system: “to improve data transfer times, increase usability, standardize interfaces across different devices, [and/or] reduce client-side storage requirements.” *Id.* at 14 (citing Ex. 1003 ¶ 41).

Patent Owner presents several arguments against the proposed combination of Brown and Wecker. First, Patent Owner argues that Brown and Wecker have disparate purposes – characterizing Brown as pertaining to a composite desktop that integrates “desktop icons and a web page,” and Wecker as addressing the issue of delivering a complete web page to a mobile device screen. PO Resp. 17 (citing Ex. 2010 ¶¶ 137–144, 154). Patent Owner argues that Wecker’s more complex methods would not have been used with Brown’s computer, which it argues did not have the limited capabilities of a mobile device. *Id.* at 17–18 (citing Ex. 2010 ¶¶ 149–152); PO Sur-reply 10.

Patent Owner contrasts the composite desktop of Brown with the mobile channel of Wecker. *Id.* at 17 (citing Ex. 1005, 6:33–41; Ex. 1006, code (57), 2:8–10, 4:47–51; Ex. 2010 ¶¶ 145–148). Patent Owner asserts that the desktop of Brown is a graphical user interface to a computer operating system, while the desktop of Wecker is a type of computer. *Id.* at 20 (citing Ex. 2010 ¶¶ 145–146, 158). Moreover, Patent Owner argues, Wecker’s script files/templates build an HTML page to display a channel on a mobile device with no overlay, a different objective than Brown’s HTML

document, which creates a web page to be displayed with the graphical user interface of the computer with icons. *Id.* at 20–21 (citing Ex. 2010 ¶¶ 153, 165–166).

Patent Owner contends that Petitioner has not provided an explicit analysis, with articulated reasoning and rational underpinnings, in support of its combination, as required. PO Sur-reply 5–6. Patent Owner additionally argues that Brown and Wecker could not be combined for a variety of reasons including: because Brown’s components contain user-viewable content, because Brown’s HTML instructions for Brown’s components are part of a larger DESKTOP.HTT file, because that file is generated in part from user choices, and because Wecker receives content in three files. *Id.* at 8–11 (citing, *inter alia*, Ex. 2010 ¶¶ 45, 46, 50, 51, 96, 160, 164–166, 168).

We determine that Petitioner has shown by a preponderance of the evidence that one of ordinary skill in the art would have been motivated to make the proposed combination of Brown and Wecker with a reasonable expectation of success.³ Brown and Wecker each describe the access and display of web content outside of the then-traditional browser model, with each describing subscribing to web content in a way which periodically new content is retrieved and updated. Ex. 1005, 13:4–8; Ex. 1006, 4:3–6, 4:53–62. While Wecker provides extensive description relative to a mobile device and Brown does not focus on a mobile device, Petitioner is correct in its contentions that Wecker describes the use of a desktop computer for viewing its mobile channels and that Brown specifically discusses that, while the

³ With respect to Patent Owner’s contention that the Reply introduced new arguments and evidence with respect to this combination (PO Sur-reply 4), we note that we make this determination relying only on the evidence and argument in the Petition.

device it describes is “preferably a general purpose personal computer,” the device may also be a hand-held device. Ex. 1005, 4:32–49; Pet. 12, 13 (citing Ex. 1005, 4:44–49; Ex. 1006, 3:63–66, 4:3–6; Ex. 1003 ¶¶ 37, 39); see Ex. 1006, 4:8–13 (describing providing a desktop user with content while requiring small amounts of bandwidth).

While Patent Owner’s arguments focus on its assertions regarding complexity and impossibility in the combination of Brown and Wecker, Petitioner’s argued combination involves the application of Wecker’s subscription to a mobile channel which provides for periodic retrieval of updated mobile channel data, specifically including new and updated script files, separate from data files, for use in implementing Brown’s desktop components. Pet. 11–15, 25–26 (citing Ex. 1006, 3:8–20, 3:63–66, 4:3–6). With reference to the combination of these elements, after review of the record we do not agree with Patent Owner’s arguments that one of ordinary skill in the art would not have had a reasonable expectation of success in implementing Wecker’s independent channels in Brown’s composite desktop, even given Brown’s use of a single file that includes the HTTP instructions for more than one desktop component. See PO Resp. 17–21. We determine that Petitioner adequately shows Brown’s capacity to deal with individual desktop components while using one file, because Brown’s desktop shell allows the addition of additional desktop components to the composite desktop. Pet. 11, 51 (citing Ex. 1005, 7:21–23; Ex. 1003 ¶ 35). We agree that the mobile channel script files in Wecker are similar in objective to the HTML instructions in Brown. After considering the entirety of the record, we credit Dr. Schmidt’s testimony that one of ordinary skill in the art would have found the use of script files as in Wecker in the structure

of Brown could be accomplished with a reasonably high expectation of success. Ex. 1003 ¶¶ 37, 38.

Additionally, against the backdrop of the level of skill in the art (as determined above, Section II.B, and as exemplified by the subject patent and the prior art asserted), the record supports the conclusion that the use of the cache and the mobile channel script files from Wecker in Brown could have been accomplished with a reasonable expectation of success. *KSR*, 550 U.S. at 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”). On this record, Patent Owner’s argument that detail about the changes necessary to accommodate Wecker’s mobile channel files in Brown’s composite desktop is inconsistent with the “well-established” proposition “that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements.” *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012).

4. *Analysis of Claim 1*

a) *Preamble*

Petitioner argues that, to the extent the preamble is limiting, it is taught or suggested by Brown and Wecker. Pet. 14–20. We focus on the teachings of Brown. Petitioner argues Brown teaches “a ‘computer-based method (‘computer-implemented method’) of creating a composite desktop built from Web content,’ and that ‘an operating system user interface shell program executes on a computer, preferably a general purpose personal computer.’” *Id.* at 14 (quoting Ex. 1005, 2:54–56, 4:32–34). Petitioner further cites Dr. Schmidt’s opinion that one of ordinary skill “would have understood or found obvious that ‘a computer-based system’ and ‘personal computer’ includes a ‘client computing device,’ as a computer is frequently referred to as a ‘client.’” Ex. 1003 ¶ 43 (citing 2:54–57, 4:32–40, claim 15);

Pet. 15. According to Dr. Schmidt, one of ordinary skill “also would have understood that Brown’s ‘Web content’ is ‘content over a network.’”

Ex. 1003 ¶ 43 (citing Ex. 1005, 2:54–57).

For “the client computing device including electronic storage” recited in the preamble, Petitioner argues that Brown discloses that the “general purpose computing device in the form of a conventional personal computer” includes a “system memory.” Pet. 15 (quoting Ex. 1005, 4:55–58).

According to Dr. Schmidt, one of ordinary skill “would have understood or found obvious that a system memory is a form of ‘electronic storage’ because a POSITA would have understood that memory is an example of electronic storage.” Ex. 1003 ¶ 45; Pet. 15.

Petitioner argues that Brown teaches the recited “display” in the monitor⁴⁷ discussed in Brown. Pet. 17 (citing Ex. 1005, 5:38–39; citing *id.* Fig. 1 (element 47)) (emphasis omitted). With reference to the recited “processors configured to execute one or more computer program modules,” Petitioner cites Brown’s “HTML viewer” and “composite desktop shell” which Petitioner argues access and execute the HTML instructions that define the desktop components.” *Id.* at 18 (citing Ex. 1005, 6:26–40; Ex. 1003 ¶ 47). Petitioner further cites Dr. Schmidt’s opinion that one of ordinary skill “would have understood or found obvious that both the ‘HTML viewer’ and ‘composite desktop shell’ are ‘executed’ by ‘one or more processors’ because processors were known in the art to execute such programs.” Ex. 1003 ¶ 48; Pet. 19–20.

These contentions, which Patent Owner does not dispute, are supported by evidence of record discussed above.

Accordingly, without determining whether the preamble is limiting, we find that Brown teaches the preamble of claim 1.

b) “*networked information monitor*” and “*networked information monitor template*”

Before an analysis of the balance of claim 1, we address the dispute between the parties as to whether “networked information monitors,” and “networked information monitor templates” are taught or suggested by Brown. See Section II.C.1 and 2.

