UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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GOOGLE LLC, DELL INC. and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

CYPRESS LAKE SOFTWARE, INC.,
Patent Owner.
_____

Case IPR2019-00390
Patent 9,817,558 B1
_____

Before KEN B. BARRETT, MIRIAM L. QUINN, and
GREGG I. ANDERSON, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge.*

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

I.   INTRODUCTION

A. *Background and Summary*

Google LLC, Dell Inc. and Samsung Electronics America, Inc. (collectively "Petitioner")[1] filed a Petition requesting *inter partes* review of U.S. Patent No. 9,817,558 B1 ("the '558 patent," Ex. 1001). Paper 1 ("Pet."). The Petition challenges the patentability of claims 1–10, 12, and 13 of the '558 patent. Cypress Lake Software, Inc. ("Patent Owner")[2] did not file a Preliminary Response to the Petition.

Additionally, we authorized the parties to each file a brief addressing the impact on this case, if any, of a claim construction order in a parallel district court litigation and that issued after the filing of the Petition and after the expiration of the time for Patent Owner to file a preliminary response. *See* Ex. 1022 (Memorandum Opinion and Order on Claim Construction, *Cypress Lake Software, Inc. v. Samsung Electronics America, Inc.*, Case No. 6-18-cv-00030 (E.D. Tex. May 10, 2019).). The parties concurrently filed claim construction briefs. Paper 10 (Patent Owner's Brief on Claim Construction, "PO's Cl. Constr. Br."); Paper 11 (Petitioner's Brief on Claim Construction, "Pet.'s Cl. Constr. Br.").

An *inter partes* review may not be instituted "unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the

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[1] Petitioner identifies Google LLC, Dell Inc., Dell Technologies Inc., Denali Intermediate Inc., Dell USA LP, Dell Products LP, EMC Corporation, Samsung Electronics America, Inc., Samsung Electronics Corp, Ltd. and HP Inc. as real parties-in-interest. Pet. 6.

[2] Patent Owner identifies Cypress Lake Software, Inc. as the real party-in-interest. Paper 9, 1.

claims challenged in the petition." 35 U.S.C. § 314(a). Having considered the arguments and evidence presented by Petitioner and Patent Owner, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that at least one of the challenged claims of the '558 patent is unpatentable. Accordingly, we institute an *inter partes* review as to all the challenged claims of the '558 patent on the sole ground of unpatentability set forth in the Petition.

B. Related Proceedings

One or both parties identify, as matters involving or related to the '558 patent, Patent Trial and Appeal Board case IPR2019-00391 and the following:

> *LG Electronics MobileComm USA, Inc. v. Cypress Lake Software, Inc.*, Case No. 1-18-cv-00806 (D. Del.);

> *Cypress Lake Software, Inc. v. Dell, Inc.*, Case No. 6-18-cv-00138 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. Samsung Electronics America, Inc.*, Case No. 6-18-cv-00030 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. Samsung C&T America, Inc.*, Case No. 6-18-cv-00016 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. BlackBerry Corporation*, Case No. 6-17-cv-00692 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. HP Inc.*, Case No. 6-17-cv-00462 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. LG Electronics USA, Inc.*, Case No. 1-17-cv-01133 (D. Del.);

> *Cypress Lake Software, Inc. v. ZTE (USA) Inc.*, Case No. 6-17-cv-00300 (E.D. Tex.);

> *Cypress Lake Software, Inc. v. HP Inc.*, Case No. 5:18-cv-06144 (N.D. Cal.) (according to Patent Owner, transferred from the Eastern District of Texas on 10/5/2018); and

> *Cypress Lake Software, Inc. v. ZTE (USA) Inc.*, Case
> No. 5:18-cv-06146 (N.D. Cal.) (according to Patent Owner,
> transferred from Eastern District of Texas on 10/5/2018).

Pet. 6–7; Paper 9[3], 2.

C. The '558 Patent

The '558 patent is titled "Methods, Systems, And Computer Program Products for Coordinating Playing of Media Streams." The '558 patent describes a problem of multiple media streams, such as video, being allowed to be presented on the same device thus causing undesirable interference.

> When applications attempt to play more than one media
> stream on current devices, all the applications are allowed access
> to the presentation devices of the device, for example a display
> device and/or an audio device. The media streams are played by
> corresponding applications without regard for other media
> streams being played. Watching a video or listening to a song
> with interference from other audio streams and video streams is
> a common experience.

Ex. 1001, 1:21–28. Thus, according to the '558 patent, "there exists a need for methods, systems, and computer program products for coordinating playing of media streams." *Id.* at 1:43–45. Further according to the '558 patent, "[c]oordination and control of media streams as described herein may prevent incomprehensible and sometimes unpleasant user experiences resulting from media streams playing simultaneously in an uncoordinated manner." *Id.* at 14:51–54.

The '558 patent discloses the use of "presentation focus information" to coordinate the actions for the media players:

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[3] We note that Paper 9 is captioned for the related case IPR2019-00391 rather than bearing the number for this case, IPR2019-00390, and identifies this case as a related one. We treat those as a typographical errors.

