

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC.,
Petitioner,

v.

AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED,
Patent Owner.

Inter Partes Review No. IPR2021-00303

U.S. Patent No. 8,270,992 B2

PATENT OWNER'S PRELIMINARY RESPONSE

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LIST OF EXHIBITS

1001	U.S. Patent No. 8,270,992 ("the '992 Patent")
1002	Prosecution File History for the '992 Patent ("File Hist.")
1003	Declaration of Harley R. Myler, Ph.D., P.E. ("Myler Decl.")
1004	U.S. Patent Publication No. 2003/0065805 A1 to Barnes ("Barnes")
1005	U.S. Patent No. 7,299,291 to Shaw ("Shaw")
1006	Real Time Streaming Protocol (RTSP), RFC2326, IETF 1998. http://www.ietf.org/rfc/rfc2326.txt .
1007	<i>Broadcom Corp. v. Netflix, Inc.</i> , Case No.: 3:20-cv-04677-JD, DI 90 (N.D. Cal.) (Sept. 24, 2020) ("Broadcom Opposition")
1008	U.S. Patent Publication No. 2001/0025378 A1 to Sakamoto et al. ("Sakamoto")
1009	PCT Appl. Pub. No. WO 00/16550 to Gomez et al.
2001	Harry Newton, Newton's Telecom Dictionary; CMP Books (20 th ed. Mar. 2004) ("Newton's Telecom Dictionary")

Patent Owner Avago Technologies International Sales Pte. Limited ("Avago" or "Patent Owner") hereby respectfully submits this Preliminary Response to the Petition for *Inter Partes* Review, Case No. IPR2021-00303 (the "Petition"). This filing is timely under 35 U.S.C. § 313 and 37 C.F.R. § 42.107(b), as it is being filed within three months of the December 23, 2020 mailing date of the Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response (Paper 3).

The Patent Trial and Appeal Board (the "Board") should decline to institute *inter partes* review in this matter because none of the references or combinations of references relied upon by Netflix, Inc. ("Petitioner") establish a reasonable likelihood that Petitioner will prevail with respect to any challenged claim of U.S. Patent No. 8,270,992 (the "'992 Patent").

I. INTRODUCTION

The Petition challenges the validity of Claims 1-14 and 16-19 of the '992 Patent (the "Challenged Claims"). "The Director may not authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition filed under section 311 . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged" 35 U.S.C. § 314(a). The Petition fails to establish any ground on which there is a reasonable likelihood of any challenged claim being found invalid.

First, the Petition does not properly define and apply the applicable legal standards for anticipation or obviousness, as required by 37 C.F.R. § 42.22(a), and thus, is procedurally deficient. Second, the Ground proposed in the Petition fails to establish that the references teach each and every feature arranged as recited by the respective claims of the '992 Patent and, thus, do not establish a *prima facie* case that any challenged claim is either anticipated or obvious. Finally, the Petition fails to provide any evidence to support cancelation of Claims 14 and 19.

II. BACKGROUND

A. Procedural History

Broadcom Corporation ("Broadcom") and Avago filed a lawsuit against Petitioner for infringement of the '992 Patent and eleven other patents. *See Broadcom Corp. et al. v. Netflix, Inc.*, No. 8:20-cv-00529 (C.D. Cal. 2020). The case was subsequently transferred to the N.D. Cal. on July 14, 2020, No. 3:20-cv-04677 (N.D. Cal. 2020). Petitioner filed the Petition on December 14, 2020, challenging Claims 1-14 and 16-19 (the "Challenged Claims") of the '992 Patent.

The '992 Patent has not been previously asserted in any related lawsuits.

B. The '992 Patent

The '992 Patent is directed to a portable system and a method for providing digital media service to a user. The quality of the service provided by a portable media system in the early 2000s was limited by various constraints. The title of the

'992 Patent aptly suggests that a solution to overcome these constraints is through "automatic quality of service based resource allocation."

The portable system described in the '992 Patent can provide the user a higher quality of digital media service by utilizing resources from a second system, as recited in the Challenged Claims and explained in the specification. FIG. 5 of the '992 Patent, as reproduced below, provides an exemplary resource allocation scenario in which the portable system is a personal digital assistant ("PDA") (515) and the second system is a desktop computing system (555).