(1) “*networked information monitor*” / NIM

(a) *Parties’ Positions*

Petitioner argues that Brown’s composite desktop contains desktop components, and that one of ordinary skill in the art would have found these to teach or suggest the claimed NIMs. Pet. 20–22 (citing, *inter alia*, Ex. 1003 ¶¶ 50–53). Petitioner quotes Brown’s disclosure that its desktop components are “implemented as floating frames” that “can be positioned anywhere on a screen, and can be “resized if desired.” *Id.* at 20 (quoting Ex. 1005, 7:24–26, 12:64–65). Because frame characteristics and controls can be specified, Petitioner argues, the desktop components are “fully configurable,” as required by the claim construction of NIM. *Id.* at 21 (citing Ex. 1001, 30:34–36 as informing the proper extent of “fully configurable”). With respect to including “one or more controls,” Petitioner asserts that Brown’s Figure 3A shows desktop components with different frame controls, such as horizontal and vertical scroll bars. *Id.* at 21, 39–40 (citing Ex. 1005, Fig. 3A (element 310); Ex. 1003 ¶¶ 51, 88). And, with respect to a desktop component as a “frame . . . through which content is presented to a user” (per the claim construction), Petitioner argues that Brown teaches that desktop components are used to present Web-based content to a user. *Id.* at 21 (citing Ex. 1005, 7:22–23 (“A desktop

component is a distinct geometric region that displays a single piece of Web-based content.”), Fig. 3A; Ex. 1003 ¶ 52).

Patent Owner argues that the desktop components taught by Brown are not “fully configurable frame[s] . . . through which content is presented to the user,” as required by our construction of NIM. PO Resp. 36–39. Patent Owner argues that, in Brown, “[t]he content for each desktop component appears exactly as it appears on the original web page from where the content is received,” and that, “[f]or example, there is no HTML in Brown that can make the stock ticker in desktop component 308 or the USPTO website in desktop component 310 appear any differently than they appear on the web page from which [they] came.” *Id.* at 37. Patent Owner contends that the ’545 patent, in contrast, describes customization of a NIM such that web content can be presented “in different ways” depending on how a NIM developer wants them to appear. *Id.* at 36–38 (citing Ex. 2054⁴, 10:55–57, 11:11–15, 11:65–67, 12:20–45, 16:61–65; Ex. 2010 ¶ 106). Simply allowing for a frame to be moved around or resized, Patent Owner argues, does not make a frame “fully configurable.” *Id.* at 37. According to Patent Owner, Brown “expressly gives Internet Explorer 4.0, not the developer, full authority over its frames/components.” PO Sur-reply 12.

Additionally, Patent Owner argues our construction requires “configurable control(s)” must be included in the NIM. PO Resp. 38–39 (citing Ex. 2010 ¶¶ 108–109). But, Patent Owner argues, Petitioner only

⁴ Exhibit 2054 is U.S. Patent 8,020,083 B1 (“the ’083 patent”). Patent Owner argues that, because the Federal Circuit found that the “Dot” and “Dot definition” in the ’083 patent is analogous to the terms NIM and NIM template in the ’545 patent, “any discussion in that patent is also applicable” in this proceeding and that the specification of the ’083 patent is “highly relevant” to the ’545 patent. PO Resp. 6 n.1, 39.

shows controls in Brown that are external to, and defined separately from, the NIM. *Id.* at 38–39 (citing Ex. 2054, 7:19–23, 9:61–63, 10:11–19, 13:47–48, 15:26–29 (“The [NIM template] contains data used to . . . specify and lay out the controls.”), 24:11–14, Fig. 8; Ex. 2010 ¶¶ 106, 110–112). Patent Owner also argues, with reference to NIM templates, that, because the NIM template pointed to by Petitioner does not “define a control,” the NIM cannot have a control. *Id.* at 39–40 (citing Ex. 2010 ¶¶ 116–117).

(b) Our Determination Regarding Brown and the Claim Construction of “networked information monitor”

Our determination is that Petitioner has shown by a preponderance of the evidence that Brown’s desktop component teaches or suggests a NIM in accordance with our claim construction of that term.

Our construction requires “a fully configurable frame” and we decline to make the determination that Patent Owner urges, that the construction requires that the *content* presented to the user must be fully configurable. *See* PO 36–37. Rather, the construction derives from the specification, immediately followed by the language: “[t]he fully configurable frame utilized in accordance with the invention stands in contrast to present web browsers, which are branded by the browser vendor and which have limited means by which to alter the controls associated with the browser.”

Ex. 1001, 4:59–63); Ex. 1012, 9–10 (citing Ex. 2054, 5:40–43). Patent Owner itself quotes a portion of the specification of the ’083 patent that describes the “limiting factors” (PO Resp. 6) of prior art browsers, namely “controls associated with a browser are not fully configurable” and prior art browsers “provide very limited control to a user or content provide[r] to alter the frame and controls provided by the browser window” (Ex. 2054, 2:47, 2:57–59 (quoted at PO Resp. 6–7)). The Federal Circuit also quoted the

'545 patent's disclosure contrasting the "fully configurable" NIM with then-current web browsers (branding and limited alteration of browser controls) in its decision affirming the claim construction of "NIM template" in the -00988 IPR. Ex. 1014, 3 (quoting Ex. 1001, 4:56–59).

Patent Owner's argument regarding the configurability of the presented *content* (as opposed to the frame) asks us to consider the '545 patent specification's disclosure that "frame shape and content may be wholly defined by the Dot developer." PO Resp. 36–37, citing Ex. 2054 10:55–57. However, we do not agree that this statement requires that the developer of the NIM must be able to make the content within the frame appear "differently" from the source, as argued; rather, in context, this statement again relates to the appearance of the frame. In particular, we find the word "frame" in the phrase "frame shape and content" modifies both "shape" and "content" so that the phrase refers to both the shape and the content *of the frame*, rather than to frame shape and, separately, the content presented within the frame. See Ex. 2054, 10:46–55 ("The frame . . . defines that area . . . in which data may be rendered [and] may contain rendered Internet data The appearance of the frame (if any) together with data that is displayed therein is the visible instantiation of the [NIM]. Any Internet data or media data may be contained within the frame."). Neither Patent Owner nor its declarant provides any additional discussion or support for the assertion that the content received from a website (if that is the content presented in the frame) must be capable of being displayed differently than on the website. Ex. 2010 ¶¶ 105–114.

We instead credit Dr. Schmidt's testimony that Brown's desktop components are fully configurable frames because Brown describes that the desktop components may be positioned at any location on the desktop and

can be resized, and Brown presents examples of desktop components with different frame controls, in its depiction of two desktop components, one with horizontal and vertical scroll bars and one with no such controls.

Ex. 1003 ¶ 51 (citing Ex. 1005, 7:24–26, 12:64–65, Fig. 3A (elements 306, 310)).

Additionally, we also do not find compelling Patent Owner’s argument that our construction of “a fully configurable frame with one or more controls . . .” requires “configurable control(s)” and that the controls identified in Brown are not sufficiently configurable to meet this requirement. PO Resp. 38. Rather, we understand portions of the ’083 specification cited by Patent Owner to describe, again with reference to then-current browsers, the problem of configurability relating to the appearance of the frame and the restrictions on the controls of the frame – that the vendor of the browser brands the browser in which content appears and regulates the controls associated with the frame. *See, e.g.*, Ex. 2054, 2:45–49 (quoted at PO Resp. 6–7); Ex. 1001, 1:65–67 (“There is a growing desire for content providers to . . . fully brand and control the frame in which the content appears.”). For the same reason, we do not agree with Patent Owner that all data related to a control must be present in the NIM template, rather than elsewhere, for a frame to be fully configurable. *See* PO Resp. 39–40. Thus, we determine that the availability of different controls to the developer of a NIM (e.g., horizontal and vertical scroll bars if desired, as in Brown, Fig. 6A), teaches or suggests “one or more controls” as required by our claim interpretation of a NIM.

For similar reasons, we credit Dr. Schmidt’s testimony that Brown’s desktop components are fully configurable because they can be positioned at any location and have specified controls. Ex. 1003 ¶ 51, as it is consistent

with the descriptions in the specification, as noted above. In contrast, also in light of the descriptions in the specification, we give less credit to Dr. Selker's testimony that "fully configurable" requires that the content presented to the user must be modifiable, that the controls must be developed by the NIM developer and implemented in the NIM template, and that setting position, size, or scrolling could not be a frame control. Ex. 2010 ¶¶ 106, 107, 109–112.

In light of these determinations, we find that Brown teaches that its desktop components are floating frames that can be positioned anywhere on the screen. Ex. 1005, 7:24–26, 12:61–64. These frames have frame controls. *Id.* at Fig. 3A (elements 306, 308). The frames display a piece of web-based content to a user. *Id.* at 7:22–23, Fig. 3A.