> Methods and systems are described for coordinating playing of media streams. In one aspect the method includes detecting a first media player access to a first presentation device to play a first media stream. The method further includes accessing first presentation focus information for determining whether the first media player has first presentation focus for playing the first media stream.

Id. at 1:57–63. The '558 patent explains that "presentation focus refers to an attribute associated with a media player, directly and/or indirectly, indicating whether the media player is allowed to access one or more presentation devices for playing one or more corresponding media streams on the presentation devices." *Id.* at 9:43–48. "Presentation focus is an attribute for restricting and coordinating access to an output device by one or more applications." *Id.* at 9:60–62. "Presentation focus information identifies and/or otherwise enables the identification of one or more media players and whether the media players have presentation focus." *Id.* at 9:20–23.

A change in the presentation focus may result from a user input such as pressing "play." *Id.* at 11:50–52 ("A user input for identifying a particular media stream and/or player to play may be detected resulting in a change to presentation focus information."). The utilization of multiple presentation devices is discussed:

> In another aspect, presentation focus information may identify more than one media stream of one or more media players for playing on one or more presentation devices. That is, multiple presentation devices may play media streams at the same time and/or multiple media players may play corresponding media streams on a shared presentation device.

Id. at 9:28–34.

D. Illustrative Claim

Of the challenged claims of the '558 patent, claim 1 is an independent claim. The remaining challenged claims depend directly or indirectly from claim 1. Claim 1, reproduced below with emphasis added and bracketed annotations[4] inserted, is illustrative:

1[a]. A first presentation device, comprising:

[1b] a non-transitory memory storing instructions;

[1c] a touchscreen; and

[1d] one or more processors in communication with the non-transitory memory and the touchscreen, wherein the one or more processors execute the instructions to:

[1e] provide access to a first media player and a second media player in an execution environment, [1f] the first presentation device capable of communication with a second presentation device including a display via a wireless network on which the first presentation device resides, [1g] where presentation focus information is accessible for identifying whether at least one of the first presentation device or the second presentation device is to be utilized for presentation;

[1h] detect access to the first media player to play a first media stream that includes video;

[1i] indicate, if the first presentation device is to be utilized for presentation based on the presentation focus information, that the first media stream is allowed to be presented via the first presentation device; and

[1j] indicate, if the second presentation device is to be utilized for presentation based on the presentation focus information, that the first media stream is allowed to be presented via the second presentation device;

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[4] We utilize Petitioner's annotations for claim 1 for ease of reference but have retained the paragraph formatting from the issued patent.

[1k] wherein the first presentation device is operable such that a change in presentation focus is capable of being based on at least one of a releasing of a first presentation focus in connection with the first media player, a detected user input indication for giving the second media player a second presentation focus, a change in input focus, a change in an attribute of a user interface element, a count of media streams being played, a ranking of media streams being played, a transparency level of at least one of the user interface element, or another user interface element sharing a region of a display of the first presentation device.

Ex. 1001, 28:65–29:35.

E. Evidence

Petitioner relies on the following references:

Reference	Exhibit No.
US Pat. App. Pub. No. 2010/0138780 A1, filed May 20, 2009, published June 3, 2010 ("Marano")	Ex. 1003
US Pat. App. Pub. No. 2009/0228897 A1, filed March 4, 2009, published Sept. 10, 2009 ("Murray")	Ex. 1006

Petitioner also relies on the Declaration of Dr. Benjamin B. Bederson (Ex. 1002) in support of its arguments. The parties rely on other exhibits as discussed below.

F. Asserted Ground of Unpatentability

Petitioner asserts the following ground of unpatentability:

References	Basis	Claims
Marano and Murray	§ 103(a)	1–10, 12, and 13

II. ANALYSIS

A. Principles of Law

Petitioner bears the burden of persuasion to prove unpatentability of the claims challenged in the Petition, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

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 on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) any objective evidence of non-obviousness.[5] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. The Level of Ordinary Skill in the Art

Petitioner's declarant, Dr. Benjamin B. Bederson, opines that:

> In the relevant timeframe, a person of ordinary skill in the art had at least a Bachelor's Degree in Computer Science and two years of work experience programming personal computing systems including programming for audio-visual presentation within various computer systems.

Ex. 1002 ¶ 29; *see* Pet. 50. Patent Owner, at this time, does not address explicitly the level of skill in the art. Dr. Bederson's definition is consistent

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[5] The parties have not directed our attention to any objective evidence of non-obviousness.

with the level of ordinary skill reflected in the prior art references of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art itself may reflect an appropriate level of skill in the art). For purposes of this decision, we apply Dr. Bederson's definition of the person of ordinary skill in the art.