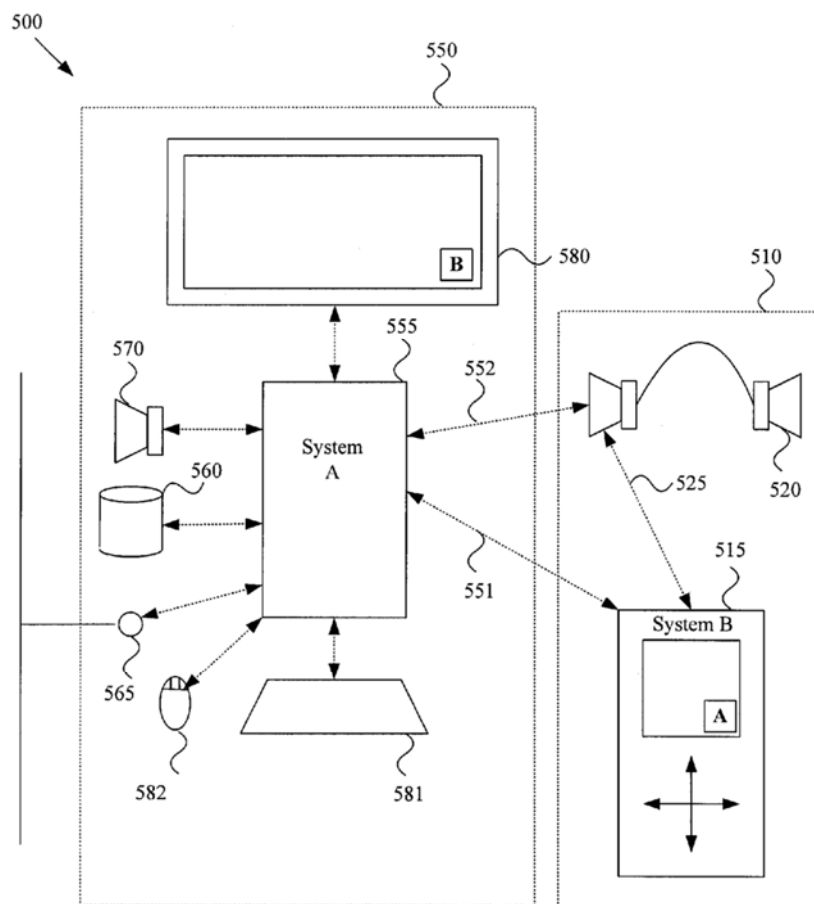
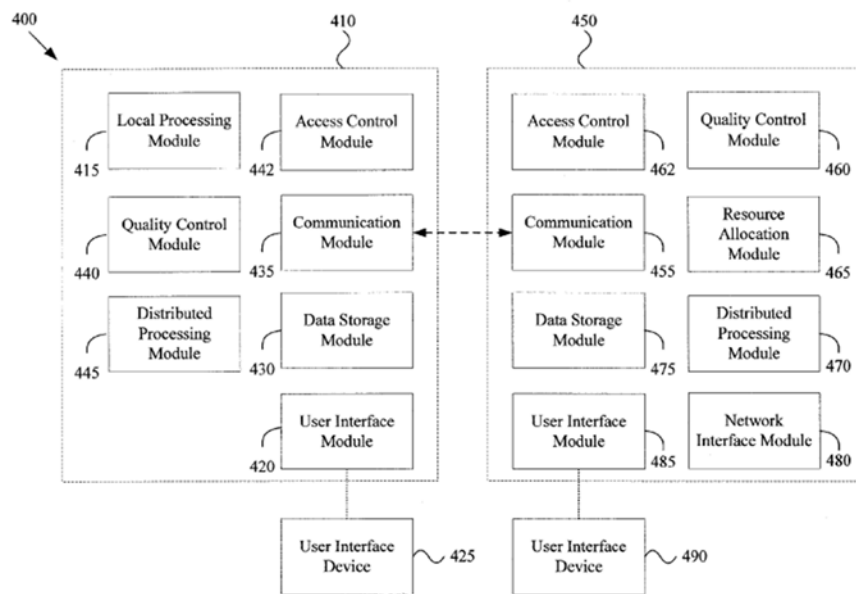