Accordingly, we find that Brown's desktop components teach or suggest a NIM in accordance with our claim construction. Additional recitations regarding the NIM are addressed below, in our discussion of the recited limitations of claim 1.

(2) "*networked information monitor template*" / *NIM template*

(a) *Parties' Positions*

Petitioner contends that Brown teaches or suggests NIM templates in the HTML instructions Brown describes as defining these desktop components. Pet. 22–24 (citing, *inter alia*, Ex. 1003 ¶¶ 54–60). Petitioner argues that HTML instructions are generated from data stored in a registry, and that these define the characteristics of the NIM. Pet. 22–24 (citing Ex. 1005, 11:39–12:43, 14:7–8; Ex. 1003 ¶ 54). Brown's example of a "DESKTOP.HTT" file contains HTML code used to create the HTML layer of the desktop that includes the desktop components. Ex. 1005, 11:29–30, 11:39–12:43. Petitioner notes Brown's disclosure that this file contains the

HTML instructions that describe Figure 3A's exemplary desktop components 306, 308, and 310. Pet. 23 (citing Ex. 1005, 12:44–46, 12:61–62, 13:14–15; Ex. 1003 ¶ 55).

Referring to this exemplary HTML code, Petitioner argues that the definition of “the characteristics of a NIM, including the NIM frame, view, and control characteristics,” as required by the claim construction of NIM template, are taught in Brown. *Id.* at 23–24 (citing Ex. 1005, 11:56–12:10; Ex. 1003 ¶¶ 56–58). Specifically, Petitioner argues that the NIM frame characteristics are defined in the HTML instructions using the “IFRAME” HTML tag. *Id.* at 23 (citing Ex. 1005, 12:65–66; Ex. 1003 ¶ 56). Petitioner argues that the visual features of the desktop component (which Petitioner argues are view characteristics) are defined in the HTML instructions including the “frameborder” and “BACKGROUND” tags. *Id.* at 23 (citing Ex. 1005, 11:56–12:10; Ex. 1003 ¶ 56). Petitioner argues that the control characteristics of the desktop component are defined in the HTML instructions by the “resizable” instruction that allows a developer to designate a desktop component as resizable. *Id.* at 23–24 (citing Ex. 1005, 7:57–59; Ex. 1003 ¶ 58). As required by the construction, Petitioner asserts that HTML instructions are not an application or compiled code, but rather a markup language. *Id.* at 24 (citing Ex. 1003 ¶ 59). Thus, Petitioner concludes Brown teaches or suggests a NIM template in accordance with our claim construction. *Id.* (citing Ex. 1003 ¶ 60).

Patent Owner argues that resizability is not a “control characteristic” but rather a frame characteristic. PO Resp. 25–29. In particular, Patent Owner contends that the “resizable” instruction only indicates that the frame has the capability of being resized, which Patent Owner contends is a frame characteristic and not a control characteristic. *Id.* at 25 (citing Ex. 2010

¶¶ 64, 58, 72–74). In support of this contention, Patent Owner cites U.S. Patent 7,660,868 (Ex. 2015, “the ’868 patent”), which is incorporated by reference in the ’545 patent specification. *Id.* at 25–26 (citing Ex. 2015, 36:12–15, Fig. 28B; Ex. 2010 ¶¶ 65–66); Ex. 1001, 1:7–12. In the ’868 patent, a menu is provided for a developer, including allowing modifications to a NIM such as “frame characteristics,” “the titlebar,” or “initialization URLs for a different frame or control elements,” with the exemplary graphical interface relating to “frame characteristics” illustrated in Figure 28B. Ex. 2015, 3:65–67, 36:11–16, Fig. 28B. Because “resizable” is listed in Figure 28B of the ’868 patent, Patent Owner argues, it is a frame characteristic and not a control characteristic. PO Resp. 25–26.

More generally, Patent Owner argues that a frame characteristic is “a characteristic of the frame itself” such as resizability or size, but a control characteristic is “a characteristic of a control,” “*e.g.*, a characteristic of the resize handle, menu, close button, or control space.” *Id.* at 27 (citing Ex. 2010 ¶¶ 65–67); PO Sur-reply 12–13. Patent Owner additionally argues that Brown describes that the controls for resizability are displayed distinctly from the desktop components and are not defined within the HTML portions that Petitioner cites as corresponding to NIM templates. *Id.* at 27–29 (citing Ex. 2010 ¶¶ 51–53, 67–70).

Additionally, Patent Owner contends that HTML is not a data structure. PO Resp. 33–36. Patent Owner argues that HTML is code for displaying a webpage, which is written and read sequentially from beginning to end, and is not used for data organization. *Id.* at 33–35 (citing Ex. 2010 ¶¶ 96, 99–103).

In its Reply, Petitioner argues that Patent Owner’s reading of the construction is too narrow, and that one of ordinary skill in the art “would

have understood that ‘control characteristics’ would include any data in the NIM template that dictate the existence/nature/functionality/appearance of a control.” Pet. Reply 6 (citing Ex. 1029⁵ ¶ 53). Petitioner additionally contends that, in light of the specification of the ’545 patent, we should not require that NIM templates must include all control functionality, rather than invoking functionality provided elsewhere. *Id.* at 6–7 (citing Ex. 1001, 9:15–19, 13:49–53, 13:57–59, 20:38–40; Ex. 1029 ¶ 54). Petitioner asserts that the ’868 patent “supports the idea that ‘resizable’ is an example ‘frame characteristic,’” but does not limit resizable from being a “control characteristic.” *Id.* at 7 n.3. Petitioner asserts that characteristics of scroll bar controls are additionally defined in HTML instructions, including the presence of such controls and the size, which are defined by the frame size specified in the HTML instructions. *Id.* at 7–10 (citing Ex. 1003 ¶¶ 85–91; Ex. 1029 ¶¶ 56–57). With respect to whether HTML is a data structure, Petitioner notes that HTML is discussed as a possible NIM template format in the ’545 patent and Patent Owner’s documents, and that one of ordinary skill would have understood that HTML is an example of a data structure. Pet. Reply 10–12 (citing Ex. 1001, 5:56–64, 21:42–54, Fig. 29A; Ex. 2025, 2; Ex. 2033, 42; Ex. 1003 ¶¶ 54, 63, 113; Ex. 1029 ¶¶ 58–61).

(b) Our Determination Regarding Brown and the Claim Construction of “networked information monitor template”

Our determination is that Petitioner has shown by a preponderance of the evidence that Brown’s set of HTML instructions defining desktop components teaches or suggests a NIM template in accordance with our claim construction of that term.

⁵ Ex. 1029 is a declaration of Dr. Philip Greenspun submitted by Petitioner with its Reply.

Without providing a second construction of “NIM template” or performing a construction of our claim construction, we determine that Petitioner has sufficiently shown that the “resizable” instruction in Brown’s HTML constitutes a control characteristic. We do not agree that our construction requires a characteristic of a control to be specified in the NIM template, such as “a characteristic of the resize handle, menu, close button, or control space.” PO Resp. 27. Rather, our construction requires that a NIM template defines “characteristics of a NIM,” i.e. characteristics of “a fully configurable frame . . . through which content is presented to the user,” and that these characteristics “include[e] the NIM frame, view, and control characteristics.” “Control characteristics” are one of the required “characteristics of a NIM” that further define the NIM, in this case, regarding user control of the NIM. Brown’s “resizable” instruction provides that control to resize a NIM be available to a user. Ex. 1001, 7:24–25, 7:57–59, 11:59–12:10; Ex. 1003 ¶ 58; Ex. 1029 ¶ 55. We do not find that the description of resizing in the ’868 patent (incorporated by reference into the ’545 patent) as a frame characteristic compels a different result, especially in light of other evidence, such as the ’545 patent specification’s indication that resize is a “control.” Ex. 1001, 17:45–48 (“As an illustration, frame 137-3 includes a control button 145 that allows the user to resize the visual manifestation of NIM 133-3”). With respect to whether a control can execute functionality located outside of the template, we find compelling the ’545 patent’s discussion of a control that invokes functionality provided outside of the template and Dr. Greenspun’s testimony relating to this. Ex. 1001, 29:28–30; Ex. 1029 ¶ 54.