C. Claim Construction

In an *inter partes* review requested in a petition filed on or after November 13, 2018, we apply the same claim construction standard used in district courts, namely that articulated in *Phillips v. AWH Corp.,* 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 83 Fed. Reg. 51,340, 51,343 (Oct. 11, 2018). In this case, the Petition was filed on December 3, 2018, and we, therefore, apply that standard here. In so doing, we construe a claim "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b).[6]

The '558 patent has been the subject of two claim construction orders issued by the District Court for the Eastern District of Texas—in *Cypress Lake Software, Inc. v. ZTE (USA) Inc.*, Case No. 6-17-cv-00300 (E.D. Tex.) (Ex. 1013, "the *ZTE* Claim Construction Order," signed August 23, 2018) and in *Cypress Lake Software, Inc. v. Samsung Electronics America, Inc.*, Case No. 6-18-cv-00030 (E.D. Tex.) (Ex. 1022, "the *Samsung* Claim Construction Order," signed May 10, 2019).

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[6] The parties do not direct our attention to anything in the prosecution history (Ex. 1009) in support of the proposed constructions.

1. Presentation Focus and Presentation Focus Information

The parties to the *ZTE* litigation (Patent Owner Cypress Lake and defendant HP Inc.) agreed to the following proposed constructions of "presentation focus" and "presentation focus information" within the meaning of claim 14 of the '558 patent:

> [P]resentation focus [refers to] an attribute associated with a media player, directly and/or indirectly, indicating whether the media player is allowed to access one or more presentation devices for playing one or more corresponding media streams on the presentation devices; an attribute for restricting and coordinating access to an output device by one or more applications [; and]

> [P]resentation focus information [refers to] data that identifies one or more media players and whether the media players have presentation focus.

Ex. 1013, 12; *see also* Ex. 1010, 2 (Joint Claim Construction Statement, "Cypress and HP have agreed on the following constructions"). The *ZTE* District Court adopted those agreed constructions. *Id.* at 13. We note that parties to the *Samsung* litigation also agreed to the same or similar construction for "presentation focus" within the meaning of claims 14 and 17, and the District Court adopted that agreed construction. Ex. 1022, 13, 15.

Petitioner argues that the agreed constructions in the *ZTE* Claim Construction Order are supported by the Specification and that they should be adopted here. Pet. 17–18 (citing Ex. 1001, 9:15–25; Ex. 1002 ¶¶ 50–51). We determine that the proposed constructions are consistent with descriptions in the Specification and are applicable to independent claim 1 and its dependent claims. *See* Ex. 1001, 9:20–23, 43–48, 60–62.

On this record and for purposes of this decision, we adopt the constructions for "presentation focus" and "presentation focus information," as set forth above.

2. Instructions To . . .

a. The District Court Constructions

Independent claim 1, challenged here, as well as the other independent claims of the '558 patent (claims 14 and 24) recite "wherein the one or more processors execute the instructions to . . ." followed by a list of actions. Particularly pertinent to the present case, claim 1 recites:

> instructions to . . . indicate, if the first presentation device is to be utilized for presentation based on the presentation focus information, that the first media stream is allowed to be presented via the first presentation device.

Ex. 1001, 29:15–18. Claim 1 also contains a similar recitation directed to the second presentation device. *See id.* at 29:19–23. Recitations containing the "instructions to" phrase have been the subject of at least the two claim construction orders issued by the District Court for the Eastern District of Texas. *See* Ex. 1013 (the *ZTE* Claim Construction Order), Ex. 1022 (the *Samsung* Claim Construction Order).

In the *ZTE* Claim Construction Order, the District Court determined that the "instructions to" recitations of claim 14 (not of claim 1) of the '558 patent are *not* governed by 35 U.S.C. § 112 ¶ 6 and are to be given their plain and ordinary meaning. Ex. 1013, 66–67.

Recently, the District Court issued the *Samsung* Claim Construction Order. Ex. 1022. In that order, the District Court addressed the "instructions to . . . indicate" phrase of claim 1 and the "instructions to . . . in response" phrase of dependent claim 17. *See, e.g., id.* at 86. The District

Court concluded that the "instructions to . . . indicate" phrase of independent claim 1 *is* governed by 35 U.S.C. § 112 ¶ 6. *Id.* The District Court also determined that the "instructions to . . . in response" phrase of dependent claim 17 is *not* governed by 35 U.S.C. § 112 ¶ 6, and should be given its plain and ordinary meaning. *Id.*

For claim 1, the District Court in *Samsung* determined that the functions for the two "instructions to . . . indicate" phrases are, respectively: "indicate . . . that the first media stream is allowed to be presented via the first presentation device" and "indicate . . . that the first media stream is allowed to be presented via the second presentation device." *Id.* at 91. The District Court further determined that the corresponding structure is: "A processor programmed to perform one or more of the steps for indicating that the media stream is allowed to be presented via the presentation device disclosed in the '558 Patent at [14:]7–50, 23:24-49, 25:55–26:9." *Id.* at 92–94, 95; *see also id.* at 92–94 (same).

b. The Parties' Claim Construction Positions

In the Petition, Petitioner took the position:

> For the limited purpose of the present petition, the Petitioners apply the court's interpretation in *ZTE* that claim terms of the form "instructions to . . . [perform a function]" are not governed by 35 U.S.C. §112 ¶6 . . . . Petitioners apply the art to the challenged claims in this petition in a manner that is generally consistent with how Cypress Lake appears to be asserting the "instructions to" limitations of the '558 patent in the related district court litigations.