Figure 5

According to the '992 Patent, the portable system provides the digital media service to the user. "A 'service' is generally a function performed by the first system [the portable system] for the ultimate benefit of the user." Ex. 1001 ('992 Patent) at 3:16-18. Constraints (*e.g.*, such as storage size, processing capability, communication capability, software application, and information access) limit the quality of service that the portable system can provide. *See, e.g., id.* at 7:16-29, 11:32-54, 12:15-50. Due to a constraint in storage, the portable system "may have decided to store MP3 information in the PDA . . . memory in a highly compressed state, thereby trading audio quality for the ability to store more music." *Id.* at 4:55-58. Obtaining higher quality content from a second system (*e.g.*, CD-quality music stored by a desktop computing system 555 (*see id.* at 6:43-44)) can address the storage constraint, but the portable system still operates under other constraints. The processing capability may be, for example, related to available hardware or software resources on the portable system. *Id.* at 5:10-11.

Delivering a higher quality of service to the user requires the ability to actually utilize the higher quality content. Indeed, it is not enough to merely have the ability to obtain higher quality content – afforded by "a communication bandwidth that is high enough" recited in Claims 1 and 6 (*id.* at 26:34-35, 26:61-62) or "a minimum determined communication bandwidth" recited in Claims 11 and 16 (*id.* at 27:30-31, 28:19-20) – at a second system. As described in the '992 Patent, digital content

stored at a second system improves the quality level only if a quality control module has determined that the portable system is capable of processing the higher quality content. FIG. 4 of the '992 Patent illustrates a system that implements quality of service based resource allocation and utilization:



Id., FIG. 4.

The quality control module (440) of the portable system (410) ensures that utilizing digital contents from the second system delivers a higher quality level. *See, e.g., id.* at 24:4-19. Higher bitrate or file size alone does not automatically equate to a higher quality level for the user, but rather other quality metrics are also important, including audio/video output quality, response to user input, and the number of information consumption options available to a user. *See id.* at 22:16-23. The quality control module "may determine whether utilizing various resources of the

second system 450 will increase the quality at which the current service is being provided to the user." *Id.* at 24:4-7. Such a determination may "comprise communicating and/or analyzing information related to processing capability, communication capability (including secure communication capability), and information access." *Id.* at 24:8-11. To assess the portable system's ability to take advantage of the higher quality content, the quality control module "may communicate information of data decoding and processing capability." *Id.* at 22:49-50.

The Challenged Claims include four independent claims, Claims 1, 6, 11, and 16:

1. In a portable system, a method for providing a digital media service to a user, the method comprising:
delivering digital media content having a current quality level to a user;
determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

using the network connection to obtain the digital media content at the higher quality level from the second system; and
 delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level. *Id.* at 26:29-43 (emphasis added).

6. A portable system for providing a digital media service to a user, the portable system comprising:
 at least one component operable to, at least:
 deliver digital media content having a current quality level to a user;
determine that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
 use the network connection to obtain the digital media content at the higher quality level from the second system; and
 deliver the digital media content at the higher quality level to the user instead of the digital media content at the current quality level. *Id.* at 26:55-27:3 (emphasis added).

11. In a portable system, a method for providing a digital media service to a user, the method comprising:

- delivering digital media content having a current quality level to a user;
- communicating with a second system regarding communication bandwidth of a network connection with the second system;
- determining, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth;**
- in response to at least said determining, utilizing the network connection to receive the digital media content at a quality level higher than the current quality level; and
- delivering the digital media content at the higher quality level to the user instead of the digital media content at the current quality level. *Id.* at 27:21-37 (emphasis added).

16. A portable system for providing a digital media service to a user, the portable system comprising:

- at least one component operable to, at least:
- deliver digital media content having a current quality level to a user;

communicate with a second system regarding
communication bandwidth of a network
connection with the second system;

**determine, based at least in part on said
communicating, that the network
connection is available and characterized
by at least a minimum determined
communication bandwidth;**

in response to at least said determining, utilize the
network connection to receive the digital
media content at a quality level higher than
the current quality level; and

deliver the digital media content at the higher
quality level to the user instead of the digital
media content at the current quality level.

Id. at 28:9-26 (emphasis added).