With respect to whether an HTML file is a data structure, we find compelling the evidence that the ’545 patent itself indicates that a NIM may

be created in HTML. Ex. 1001, Fig. 29A. In light of this and the references to HTML in Patent Owner’s documents (cited at Pet. Reply 11), and crediting Petitioner’s experts’ testimony regarding the term “data structure” as consistent with this evidence (Ex. 1003 ¶ 54; Ex. 1029 ¶¶ 58–61), we determine that the data structure required in our claim construction may be HTML.

Brown’s HTML instructions define the characteristics of the desktop components. Ex. 1005, 11:39–12:43; Ex. 1003 ¶¶ 54–55. NIM frame, view, and control characteristics are taught or suggested, in Brown’s “IFRAME,” “frameborder,” “BACKGROUND,” and/or “resizable” HTML elements. Ex. 1005, 11:39–12:43; Ex. 1003 ¶¶ 55–58. HTML instructions are not an application or compiled code. Ex. 1003 ¶¶ 29, 59.

Accordingly, we determine that Brown’s HTML instructions teach or suggest a NIM template in accordance with our claim construction. Additional recitations regarding the NIM template are addressed below, in our discussion of the recited limitations of claim 1.

c) Limitations 1.1 and 1.2

With respect to limitation 1.1 of claim 1, Petitioner argues that Brown teaches that “its client device can download content.” Pet. 25 (citing, *inter alia*, Ex. 1005, 2:4–12). “Indeed, Brown describes that “[a] ‘client’ computer connected to the Internet can download (“transmitting ... a request”) digital information from ‘server’ computers connected to the Internet (“over the network”).” *Id.* (quoting Ex. 1005, 2:4–8; citing Ex. 1003 ¶ 61) (alterations in original). Petitioner cites Dr. Schmidt’s explanation that one of ordinary skill “would have understood or found obvious that this transmission would occur ‘to a server over [a] network’ because Brown describes the use of ‘uniform resource locators’ or ‘URLs’

which are known to correspond to such network locations hosted on such servers.” Ex. 1003 ¶ 62 (citing Ex. 1005, 3:24–33, 11:43–43); Pet. 25. Petitioner additionally argues that Brown describes that HTML files could be downloaded to a client, and that one of ordinary skill would have understood that a NIM template could be requested from a server. Pet. 25–26 (citing Ex. 1005, 2:4–29; Ex. 1003 ¶ 64). With respect to limitation 1.2, relating to the transmission of a NIM template from the server and the receipt of that NIM template, Petitioner contends that one of ordinary skill would have found that the combination of Brown and Wecker would have taught or suggested the download of HTML instructions for a desktop component from a website. *Id.* at 25–26 (citing Ex. 1006, 3:8–16; Ex. 1003 ¶¶ 63–64).

In addition to its arguments regarding Brown’s teaching of a NIM template, addressed above, Patent Owner presents arguments relating to “Brown’s shell user interface control 220”. PO Resp. 42–43 (citing Ex. 2010 ¶¶ 164–165). These arguments are inapposite, as Petitioner does not discuss or rely upon this interface from Brown in its arguments. *See* Pet. 25–26. With respect to the combination of Brown and Wecker, Patent Owner contends that Brown does not disclose the receipt of HTML instructions from a server and that Wecker does not describe transmission in response to a user request, and Patent Owner generally argues that “Brown and Wecker are silent with regards to the details of what is transmitted/stored” without discussing the specific portions of Brown and Wecker cited by Petitioner. PO Resp. 44–45 (citing Ex. 2010 ¶¶ 167–168); PO Sur-reply 16–17.

We determine that Petitioner has shown by a preponderance of the evidence the transmission of a request of a NIM template, and the

transmission and receipt of a NIM template, including in Brown's teaching that a user can modify Brown's composite desktop through "a component installation control" to "install[] a corresponding component from [a] Web page" (Ex. 1005, 3:24–33) along with the more general showings with respect to the knowledge of one of ordinary skill regarding servers and the Internet at the time of the invention (Ex. 1003 ¶¶ 23, 61–64). We additionally determine that the transmission and receipt of a NIM template as recited in these limitations is taught or suggested in the combination of Brown with Wecker, in which script files for a mobile channel are located on a web site and transmitted to a user's device. Pet. 25–26 (citing Ex. 1006, 3:8–16; Ex. 1003 ¶¶ 63–64).

Accordingly we determine that the combination of Brown and Wecker teaches limitations 1.1 and 1.2 of claim 1.

d) Limitations 1.3 and 1.4

Limitations 1.3 and 1.4 of claim 1 require that the NIM template must comprise (1) "a definition of a viewer graphical user interface within which content in a web browser-readable language may be presented," and (2) a "definition of a first content element" for the NIM template which references a network location from which the element is served. Ex. 1001, 42:38–47.

Petitioner shows, inter alia, that "Brown refers to its composite desktop (and all Windows-based desktops) as a 'GUI desktop.'" Pet. 27 (citing Ex. 1005, 1:35–38, Fig. 3A). Petitioner explains that "[b]ecause Brown's HTML instructions define the desktop component, [one of ordinary skill in the art] would have recognized or found obvious that they contain 'a definition of a graphical user interface'," as this portion of [1.3] calls for. *Id.* (emphasis omitted). Petitioner reviews Brown's teachings regarding frames

for desktop components presenting content on a display. Pet. 28–29 (citing Ex. 1005, 11:24, 12:63–64, Fig. 1; Ex. 1003 ¶¶ 67–68).

Petitioner further shows that “Brown also describes that Web pages or documents presented in desktop components ‘[function] similarly to the corresponding Web page viewed in a browser window.’” Pet. 28 (quoting Ex. 1005, 11:24) (alteration in original). Dr. Schmidt explains that a “POSITA also would have recognized that HTML is an example of a ‘web-browser readable,’ as HTML is one of the most common examples of such a language.” Ex. 1003 ¶ 68; Pet. 29.

With respect to the definition of a content element, Petitioner argues this is taught or suggested by the inclusion of a CDF file in HTTP instructions for an exemplary desktop component. Pet. 29–30 (citing Ex. 1005, 13:4–7; Ex. 1003 ¶¶ 70–72).

Patent Owner argues, with respect to limitation 1.4 of claim 1, that the claim limitation requires that “the NIM template itself must identify/include the network location of the content to be displayed in the NIM” and that a CDF file is not the content to be displayed, but only references the content to be displayed. PO Resp. 41–42; PO Sur-reply 15; Ex. 2010 ¶¶ 116–117.

Petitioner, in its Reply, contends that CDF files are coded in XML (extensible markup language), and XML files specify Internet content. Pet. Reply 15–17 (Ex. 1006, 10:57–60; Ex. 2033, 12; Ex. 1029 ¶ 66).

Petitioner’s argument that CDF files are coded in XML and contain content for display appears consistent with Brown’s disclosure that the CDF file used in the Petition is an example of a network location at which content for a desktop component is accessible (Ex. 1005, 13:1–13 (“CDF files are used to implement ‘subscriptions’ in which information is regularly retrieved and updated within the active desktop component”))) and depiction of the

resultant content (*id.*, Fig. 3A). In light of this disclosure, we credit Dr. Greenspun’s testimony that Brown’s CDF file would have been understood as providing content for Brown’s desktop component over Dr. Selker’s testimony that the CDF file is not itself content but only “describes” content, especially in light of Dr. Selker’s described level of knowledge regarding CDF files, as per his deposition testimony. Ex. 1029 ¶¶ 66-67; Ex. 2010 ¶ 117; *see* Pet. Reply 17, Ex. 1027, 108:9–112:23.

After a review of the record, we find the preponderance of the evidence shows that Brown’s floating frames teach or suggest the viewer graphical user interface as recited in limitation 1.3. Ex. 1005, 11:24, 12:63–64, Fig. 1; Ex. 1003 ¶¶ 67–68. Additionally, given Brown’s teaching that its desktop component HTML instructions include a network location for a CDF file system, we find Petitioner has shown by a preponderance of the evidence that Brown teaches or suggests the content reference of limitation 1.4. Ex. 1005, 12:5–6, 13:1–5; Ex. 1003 ¶¶ 70–72; Ex. 1029 ¶¶ 65–67.

e) Limitations 1.5–1.8

Limitations 1.5 through 1.8 recite the presentation of the viewer graphical user interface on the display of the client computing device, and the request, receipt, and presentation of a content element in that interface.