Pet. 18–19 (bracketed alteration in original). In light of the Court's interpretation as set out in the *ZTE* Claim Construction Order, we understand the Petition to apply the "plain and ordinary meaning" of "instructions to" in the articulation of its challenges. Patent Owner did not file a Preliminary

Response and thus initially did not identify its position on claim interpretation.

After the issuance of the *Samsung* Claim Construction Order, the parties filed briefs to address the impact, if any, of the District Court's construction on the case before us. Petitioner argues that the outcome in this case does not change because "[t]he prior art in the petition (Marano in view of Murray) renders claim 1 and its dependent claims obvious under the *Samsung* order's construction of 'instructions . . . to indicate.'" Pet.'s Cl. Constr. Br. 2–3. Patent Owner argues that the District Court in *Samsung* erred in its claim construction, but does not indicate how any such alleged error affects the merits of this case. *See* PO's Cl. Constr. Br. 2–5.

Patent Owner argues that the claim phrase "instructions to . . . indicate" should be given its plain and ordinary meaning. *Id.* at 5. As mentioned, that is the construction that Petitioner applied in the Petition. Thus, at this stage, there does not appear to be a dispute between the parties on this point. Because of this and because, as discussed below, Petitioner has demonstrated a reasonable likelihood of showing that—under either of the above-referenced constructions—subject matter having the "instructions to . . . indicate" limitation would have been obvious, we determine that the limitation does not require express construction for purposes of this decision.

We expect that the parties will brief the proper construction of "instruction to . . . indicate" in the trial briefs, especially if either party contends that the prior art does or does not disclose, teach, or suggest the claim limitation under a particular construction.

D. The Alleged Obviousness of
Claims 1–10, 12, and 13 Over Marano and Murray

Petitioner, relying on the testimony of Dr. Bederson (Ex. 1002) for support, alleges that all of the challenged claims—claims 1–10, 12, and 13 of the '558 patent—would have been obvious over Marano and Murray. *See, e.g.*, Pet. 51–64 ("claim mapping" for claim 1). Petitioner contends that "Marano allows the output of software on one computer be presented on any of a number of possible devices," that "Murray, in turn, teaches coordinating among *media players* to avoid interference," and that "[i]t would have been obvious to use Murray's idea to coordinate among media players within Marano's system." *Id.* at 20 (citing Ex. 1002 ¶¶ 53–55). Patent Owner opted to not file a preliminary response and does not, in its Claim Construction Brief (Paper 10), identify any alleged flaw in Petitioner's articulation of the ground in the Petition. We determine Petitioner has shown a reasonable likelihood that at least one claim of the '558 patent is unpatentable under the asserted ground based on Marano and Murray.

1. Marano (Ex. 1003)

Marano discloses the use of external display devices with a mobile computing device. Ex. 1003 ¶ 2. "When an external display device is connected or attached to a mobile computing device, output data associated with a resource executing on the mobile computing device may be displayed on the external display device." *Id.* Figure 2C of Marano is shown below.
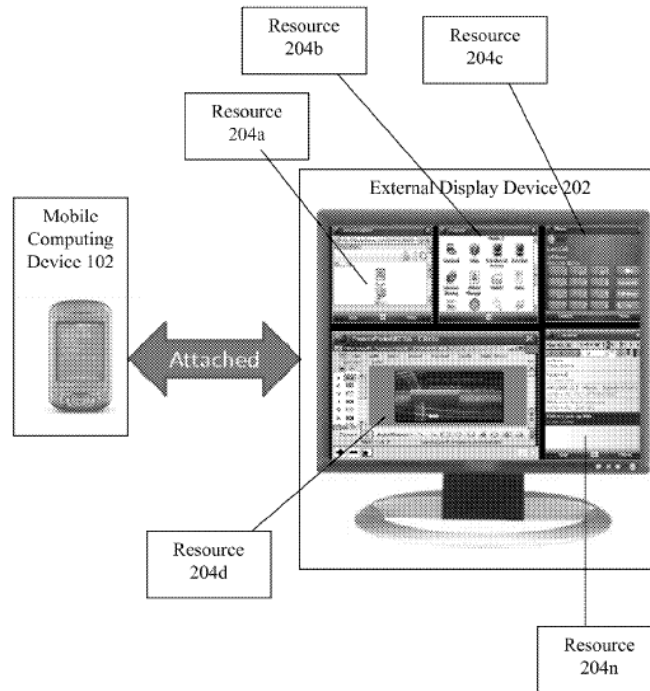
Figure 2C depicts an "embodiment of a system for displaying a plurality of resources in a user-configurable display layout on an external display device." *Id.* ¶ 22. A "resource" may be an application. *Id.* ¶ 93.