As indicated by the emphasis above, each of the independent Challenged Claims recites limitations related to providing content at a higher quality level, and specifically determining if there is a connection with appropriate bandwidth to support that higher quality level. For example, Claim 1 recites, *inter alia*, "determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level," and Claim 6 recites a substantially identical limitation. Similarly, Claim 11

recites, *inter alia*, "determining, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth," and "in response to at least said determining, utilizing the network connection to receive the digital media content at a quality level higher than the current quality level." Claim 16 recites a substantially identical limitation.

Thus, all of the independent Challenged Claims emphasize the importance of finding a connection with appropriate bandwidth, but only to the extent that the connection actually will enable the system to utilize the higher quality level content.

C. Petitioner's Cited References

Although Petitioner cites several references in the Petition, it relies on the following two references with regard to the issues set forth in this Preliminary Response:

- U.S. Patent Publication No. 2003/0065805 to Barnes ("Barnes") (Ex. 1004); and
- U.S. Patent No. 7,299,291 to Shaw ("Shaw") (Ex. 1005).

For at least the reasons explained below, Petitioner has failed to show that these two references (and/or any other references cited by Petitioner), taken either alone or in combination, render unpatentable any of the Challenged Claims.

III. CLAIM CONSTRUCTION

Petitioner proposes a construction for the term, "a portable system," and argues that the term should be considered limiting when used in the preamble of a Challenged Claim. Patent Owner does not concede these positions but submits that the terms in the Challenged Claims of the '992 Patent each has a plain and customary meaning and need not be construed. Because Petitioner's proposed constructions are not material to the arguments in this Preliminary Response, however, Patent Owner does not address the construction of those terms for the purposes of this Preliminary Response.

IV. LEGAL STANDARDS

A. *Inter Partes* Review

To institute an *inter partes* review, the Board must find a "reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Petitioner therefore carries the burden to "demonstrate that there is a reasonable likelihood that at least one of the claims challenged in the petition is unpatentable." 37 C.F.R. § 42.108(c).

The Petition must include "[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent." 37 C.F.R. § 42.22(a)(2); *see also* 37 C.F.R. § 42.104. As the Board recently reiterated, "[i]t is

of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim.'" *Everstar Merch. Co., Ltd. v. Willis Elec. Co., Ltd.*, PGR2019-00056, 2021 WL 653034, at *12 (PTAB Feb. 18, 2021) (quoting *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016)).

B. Anticipation

"To establish anticipation, each and every element in a claim, arranged as is recited in the claim, must be found in a single prior art reference." *ZTE Corp. v. ContentGuard Holdings Inc.*, IPR2013-00134, Paper 12 at 24 (PTAB June 19, 2013). "[To anticipate,] [t]here must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). Thus, the Board "must analyze prior art references as a skilled artisan would." *Microsoft Corp. v. Proxyconn, Inc.*, IPR2012-00026, Paper 73 at 33 (PTAB Feb. 19, 2014).

C. Obviousness

In addition to being novel, a valid claim must not have been obvious to a person with ordinary skill in the art at the time of the invention. *See, e.g., Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1565-68 (Fed. Cir. 1987). In

determining whether a claim is obvious, the Board considers (1) the level of ordinary skill in the pertinent art; (2) the scope and content of the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective secondary considerations of non-obviousness, if any. *See, e.g., SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1355 (Fed. Cir. 2000); *In re Gartside*, 203 F.3d 1305 (Fed. Cir. 2000). The person of ordinary skill in the art ("POSITA") is a hypothetical person who is presumed to know the relevant prior art. *See Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986).

Importantly, "[a] patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007). Rather, to establish *prima facie* obviousness, the cited references must be shown to disclose or suggest each claimed element *and* the Petition must establish that it would have been obvious to combine the teachings in the references together to arrive at the claimed invention. *See In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002). The Petition must demonstrate an apparent reason to modify a reference, or to combine the cited references to create the specific invention.

The rationale asserted by the Petition must follow from the nature of the problem to be solved, it must be "clear and particular, and it must be supported by actual evidence." *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1334 (Fed.

Cir. 2002). The combined art must narrow the scope of the inventor's task to the point where it would have been obvious to try the particular invention claimed. If the particular invention lies hidden in a multitude of other options suggested by the art, the invention is not obvious. *See, e.g., Leo Pharm. Prods. Ltd. v. Rea*, 726 F.3d 1346, 1356 (Fed. Cir. 2013); *In re Kubin*, 561 F.3d 1351, 1359-60 (Fed. Cir. 2009).