Petitioner shows that Brown’s frame would be displayed to a user on the display of a computing device, and that this would have been performed according the HTML instructions describing the desktop component. Pet. 31 (citing Ex. 1005, 5:38–39, 11:56–10; Ex. 1003 ¶¶ 73–75). Petitioner shows that the display of the desktop components are, in the example shown, “separate from and outside of” other graphical user interfaces. Pet. 32–33 (citing Ex. 1005, 7:21–23, Fig. 3A; Ex. 1003 ¶ 77). Petitioner additionally shows that Brown teaches the content request for content from network

locations referenced by the definition of the first content element, in its description that CDF subscriptions ‘are used to implement ‘subscriptions’ in which information is regularly . . . and updated.” Pet. 36 (citing Ex. 1005, 12:1–8, 13:4–13; Ex. 1003 ¶ 82) . Petitioner cites the exemplary desktop with desktop components and Dr. Schmidt’s testimony to show that one of ordinary skill would have recognized Brown as teaching that the content elements received would be presented in the frame of the desktop component, and that these would define the controls for the user to interact with the content element. Pet. 37 (citing Ex. 1005, Fig. 3A; Ex. 1003 ¶¶ 85).

These contentions, which Patent Owner does not contest, are supported by evidence of record discussed above.

Accordingly, without determining whether the preamble is limiting, we find that the combination of Brown and Wecker teaches or suggests limitations 1.5 through 1.8 of claim 1.

f) Claim 1 and the Combination of Brown and Wecker

On this record, we find Petitioner has established by a preponderance of the evidence that the combination of Brown and Wecker teaches or suggests the subject matter of claim 1. As discussed, Patent Owner additionally argues that the objective evidence is sufficient to overcome Petitioner’s showing regarding the obviousness of the claims. PO Resp. 74–84; PO Sur-reply 23–30. We address Patent Owner’s objective evidence of nonobviousness arguments below.

g) Objective Indicia of Non-Obviousness

(1) Legal Standards

Notwithstanding what the teachings of the prior art would have suggested to one skilled in the art, objective evidence of nonobviousness (so called “secondary considerations”) may lead to a conclusion that the

challenged claims would not have been obvious. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

Evidence of objective indicia of nonobviousness is only accorded substantial weight when such evidence has a nexus (a “legally and factually sufficient connection”) with the claims, and the patent owner bears the burden of showing such nexus exists. *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 33 at 32 (PTAB Jan. 24, 2020) (precedential) (“*Lectrosonics*”). However, a patent owner is entitled to a rebuttable presumption of nexus when it shows that the asserted objective evidence is tied to a specific product that embodies the claimed features, and is coextensive with them. *Fox Factory*, 944 F.3d at 1373. If the presumption of nexus is not appropriate, a patent owner is further “afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the ‘direct result of the unique characteristics of the claimed invention.’” *Id.* at 1373–74 (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)). In a nexus analysis, it is important to consider “the invention as a whole,” rather than on a “limitation-by-limitation” basis. *Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, 4 F.4th 1370, 1377 (Fed. Cir. 2021).

Objective evidence of nonobviousness includes: (1) commercial success, (2) copying, (3) industry praise, (4) skepticism, (5) long-felt but unsolved need, and (6) failure of others. *See, e.g., Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling U.S., Inc.*, 699 F.3d 1340, 1349–56 (Fed. Cir. 2012).

(2) Presumption of Nexus

Patent Owner asserts that “[b]ecause each claim element is present in the commercialized Dots, there is a concrete nexus to all the patent claims.” PO Resp. 78 (citing Ex. 2010 ¶¶ 278–285). In the Patent Owner Response, Patent Owner relies upon Dr. Selker’s testimony that “that the DoDots technology met each and every element of claim 1 of the ’545 patent, which is exemplary of the other claims” and “all other claims of the ’545 patent also have such a nexus.” Ex. 2010 ¶ 279. Dr. Selker describes this opinion as based on the declaration of, and Dr. Selker’s conversations with, Mr. John Kembel, an inventor of the ’545 patent, and on the underlying documents discussed in John Kembel’s declaration. *Id.* Dr. Selker reviews claim 1 of the ’545 patent and describes how “the DoDots technology” includes all the elements of that claim. *Id.* ¶¶ 281–283. Dr. Selker concludes that there is nexus because “the DoDots technology is the ‘Dot’ commercial product of the claims of the patent.” *Id.* at 284.

In its Reply, Petitioner argues that the showing is insufficient to establish a presumption of nexus because Patent Owner only analyzed whether the DoDots product embodies the claims, and failed to address whether the product is coextensive with the claims. Pet. Reply 31–32. Petitioner argues that the DoDots product is not coextensive with the claims, citing John Kembel’s description of “Dot infrastructure” as critical to the success of the DoDots product and describing as significant certain features of DoDots (“Home Dot,” “Dot sharing,” “DevDot,” and “a whole developer ecosystem”) that are not part of the claims. *Id.* at 32–33 (citing Ex. 1031, 20:6–21:5, 29:16–33:11, 50:12–52:18, 59:2–17). Petitioner additionally contends that some of these features are the subject of other DoDots patents. *Id.* at 31–32 (citing Ex. 1037; Ex. 1038; Ex. 1040; Ex. 1041). Petitioner

further cites co-inventor Mr. George Kembel’s testimony that the “visual design of the Dots” is “one ingredient of many ingredients of why [DoDots] was successful,” as evidence that unclaimed elements of DoDots products are significant and undermine Patent Owner’s view that those products are coextensive with the challenged claims. *Id.* at 33 (citing Ex. 1029, 40:12–41:25, 45:16–46:20).

With respect to its initial showing on coextensiveness, Patent Owner responds in its Sur-reply that “the Federal Circuit has ‘never held’ that unclaimed features alone defeat the presumption.” PO Sur-reply 23–24 (quoting *Teva Pharms. Int’l GmbH v. Eli Lilly & Co.*, 8 F.4th 1349, 1361 (Fed. Cir. 2021). Additionally, to show coextensiveness, Patent Owner argues that “explicit and unequivocal” testimony shows that the DoDots product ecosystem is “all the direct result of the NIM/Dot templates” of the claims before us and in other patents. *Id.* at 24–25 (citing Ex. 1031⁶, 18:7–9, 19:3–22, 21:3–5, 21:19–23:14, 48:17–19; Ex. 1032, 23:14–25; Ex. 2054; Ex. 2064, Ex. 2065; Ex. 2021 ¶¶ 30, 50; Ex. 2032; Ex. 2044, 2). The cited testimony of John Kembel and George Kembel involves discussions of their assessment of the importance of the configurability of the NIMs and NIM templates, along with statements regarding the development and response to their products. Ex. 1031, 18:7–9, 19:3–22, 21:3–5, 21:19–23:14, 48:17–19; Ex. 1032, 23:14–25; Ex. 2021 ¶¶ 30, 50. The cited testimony regarding investments made (Ex. 2032; Ex. 2044) does not tie such investments to the specific features claimed.

⁶ We understand the reference to Ex. 1030 in this portion of the Sur-reply to be a typographical error.

We determine that Patent Owner has not shown that it is entitled to the presumption of nexus. That is, Patent Owner has not shown that product “is the invention disclosed and claimed.” *Fox Factory*, 944 F.3d at 1373 (quoting *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)). Petitioner is correct that Patent Owner did not discuss whether the claims of the ’545 patent are coextensive with the DoDots patent in its Patent Owner Response. We examine Patent Owner’s contentions in its Sur-reply of coextensiveness, including Patent Owner’s contention that “[t]he ‘gist’ of the inventions centered around the NIM template,” (PO Sur-reply 24–25) to determine if the DoDots product was coextensive or, even if not, if “the unclaimed features amount to nothing more than additional insignificant features,” in which case the presumption of nexus may still be appropriate. *See Fox Factory*, 944 F.3d at 1373 (“Although we do not require the patentee to prove perfect correspondence to meet the coextensiveness requirement, what we do require is that the patentee demonstrate that the product is essentially the claimed invention.”); *Teva Pharms.*, 8 F.4th at 1362 (discussing the “spectrum” of coextensiveness, from one in which unclaimed features are insignificant, which might not disturb the presumption, to one in which a critical feature is unclaimed, which would not show coextensiveness).

We determine that the record evidence shows that at least the feature of the “developer ecosystem” was significant and not coextensive with the claims. John Kembel’s testimony describes “a whole developer ecosystem” including a “dev Dot” that allows “web developers to become Dot developers.” Ex. 1031, 59:2–17. Patent Owner contends that NIMs and NIM templates, as claimed, are the only critical features of the DoDots products, but the testimony of John Kembel confirms the criticality of the

developer ecosystem: “[Y]ou could collect Dots, you could share Dots, you could organize them into packs based on your different work products, but the gist and the magic of the invention really comes down to the concept of a Dot, the Dot definition, *and the server infrastructure that enabled those to be defined*, collected, *developed*, and distributed.” Ex. 1031, 19:16–22 (emphasis added); see Ex. 2021 ¶¶ 36–43; Ex. 2027, 6 (discussing the “DevDot”); Ex. 2029.