Marano discloses the use of a window management service. As shown in Figure 2A, reproduced below, the window management service is located between the resources and the displays.
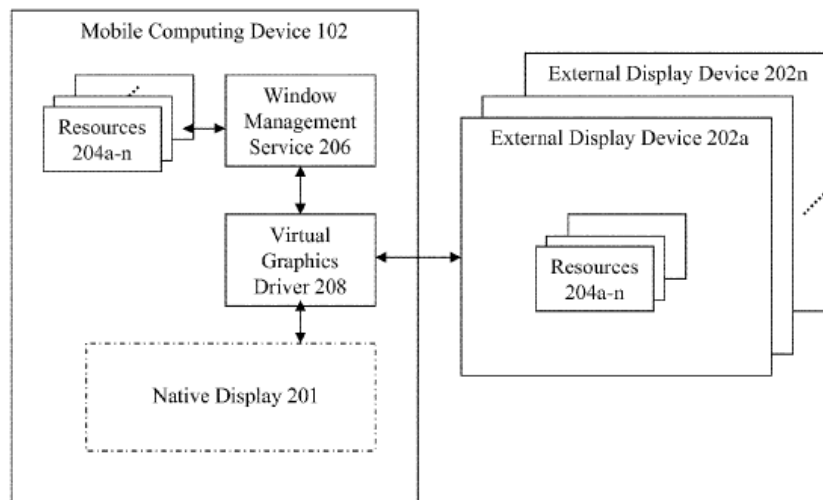
Figure 2A is a block diagram depicting a system for displaying a plurality of resources in a user-configurable display layout on an external display device. *Id.* ¶ 20. "The window management system 206 and virtual graphics driver 208 manage the locations and sizes of the display of output data associated with each of the plurality of resources in a user-configurable display layout." *Id.* ¶ 91. The window management system may transmit the output of resources to the mobile computing device's native display, an external display, or a combination thereof. *Id.*

Marano teaches that the window management service may store associations between resources and cells on a grid display layout. *Id.* ¶ 112. "In some embodiments, the user may associate a plurality of resources with the same cell and prioritize the resources to determine which output data will be displayed in the cell if more than one of the associated resources are being executed." *Id.*

2. Murray (Ex. 1006)

Murray pertains to media players that control the playback of other media players. Ex. 1006 ¶ 2. Murray explains that it was known to have a media player embedded in a web page or a separate application launched upon accessing a web page that streams content. *Id.* ¶ 3. A user may navigate from one website streaming content to another such that two media players produce audio or video output simultaneously. *Id.* This would require the user to locate the media player desired to be stopped and then actively stop that media player. *Id.*

In addressing this, Murray describes the use of prioritization to avoid simultaneous player output.

> A user may experience a computer or other system running
> several media players at the same time. In embodiments of the

> present invention, these media players coordinate media playback control with each other using bidirectional communications, so that only one media player plays media at a given time. The media players may establish a priority for playback, and only the player with the highest priority may play. When the highest priority player finishes, the system may remove this media player from the priority list, and allow the media player with next highest priority to play. In this way, only one media source plays at any time. Additionally, the media players will respond to user interactions and user interactions will be assigned the highest priority.

Ex. 1006 ¶ 25. Murray further explains that, "[g]enerally, to provide the best end user experience, a media player is assigned the highest priority when the user interacts with it." *Id.* ¶ 53. For user interaction, Murray describes a media player having visible controls, such as icons or buttons for starting and stopping media. *Id.* ¶ 29. Figure 1 is shown below.
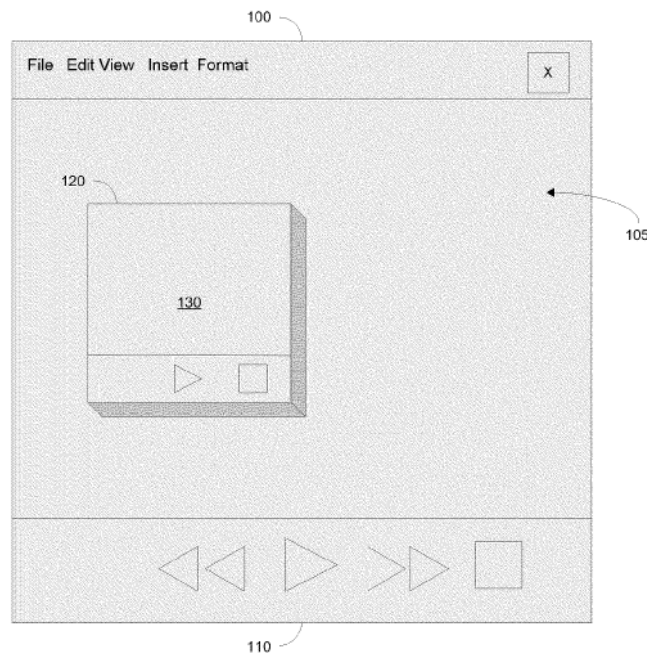

Figure 1 shows an internet browser and two media players. *Id.* ¶ 18.

Murray discusses the interaction between two competing media players and the change in priority due to user interaction. *Id.* ¶¶ 52–57. For

example, if a user presses "play" on the second media player while the first media player is playing, a priority allocation arises, with the second media playing having highest priority because it is the subject of the most recent user interaction. *Id.* ¶ 52. The change of active media players is explained with reference to Figure 5:

> At some later time, second media player 506 will begin to play media. However, before the media can be played, the first media player may be stopped. Thus, in process 525 second media player 506 sends a "stop playing" message to first media player 504 using a LocalConnection. The first media player 504 may then become aware that another media player with higher priority wishes unimpeded access to the audio or video device, and in exemplary embodiments, may pause or stop playing in process 526. On or about the same time, second media player begins to play its own media in process 527.

Id. ¶ 57.

3. The Alleged Obviousness of Claim 1 in View of Marano and Murray

a. 1[a]. A first presentation device

Petitioner asserts that Marano discloses a presentation device in the form of Mobile Computing Device 102 having native display 201. Pet. 52 (citing Ex. 1006 ¶¶ 91–92, Fig. 2A).

b. [1b] a non-transitory memory storing instructions

Petitioner asserts that Marano's Mobile Computing Device is an example of computing device 100, which can have a hard disk drive, for example, storing instructions. *Id.* at 52–53 (citing, *inter alia*, Ex. 1003 ¶¶ 80, 85, 87). Petitioner contends that it would have been obvious that, in the computer of the proposed modification, "all subsequent actions (*i.e.* all functional claim elements) are carried out by the execution of instructions." *Id.* at 53 (citing Ex. 1002 ¶ 111).

c. [1c] a touchscreen

Petitioner asserts that Marano discloses that many modern mobile devices had touch screens, and contends that it would have been obvious to use a touchscreen with Mobile Computing Device 102 "for the known advantages of allowing a user to interact with screen content without carrying an attached keyboard and mouse." *Id.* at 53–54 (citing Ex. 1002 ¶ 112).

> *d. [1d] one or more processors in communication with the non-transitory memory and the touchscreen, wherein the one or more processors execute the instructions to . . .*

Petitioner asserts that Marano's computing device 100 has a processor (CPU 121) in communication with storage device 128 to cause loading of software instructions from the storage device to be executed by CPU 121. *Id.* 54–55 (citing Ex. 1003 ¶¶ 75–78). Petitioner contends that a person of ordinary skill in the art "would have understood that the CPU 121 must and obviously did communicate with the touch screen to tell the touch screen what to display, and to receive input commands from the touch screen." *Id.* at 55 (citing Ex. 1003 ¶ 77; Ex. 1002 ¶ 113).

e. *[1e) instructions to:] provide access to a first media
player and a second media player in an execution
environment, [1f] the first presentation device capable
of communication with a second presentation device
including a display via a wireless network on which the
first presentation device resides, [1g] where
presentation focus information is accessible for
identifying whether at least one of the first presentation
device or the second presentation device is to be
utilized for presentation*

Petitioner asserts that Marano teaches an execution environment, and
compares Marano's Figure 1B to the description of an "execution
environment" in the '558 patent. *Id.* at 55 (citing Ex. 1001, 3:33–36 ("An
execution environment is an arrangement of hardware and, optionally,
software that may be further configured to include an arrangement of
components for performing a method of the subject matter described
herein.")); *see* Ex. 1001, 3:44–50 (The Specification of the '558 patent
explaining that "[e]xemplary devices included in or otherwise providing
suitable execution environments for configuring according to the subject
matter include personal computers, . . . mobile devices, multiprocessor
systems, consumer electronic devices, ...").

Petitioner asserts that Marano teaches providing access to a plurality
of resources that can be any application, including those that output video,
and that Murray teaches multiple media players (applications that play a
media stream) in the same computing environment, and that it would have
been obvious for Marano's system to provide access to two media players.
Pet. 55–56 (referring to the reasoning in § III.C.2 of the Petition and citing
Ex. 1003 ¶¶ 91–93, 104; Ex. 1006 ¶¶ 3, 24, 28, 32, Fig. 1; Ex. 1002 ¶¶ 115–
117).

Petitioner further asserts that Marano teaches that Mobile Computing Device 102 (mapped to the first presentation device) is capable of communicating with External Display Device 202 (a second presentation device with a display), and that the communication can take place wirelessly by, for example, Bluetooth or Wi-Fi. *Id.* at 56 (citing Ex. 1003 ¶¶ 91, 95). Petitioner asserts that Marano teaches that communicating devices can be on the same network and therefore it would have been obvious that the Mobile Computing Device (first presentation device) could reside on the same network as the External Display Device (second presentation device). *Id.* (citing Ex. 1002 ¶ 120; Ex. 1003 ¶¶ 64–65).

Claim 1 further recites "where presentation focus information is accessible for identifying whether at least one of the first presentation device or the second presentation device is to be utilized for presentation." For this aspect of the claim, Petitioner asserts that Marano keeps track of information that associates resources (*e.g.*, media players) with output devices (*i.e.* presentation devices). Pet. 57. Petitioner further asserts that, in the proposed combination, such information in Marano would have been combined with the priority information of Murray "such that each media player is associated with one or more output devices and has a priority for each output device." *Id.* (citing Ex. 1002 ¶ 122). Petitioner refers to the combination of Marano's information regarding resource-to-presentation-device association with Murray's priority for associated output as "combined information." Pet. 38–39. Petitioner contends that this combined information would be "presentation focus information" within the meaning of the '558 patent, and the information would be accessible by Marano's window management service. *Id.* at 57–58 (citing Ex. 1002 ¶¶ 123, 126).