Patent Owner acknowledges, in its description of DoDots technology, that “[t]he claimed inventions of the ’545 patent . . . disclosed an ecosystem for software developers to author and distribute . . . data structures which the inventors referred to as NIM templates,” and contends that this ecosystem “attracted hundreds of independent Dot developers.” PO Resp. 2–3, 6. But despite touting the importance of this development ecosystem, Patent Owner does not address how it is disclosed in the claims of the ’545 patent, and we do not discern that it is.

We are instructed that, even if we do not determine that a presumption of nexus attaches, nexus may still be proven by a showing “that the evidence of secondary considerations is the ‘direct result of the unique characteristics of the claimed invention.’” *Fox Factory*, 944 F.3d at 1373–74 (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)); *Lectrosonics* at 33. We turn to the provided evidence of secondary considerations with this in mind.

(3) *Long-Felt But Unsolved Need*

Long-felt need can be shown by evidence that indicates that the prior art had a recognized need for a solution to the problem, and that others had tried and failed to find a solution to that problem. *Millennium Pharms., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1369 (Fed. Cir. 2017). We have reviewed the cited evidence presented by Patent Owner, and find that it does not evince

strong evidence of a long-felt but unsolved need that was addressed by the DoDots products.

Patent Owner argues that there was a long-felt need at the time of the invention for an alternative to browsers because browsers loaded a full page at a time even when only partial information was desired, pages were displayed serially in a browser window, browser windows were not tailored to the content being displayed, and browser branding, size, and application behavior was not configurable. PO Resp. 78–80. In support, Patent Owner cites Dr. Selker’s and John Kembel’s declaration, the “Background of the Invention” of the ’083 patent, and three articles. *Id.* (citing Ex. 2010 ¶¶ 287–296; Ex. 2021 ¶¶ 2–6, 8, 11–19; Ex. 2054, 2:5–35, 2:60–3:29⁷; Ex. 2022; Ex. 2023; Ex. 2024). Reviewing these, we determine that the referenced statements from the articles are not indicative of a long-felt need solved by the DoDots product.

For example, Tim Berners-Lee, “creator of the World Wide Web,” is quoted as opining that browsers “stifle[] creativity,” and Bill Gates is quoted as “wish[ing browsers] would just go away and become ‘part of the operating system.’” Ex. 2022, 1. However, these generalized statements regarding issues with browsers do not evidence a specific problem that required a solution, much less that the DoDots product resolved any long-felt need or problem. *See also id.* (describing viewing the Web one page at a time as a problem with browsers) (quoted at PO Resp. 80); Ex. 2023, 3 (same); Ex. 2023, 2, 3–4 (describing a problem as “takes too many mouse clicks to get from one place to another”) (quoted at PO Resp. 80); Ex. 2023,

⁷ We understand the cite to this portion of Ex. 1001 to be a typographical error for Ex. 2054 (the ’083 patent).

2 (describing “a growing dissatisfaction with the way the Web looks and works”) (quoted at Ex. 2010 ¶ 295); Ex. 2023, 4 (“many sites are just plain ugly”) (quoted at Ex. 2010 ¶ 292); Ex. 2023, 4–5 (“We need to just forget the browser. The browser has set us back ten years.”) (quoted at Ex. 2010 ¶ 294); Ex. 2024, 1 (“[T]here’s too much happening, and accessing even the simplest stuff . . . takes too long.”) (quoted at PO Resp. 80).

While certain evidence does relate clearly and specifically to issues with browsers at the time of the invention, these do not show that a need that was long-felt or that others had tried and failed to solve the problems. For example, certain of the cited statements in the Background of the Invention section of the ’083 patent are related to the problems ostensibly solved by the DoDots product, e.g., that the browser window was not tailored to the content being displayed and that the frame of the browser could not be rebranded or flexible control provided to a user. Ex. 2054, 2:45–3:20 (cited at PO Resp. 79). Additionally, John Kembel testifies that, “[a]t the time of invention,” he “began to appreciate” that then-current web browsers “kept companies from engaging customers directly, content creators from developing interactive app-like experiences, and users from easily accessing the information and functionality they wanted from the burgeoning internet.” Ex. 2021 ¶ 5 (cited at PO Resp. 79). But these statements, even if we credit them as “objective” (rather than the subjective opinion of an inventor) and as identifying problems with then-current browser technology solved by the DoDots products, do not show that such problems were long-felt, as each is roughly contemporaneous with the invention.

None of the evidence provided describes failed efforts of others to solve the specific problems addressed by DoDots. In fact, the cited articles describe other approaches to browsers, including describing applications that

run alongside browsers “giving one-click access to frequently used applications like stock-quote monitors” (Ex. 2022, 1), applications with their own dashboards that provide users “a way to bypass the browser entirely” (Ex. 2022, 1), and alternative browsers (Ex. 2023).

For these reasons, we find no compelling objective evidence has been presented that the DoDots invention addressed a long-felt but unsolved need.

(4) Industry Praise / Awards

Patent Owner presents evidence of recognition by others. In particular, Patent Owner cites an article in Fortune magazine that describes as “interesting” the DoDots platform. PO Resp. 81–82 (citing Ex. 2022, 1). Additionally, Patent Owner cites portions of “Demo” conference handbooks describing the DoDots product as “an innovative way to connect to multiple sites” (Ex. 2039, 18), finding “DoDots extensible software architecture [to be] a rare find” (Ex. 2040, 16), and touting DoDots as “remarkable” for “us[ing] a tool to extend web presence to new emerging form factors” (*id.*). PO Resp. 8, 83–84 (citing Ex. 2030 ¶¶ 26–31, 44–45, 306–307; Ex. 2039; Ex. 2040; Ex. 2041; Ex. 2042). A DoDots press release notes the receipt by DoDots of an “Investors’ Choice” award as a company “Most Likely to Succeed.” Ex. 2042 (cited at PO Resp. 8; PO Sur-reply 27). These citations signify industry recognition to some extent of the DoDots products; however, they do not describe recognition as specifically linked to the unique characteristics of the claimed invention, and so this evidence is weak at best.

We find other evidence presented by Patent Owner is not compelling. Patent Owner describes a “DemoGod” award received by DoDots as having been “selected by start-up investors, experts in the fields, and competitors who thought that the Dots product was among the best of the best.”

PO Resp. 83 (citing Ex. 2030 ¶¶ 26, 27, 31; Ex. 2041). However, the description of “[t]he [m]aking of a DemoGod” in the cited exhibit focuses on the quality of the presentation, rather than its content, and describes the awardees as “present[ing] with poise, passion, and clarity the core value proposition of their products and services” rather than describing the award as signifying “best of the best” status for the DoDots product being presented. Ex. 2041, 5–6, 7. An article written about the launch of the DoDots product states that the admiring description quoted in the Patent Owner Response was provided by “representatives of DoDots.” Ex. 2046 (cited at PO Resp. 4). Patent Owner additionally cites a press release in which executives at DoDots’ partners, along with a member of the DoDots advisory board and an investing entity, praised the system. PO Resp. 81–82 (citing Ex. 2031; Ex. 2032; Ex. 2035); PO Sur-reply 25; *see* Pet. Reply 35. Other quotations also come from press releases. PO Resp. 82–83 (citing Ex. 2037). We do not find these statements objective, given that they were supplied by interested parties. For the reasons stated above, we do not find the “DemoGod” award, which focused on the quality of the presentation and not the product itself, or the promotional statements by interested parties, to be strong objective evidence of industry praise.

For these reasons, we find weak objective evidence of industry praise has been presented.

(5) Commercial Success

Patent Owner argues that “the initial success of the Dots product was rapid,” and that “[b]ut for the collapse of the dot-com bubble, this novel invention was on track to obtain millions in potential investments.”