> f. *[1h) instructions to:] detect access to the first media*
> *player to play a first media stream that includes video*

Petitioner asserts that Marano offers the general teaching of standard applications that the user may access and that may be detected in the normal ways by the window management service. *Id.* at 59 (citing Ex. 1002 ¶ 127; Ex. 1003 ¶¶ 7, 25). Petitioner further asserts that Murray specifically teaches accessing media players to play a video media stream, with the media players having standard controls like play and stop buttons. *Id.* at 59–60 (citing Ex. 1006 ¶ 29, Fig. 1). Petitioner contends that it would have been obvious to detect user interactions with the media player because otherwise the system could not respond when, for example, the user presses the play button on the media player. *Id.* at 61 (citing Ex. 1002 ¶ 137).

> g. *[1i) instructions to:] indicate, if the first presentation*
> *device is to be utilized for presentation based on the*
> *presentation focus information, that the first media*
> *stream is allowed to be presented via the first*
> *presentation device*

As mentioned above, the Petition applies the District Court's interpretation, as set forth in the *ZTE* Claim Construction Order, of the "instructions to" phrase as *not* a means-plus-function term under 35 USC §112 ¶ 6. Pet. 18–19; *see* Ex. 1013, 66–67 (*ZTE* Claim Construction Order). The Petition asserts that the "combined information" of the proposed combination—Marano's resource/display association information plus Murray's prioritization information—would determine whether any particular media player is allowed to be play on any particular presentation device. *Id.* at 61–62 (citing Ex. 1002 ¶ 132). Petitioner further asserts that Marano's window management service would, when appropriate, permit (i.e. allow) a first media player to present a media stream via a first

presentation device. *Id.* at 62 (citing Ex. 1003 ¶ 94 ("In one embodiment,

the mobile computing device 102 includes a window management

service 206 allowing an external display device 202 to display the output

data associated with each of a plurality of resources 204 executed on the

mobile computing device 102.").

Petitioner, in its brief discussing the relevance of the recently issued

Samsung Claim Construction Order, contends that applying the

interpretation in that order does not change the outcome because the prior art

in the Petition continues to render obvious the challenged claims. Pet.'s Cl.

Constr. Br. (Paper 11), 2–3. According to Petitioner, "[t]he Petition

explained that the combination of Marano in view of Murray is a

microprocessor-based system that executes instructions to perform certain

functions," and that execution of the recited "indicate" function is performed

by Marano's window management service. *Id.* at 2–3 (citing Pet. 52–53,

40–41).

Regarding corresponding structure identified in the *Samsung* Claim

Construction Order (Ex. 1022, 92–94, 95), Petitioner asserts:

> Marano's WMS [window management service] performs
> this algorithm [at column 14, lines 19–25, of the '558 patent]. As
> explained in the Petition, the WMS plays the coordinating role in
> the combination, allowing or not allowing access to presentation
> devices by media players. (Pet. 40-41)(Ex. 1002, ¶¶0085-0089).
> The WMS's central role is shown in the figure on page 40 of the
> Petition, where the WMS 206 sits between the software resources
> and presentation devices, and controls access to the presentation
> devices by the resources. (Pet. 39-41)(Ex. 1002, ¶¶88-89 and 64-
> 65)(explaining the coordinating role of the WMS). In the
> combination, the WMS further determines whether presentation
> should be allowed (Ex. 1003, ¶¶0094, 0118), and if so, "instructs
> the virtual graphics driver 208 to forward the output data

generated by the resource 204 to the external display device…."
(Ex. 1003, ¶0119), (Ex. 1002, ¶¶64-65, 88-89), (Pet. 40-41)
(explaining that WMS uses associations between resources and
output device and checks priority). Because the WMS in the
Marano-Murray combination performs the coordination of
resource access to presentation devices, the WMS is a
"presentation access component" or equivalent under the '558
patent. (*compare* Ex. 1001, 18:26-49). Furthermore, because the
WMS coordinates and allows (or does not allow) forwarding of
output data to presentation devices (Ex. 1003, ¶¶0118-0119,
0094), it is "passing along" (or not) the output data of its
resources (e.g. media players), thereby "indicating" whether a
media player is allowed to play.

Id. at 3–4; *see also* Pet. 39 ("A POSITA would have found it obvious to use
Marano's window management service to keep the 'combined information'
and perform the coordination among media players by *indicating* whether
media players are allowed to play on a presentation device." (emphasis
added)), 40–41 ("In the combination, . . . the window management service
would indicate whether a media player is permitted to present media via a
certain output device.").