PO Resp. 82; PO Sur-reply 2. But Patent Owner’s evidence of such imminent success is shaky. Patent Owner provides some figures: “[a]t its

peak, DoDots had 60+ customers,” “attracted hundreds of independent Dot developers,” and “was used by hundreds[]of[]thousands of users.” PO Resp. 2–3 (citing Ex. 2021 ¶¶ 36–40), 8 (citing generally Ex. 2027, a 122-page document), 2 (citing Ex. 2010 ¶¶ 310–312; Ex. 2030 ¶¶ 18–23, 25). However, while one citation (Ex. 2030 ¶ 25) lists approximately twenty customers, the provided citations do not mention or support the provided numbers or indicate the source of these numbers. Other evidence provided is prospective, predicting future successes. PO Resp. 82–83 (citing Ex. 2033 (describing that DoDots “enables online companies to exploit the multibillion-dollar opportunity”); Ex. 2037 (“We look forward to working closely with DoDots to help reach millions of wireless users.”)).

Patent Owner contends that “[a]t its height, DoDots was valued at \$275 million.” PO Resp. 8 (citing Ex. 2047). Again, this number does not appear in the cited exhibit. This number appears in two business school case studies of DoDots introduced and referenced by Patent Owner, Exhibits 2043 and 2044. See PO Resp. 82 (citing Ex. 2010 ¶ 310, itself citing Ex. 2030 ¶ 33, which cites Ex. 2043 and Ex. 2044); PO Sur-reply 28 (citing Ex. 2043). However, these case studies each bear an indication that “[f]or confidentiality purposes some facts and numbers in this case have been changed.” Ex. 2043, 5; Ex. 2044, 4 (emphasis omitted). In other words, the evidence presented does not establish sufficiently the bare assertion that the DoDots product ever was valued at \$275 million, as asserted by Patent Owner.

Even giving credit to the figures presented for customers, developers, users, or valuation of the company, we have no sales numbers, no evidence regarding the meaning of the numbers we have been provided in the relevant markets, and no evidence that any of these numbers are attributable to the

claimed features of the DoDots product. *Cf. Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1151 (Fed. Cir. 1983) (“The evidence of commercial success consisted solely of the number of units sold. There was no evidence of market share, of growth in market share, of replacing earlier units sold by others or of dollar amounts, and no evidence of a nexus between sales and the merits of the invention.”). In fact, as Petitioner argues, there is evidence that the product was offered free-of-charge to customers, and that initial funding was depleted and new funding not obtained. Pet. Reply 35–36 (citing Ex. 1045, 24:13–25, 25:7–22; Ex. 2030 ¶¶ 33–43). While we recognize that these facts are not dispositive – a product that is available for free may be commercially successful for other reasons, and other forces may have been at work with respect to funding shortfalls – in the absence of any further explanation regarding these issues and any broader context or showing for the evidence and assertions before us, the record does not support Patent Owner’s claims regarding commercial success.

(6) *Conclusion – Objective Indicia of Non-Obviousness*

We have reviewed the Patent Owner’s arguments and evidence relating to secondary considerations and find that Patent Owner has not shown a nexus between the evidence supplied and the claimed invention, and that the evidence itself, even were the nexus to have been shown, does not support a finding that the claimed invention as a whole would not have been obvious to a skilled artisan.

h) Conclusion as to Obviousness of Claim 1

“Once all relevant facts are found, the ultimate legal determination [of obviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.”

Arctic Cat v. Bombardier Recreational Prod. Inc., 876 F.3d 1350, 1361

(Fed. Cir. 2017). On balance, considering the complete record before us, Petitioner has established, by a preponderance of the evidence, that the combination of Brown and Wecker would have rendered the subject matter of claim 1 obvious to one of ordinary skill in the art at the time of the invention.

5. *Claims 2–4*

Claim 2 depends from claim 1 and further recites that “the definition of the viewer graphical user interface includes a definition of at least one control effective for controlling an aspect of the viewer graphical user interface, and wherein presenting the viewer graphical user interface comprises presenting the at least one control.” Ex. 1001, 43:5–10. Claims 3 and 4 depend from claim 2, and specify that the aspect is the location of the interface on the display device, or the size of the interface on the display device. *Id.* at 43:11–15.

Petitioner argues that the resizability indication in Brown and the depiction of scroll bars on the desktop component teaches or suggests the control recited in claim 2, and that one of ordinary skill in the art would have understood that resizing and repositioning desktop components would have been part of the general knowledge of one of ordinary skill. Pet. 38–41 (citing Ex. 1005 7:49–61, 9:13–27, 12:1–8; Ex. 1003 ¶¶ 86–89). Petitioner further contends that the controls in Brown are defined by the HTML instructions that define the desktop component. *Id.* at 38–39 (citing Ex. 1005, 7:59–61 (manipulation controls for desktop components), 11:56–67; Ex. 1003 ¶¶ 86, 87); *see id.* 23–24 (citing Ex. 1005, 7:57–59; Ex. 1003 ¶ 58).

With respect to claims 3 and 4, Petitioner contends that the aspect controls could be the location or the size of the user interface, as taught or

suggested by Brown. *Id.* at 41–42 (citing Ex. 1005, 7:59–61; Ex. 1003 ¶¶ 90–91).

Patent Owner raises no additional arguments with respect to Petitioner’s contentions.

We find that Petitioner’s contentions are supported by a preponderance of the evidence. Brown teaches or suggests control elements defined in the HTML instructions relating to desktop components, and that a user could reposition and resize desktop components. Ex. 1005, 7:49–61, Fig. 3A; Ex. 1003 ¶¶ 86–89. We additionally note the relevance of our determination regarding whether the definition of a control can allow for the use of external material (not included in the definition), discussed previously with respect to the parties arguments relating to Brown and the NIM template. *See supra* Section II.D.4.b.2.

For these reasons, we determine that the combination of Brown and Wecker teaches or suggests claims 2, 3, and 4, and that these claims are unpatentable as obvious.

6. Claims 6–8

Claim 6 depends from claim 1 and further recites that an image is comprised within the definition of the user interface and is presented as part of the user interface. Ex. 1001, 43:21–28. Claims 7 and 8 add to claim 6 that the content element is presented in association with or within the image. *Id.* at 43:29–38.

Petitioner cites Brown’s description of the inclusion of graphics and video clips within HTML documents, and the presence of JPG files in the exemplary desktop components presented. Pet. 42 (citing Ex. 1005, 2:20–21, 11:51–59, Fig. 3A; Ex. 1003 ¶ 92. Petitioner presents Dr. Schmidt’s testimony that one of ordinary skill in the art would have understood that the

images could be part of the definition of the viewer graphical user interface. *Id.* (citing Ex. 1003 ¶ 92); *see also id.* at 43–44 (citing Ex. 1006, 16:25–67; Ex. 1003 ¶ 93). Petitioner additionally argues, citing Dr. Schmidt, that one of ordinary skill would have understood that such an image could have been accompanied by non-image content for web pages that included images and non-image content (claim 7), or where the image was a background image, presenting non-image content within the background image (claim 8). *Id.* at 44–46 (citing, *inter alia*, Ex. 1003 ¶¶ 94–97).

Patent Owner raises no additional arguments with respect to Petitioner’s contentions.

We find that Petitioner’s contentions are supported by a preponderance of the evidence, that the combination of Brown and Wecker teaches or suggests claims 6, 7, and 8, and that these claims are unpatentable as obvious.

7. Claim 9

For the additional recitation of claim 9, which depends from claim 1, Petitioner relies on its arguments with respect to claims 1–4. Patent Owner raises no additional arguments with respect to Petitioner’s contentions.

For the reasons discussed above, we determine that the combination of Brown and Wecker teaches or suggests claim 9, and that this claim is unpatentable as obvious.

8. Claim 10

Claim 10 describes possible content which could be included in the recited first content element. Petitioner cites Brown’s description of an HTML document containing text, graphics, audio clips, and video clips. Pet. 46 (citing Ex. 1005, 2:20–23; Ex. 1003 ¶ 99).

Patent Owner raises no additional arguments with respect to Petitioner's contentions.

We determine that preponderance of the evidence, summarized above, shows that claim 10 is unpatentable as obvious over Brown and Wecker.

9. Claim 13

Petitioner argues that the additional recitations of claim 13 are taught or suggested by the time-varying content in the example of the desktop content directed to stock information. Pet. 47–48 (citing Ex. 1005, 1:24–34, Fig. 3A (element 308); Ex. 1003 ¶¶ 100–102).

Patent Owner raises no additional arguments with respect to Petitioner's contentions.

We determine that preponderance of the evidence, summarized above, shows that claim 11 is unpatentable as obvious over Brown and Wecker.

10. Claim 14

Petitioner argues, with respect to claim 14, that each of Brown and Wecker describe operations over the Internet. Pet. 48 (citing Ex. 1005, 13:1–4; Ex. 1006, 3:1–7; Ex. 1003 ¶¶ 103–104).