> h. *[1j) instructions to:] indicate, if the second
> presentation device is to be utilized for presentation
> based on the presentation focus information, that the
> first media stream is allowed to be presented via the
> second presentation device*

Petitioner asserts that its analysis of the immediately-preceding
"instructions to . . . indicate" recitation applies equally as to this recitation
pertaining to the second presentation device. Pet. 62. Petitioner further
asserts that "Marano teaches that a user can configure a resource to output to
a first or second presentation device." *Id.* (citing Ex. 1002 ¶ 135; Ex. 1003
¶¶ 91, 94).

     i. *[1k] wherein the first presentation device is operable such that a change in presentation focus is capable of being based on at least one of a releasing of a first presentation focus in connection with the first media player, a detected user input indication for giving the second media player a second presentation focus, a change in input focus, a change in an attribute of a user interface element, a count of media streams being played, a ranking of media streams being played, a transparency level of at least one of the user interface element, or another user interface element sharing a region of a display of the first presentation device*

     Petitioner asserts that Murray teaches that user access to a media player should change the priority. Pet. 63 (citing Ex. 1006 ¶¶ 25 ("[T]he media players will respond to user interactions and user interactions will be assigned the highest priority."), 53; Ex. 1002 ¶ 137). Petitioner maps this with the claim's recitation of "a detected user input indication for giving the second media player a second presentation focus." *Id.* Petitioner further asserts that Murray teaches a change in presentation focus based on a releasing of a first presentation focus in connection with the first media player, based on a ranking of media streams, and a change in an attribute of the user interface element (*e.g.*, pressing a play or stop button). *Id.* at 63–64 (citing Ex. 1006 ¶ 60; Ex. 1002 ¶¶ 138–139).

     j. Reason to Combine

     Petitioner reasons, *inter alia*, that Marano's system is running multiple resources simultaneously, thereby creating the potential for media player conflict and, because of this, it would have been obvious to utilize Murray's media player prioritizing technique in Marano's system to avoid the possible interference. Pet. 35–38 (citing Ex. 1002 ¶¶ 75–80). Petitioner further argues:

> [I]t would have been obvious to supplement information already stored by Marano by adding an indication of priority, as suggested by Murray. (Ex. 1002, ¶81). As discussed above in §III.B.1, Marano obviously maintains an association between each executing resource and its assigned presentation device(s). Because Marano associates at least one presentation device with each resource (which can be a media player), and Murray associates a priority with each media player, it would have been obvious to associate each resource with one or more presentation devices (as Marano already teaches) *and* a priority for each associated output device (as Murray renders obvious). (Ex. 1002, ¶81).

Pet. 38–39 (citing Ex. 1002 ¶¶ 80–84). According to Petitioner, "[t]he combined information would have provided the advantage expressly described in Murray, namely avoiding interference between media players, while still maintaining the advantage of Marano—the ability to use multiple output devices." *Id.* at 39 (citing Ex. 1002 ¶¶ 80, 84).

Petitioner, relying on the testimony of Dr. Bederson, additionally argues that, "[b]ecause the window management service is the software responsible for coordinating between resources and output devices in Marano, it would have been obvious to have it perform this function in the combined system, by storing and using the combined information." *Id.* at 39–40 (citing Ex. 1002 ¶¶ 85–86).

Petitioner also argues that "it would have been obvious to use Murray's detect-and-pause functionality to avoid conflicts." *Id.* at 48 (citing Ex. 1002 ¶ 101). Petitioner reasons, based in part on Murray's teaching of setting recent user interaction as the highest priority, that a user expects a media player to play upon pressing the "play" button and therefore it would have been obvious to have the system monitor that button and to play the

media without interference from other media players. *Id.* at 48–50 (citing Ex. 1002 ¶¶ 77, 102–104, 123).

Petitioner also argues that there would have been a reasonable expectation of success in combining the references' teachings as proposed. *Id.* at 50–51. Petitioner relies on Dr. Bederson's testimony and other evidence for the propositions that the art was relatively predicable and that the pertinent systems were well-known at the relevant timeframe. *Id.* (citing Ex. 1002 ¶ 105; Ex. 1017 ¶¶ 595–596; Ex. 1020, 3–7, 17).

4. Determinations as to the Alleged Obviousness of the Challenged Claims over Marano and Murray

Having considered the evidence and all of the parties' arguments (including those in the claim construction briefs), we are persuaded that Petitioner has articulated a sufficient reason, for purposes of this Decision, why one of ordinary skill in the art would have combined the teachings of Marano and Murray. We determine that Petitioner has demonstrated sufficiently, for purposes of this Decision, that the proposed combination teaches or suggests each limitation of at least challenged independent claim 1. Petitioner presents argument and evidence concerning the remaining challenged dependent claims. Pet. 64–79. We have considered and addressed above the brief filed by Patent Owner concerning claim construction.

We determine that Petitioner has established that there is a reasonable likelihood of prevailing with respect to at least one claim challenged as being unpatentable under 35 U.S.C. § 103 as obvious over Marano and Murray.

III. CONCLUSION

Petitioner has demonstrated a reasonable likelihood of prevailing in showing the unpatentability of at least one of the challenged claims of the '558 patent. At this stage of the proceeding, we have not made a final determination with respect to the patentability of any of the challenged claims.

IV. ORDER

For the foregoing reasons, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–10, 12, and 13 of the '558 patent is instituted with respect to the sole ground of unpatentability set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '558 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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