Patent Owner raises no additional arguments with respect to Petitioner's contentions.

We determine that preponderance of the evidence, summarized above, shows that claim 14 is unpatentable as obvious over Brown and Wecker .

11. Claim 15

With respect to claim 15, which generally relates to a definition of a second content element comprised in a NIM template and presented to a user in the viewer graphical user interface, Petitioner presents Dr. Schmidt's uncontroverted testimony that one of ordinary skill would have understood

that a second content element could be presented, in accordance with the recitations of claim 15. Pet. 48–49 (citing Ex. 1003 ¶¶ 105–108).

Patent Owner raises no additional arguments with respect to Petitioner’s contentions.

We determine that preponderance of the evidence, summarized above, shows that claim 15 is unpatentable as obvious over Brown and Wecker.

E. Obviousness of Claims 5, 11, 12, 16–21 over Brown, Wecker, and Beer

Petitioner contends that claims 5, 11, 12, 16–21 would have been obvious over Brown, Wecker, and Beer. Pet. 50–63. Patent Owner disputes the motivation to combine Brown, Wecker, and Beer. PO Resp. 45–47; PO Sur-reply 17–18.

1. Beer

Beer is directed to a method for dynamically switching between visual styles. Ex. 1007, code (54). The method “allow[s] a user to retrieve a user interface and a visual style from a local or remote storage unit, rapidly display the visual stylized user interface, and dynamically switch between visual styles.” *Id.*, code (57).; *see also id.* at 14:19–22.

Beer describes a Programmable Graphical User Interface (PGUI) that renders a user interface in accordance with a selected visual style. *Id.*, code (57), 14:1–22. Beer’s user can use the PGUI to change the visual style being used:

[A] user interface, stored on a server as a description in a text-based User Interface Language (UIL), is transferred to user’s client system. The PGUI parses the UIL description and creates the user interface controls defined in the description. The PGUI then uses the currently selected visual style to display the user interface, and then reads any content (e.g., text, images, or other content) for the interface. The PGUI displays the content within

the user interface, such as in a scrollable area or any other area described by the UIL.

Id. at code (57); *see id.* at 13:65–14:22.

Beer describes that “the UIL user interface description is preferably a text file, in a format similar to various text-markup languages, such as HTML (Hyper Text Markup Language).” *Id.* at 3:42–45.

2. *Combination of Brown, Wecker, and Beer*

Petitioner contends that each of Brown, Wecker, and Beer is directed to accessing and viewing Internet content, and that Brown and Beer each describe content in a graphical user interface which is defined by a style template. Pet. 51–52 (citing Ex. 1005, code (57), 6:34–36, 7:21–22, 11:1–13:54; Ex. 1006, code (57); Ex. 1007, code (57), 3:41–45, 3:50–55, 13:65–22). Petitioner contends that one of ordinary skill would have recognized that Beer’s UILs “are data structures corresponding to the ‘HTML templates’ that define Brown’s ‘desktop components.’” *Id.* at 53. Because of this, Petitioner argues, one of ordinary skill could have incorporated Beer’s teachings regarding changing styles with the PGUI without substantial modifications to Brown’s system to provide content displayed in multiple styles. *Id.* at 53 (citing Ex. 1003 ¶¶ 113–114). Petitioner contends that the PGUI parser could be implemented in Brown as the application of a known technique to a known structure and would yield predictable results. *Id.* at 54 (citing Ex. 1003 ¶ 115). Petitioner describes presenting content to a user in the style of a first operating system while running a second operating system, and argues, citing Dr. Schmidt’s testimony, that there would be “business advantages in allowing a user to specify a style.” *Id.* at 53–54 (citing Ex. 1003 ¶ 115).

Patent Owner argues that Beer is not directed to accessing or viewing Internet content, but is “solely concerned with changing the visual appearance of applications by rapidly downloading a user interface.” PO Resp. 45, 46 (citing Ex. 1003 ¶¶ 123, 170, 172). Patent Owner contends that, because Brown and Wecker do not include different operating systems, thus there would be no motivation to use Beer to change from a first visual appearance of an operating system to a second. *Id.* at 47 (citing Ex. 2010 ¶ 173). Patent Owner argues that Beer’s UIL “is a custom language related to a user interface” with a different goal than HTML, which is used to build a web page. *Id.*

We determine that Petitioner has shown by a preponderance of the evidence that one of ordinary skill in the art would have been motivated to make the proposed combination of Brown, Wecker, and Beer with a reasonable expectation of success. Beer’s UIL is described as existing in a format similar to HTML. Ex. 1007, 3:42–45. The PGUI in Beer parses the UIL and renders and displays the resulting user interface to the user. *Id.* at 14:6–14. Each of Beer and Brown, therefore, takes an HTML or HTML-like text file and uses it to render the described content to a user. We credit Dr. Schmidt’s testimony that the combination would be accomplished with a reasonable expectation of success and would have been motivated by a desire to provide a user with flexibility in choosing a style over Dr. Selker’s testimony that one of ordinary skill would not have been motivated to make the combination because of “fundamentally different goals” and because only one operating system is used in Brown. Ex. 1003 ¶¶ 114–115; Ex. 2010 ¶¶ 171–173.

3. *Claims 5, 11, 12, 16–21*

Claim 5 recites that the NIM template includes XML, and further recites a parser which parses the definition of a viewer graphical user interface. Petitioner contends that the CDF subscription described in Brown includes instructions in XML format, and that one of ordinary skill would have found it obvious to use a parser, such as the one taught in Beer, would have been used to parse the CDF subscription. Pet. 54–56 (citing Ex. 1005, 12:1–8; Ex. 1006, 10:57–62; Ex. 1003 ¶¶ 116–118).

Claim 11 describes the use of a parser, which presents the viewer graphical user interface, generates the request for the content element, and presents that content element. Ex. 1001, 43:50–62. Claim 16 is an independent claim which contains recitations similar to those of claim 11 relating to a parser, and claims 17–21 depend from claim 16 and contain additional recitations, in general relating to the operation of the parser with the disclosed NIM template and NIM. *Id.* at 44:32–46:23. Petitioner presents contentions regarding claims 11 and 16–21, describing the use of a parser, as described in Beer, to parse the template, and referring to recitations from earlier claims, discussed above. Pet. 56–63 (citing Ex. 1003 ¶¶ 119–140).

Claim 12 depends from claim 1, and further recites that the NIM of claim 1 communicates with another NIM. Ex. 1001, 43:63–65. Petitioner argues, with respect to this claim, that Beer describes that one UIL may load components described within a different UIL. Pet. 58 (citing Ex. 1007, 14:25–36). Petitioner cites Dr. Schmidt’s testimony that this request would require communication between the UILs and that, generally, one of ordinary skill in the art would have found it obvious for such communications to occur. *Id.* (citing Ex. 1003 ¶ 122).

With respect to these claims, Patent Owner presents no additional argument or evidence.

We have reviewed the Petitioner’s arguments and evidence, and find that Petitioner has shown by a preponderance of the evidence that claims 5, 11, 12, and 16–21 would have been obvious over the combination of Brown, Wecker, and Beer.

F. Additional Grounds

The Petition includes additional arguments, relating to the unpatentability of the claims over a combination of Shimada and Buchholz, alone or in combination with Darnell or Krishna.

Because we determine that Petitioner has shown claims 1–21 are unpatentable on other grounds, we do not reach Petitioner’s challenge to these same claims based on other combinations or arguments. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. 2020) (nonprecedential) (“We agree that the Board need not address [alternative grounds] that are not necessary to the resolution of the proceeding.”).

III. CONCLUSION⁸

In summary:

⁸ 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

Claims	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
1–4, 6– 10, 13– 15	103	Brown, Wecker	1–4, 6–10, 13–15	
5, 11, 12, 16–21	103	Brown, Wecker, Beer	5, 11, 12, 16– 21	
1–4, 6, 7, 9, 10, 13–15	103	Shimada, Buchholz ⁹		
5, 8, 12	103	Shimada, Buchholz, Darnell		
11, 16– 21	103	Shimada, Buchholz, Krishna		
Overall Outcome			1–21	

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that Petitioner has shown that claims 1–21 of the ’545 Patent are unpatentable; and

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

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).

⁹ We do not reach challenges over Shimada and Buchholz (alone or in combination with a third reference) because we determine that Petitioner has shown claims 1–21 to be unpatentable on other grounds.

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Patent 9,369,545 B2

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