If a claim is challenged under 35 U.S.C. § 103 over a combination of references, the challenger must clearly identify the contribution of each reference to the combination. In *LG Electronics, Inc. v. Cellular Communications Equipment LLC*, the Board refused to institute on two grounds under § 103 because the Petitioner failed to explain under what circumstances the primary reference would not disclose a certain element. *See LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper 7 (PTAB Apr. 29, 2016). The Board faulted Petitioner for not indicating in the Petition that the primary reference had any deficiencies related to the element it asserts would also have been obvious in view of the secondary reference. *See id.* at 8. As a result, the Board found it unclear why a person of ordinary skill would turn to the teachings of the secondary reference for an element that, according to Petitioner, was also taught by the primary reference. *See id.*

Hindsight is forbidden in an obviousness analysis. *See In re Dembiczak*, 175 F.3d 994, 998-99 (Fed. Cir. 1999), *abrogated on other grounds by In re Gartside*,

203 F.3d 1305 (Fed. Cir. 2000); *see also Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012). Therefore, the reasons for combining references or modifying the teachings of a reference must be apparent at the time of the invention, and they must be apparent without the use of hindsight. A telltale sign of impermissible hindsight analysis is the "use [of] the invention to define the problem that the invention solves." *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1376-78 (Fed. Cir. 2012) (reversing a district court that employed hindsight analysis because the district court's obviousness finding was improperly based on art directed to the solution as opposed to art directed to the problem).

While either party in an *inter partes* review may employ the use of expert testimony to explain the relevance of references or the view of a POSITA, testimony that is conclusory or merely parrots the arguments of the brief it supports is entitled to little, if any, probative weight. *See Kinetic Techs., Inc. v. Skyworks Sol'ns, Inc.*, IPR2014-00529, Paper 8 at 15 (PTAB Sept. 23, 2014) ("Merely repeating an argument from the Petition in the declaration of a proposed expert does not give that argument enhanced probative value."); *accord Wowza Media Sys., LLC v. Adobe Sys., Inc.*, IPR2013-00054, Paper 16 at 4 (PTAB July 13, 2013) ("[e]xpert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight"). The Board has reiterated recently that:

[W]e are not persuaded by Petitioner's arguments that are not supported by [the cited references] or other factual evidence, but instead are based merely on speculation or conjecture. As the U.S. Court of Appeals for the Federal Circuit has explained, "legal determinations of obviousness . . . should be based on evidence rather than on mere speculation or conjecture."

Apple, Inc. v. VOIP-Pal.com, Inc., IPR2019-01008, Paper 7 at 19 (PTAB Nov. 12, 2019) (quoting *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1290 (Fed. Cir. 2006)).

V. PETITIONER'S ALLEGATIONS FAIL FOR LACK OF SUPPORT

A. The Petition Does Not Properly Define Applicable Legal Standards for Anticipation and/or Obviousness

Petitioner alleges throughout the Petition that all the Challenged Claims are obvious over various references. Notably absent from the Petition, however, is any statement of the applicable legal standards under which these allegations should be judged. While Petitioner's expert, Dr. Harley R. Myler, recounts his general understanding of patent law in his declaration, he does not identify the specific governing law, rules, and precedent supporting his opinions. *See* Ex. 1003 (Myler Decl.) at 46-49, ¶¶ 77-82. Nor is he a lawyer or agent admitted to practice before the USPTO or the Board. *See id.* at 84-100, App. 1.

Petitioner's failure to identify any applicable legal standards renders the Petition insufficient under 37 C.F.R. § 42.22(a). Dr. Myler's declaration cannot remedy the defects in the Petition and cannot provide competent testimony as to the governing law, rules, and precedent. Moreover, the Petition itself does not even refer to, much less adopt, Dr. Myler's understanding of any legal principles, and it therefore is devoid of any analysis of the legal standards for anticipation or obviousness. Because of this omission, the Petition should be denied as to all Challenged Claims.

B. All Challenged Claims Are Valid Over the Combination of Petitioner's Cited References

Petitioner fails to establish that any Challenged Claim is invalid over the combination of Barnes and Shaw – Petitioner's sole Ground in the Petition. There are two separate and distinct reasons that Petitioner's sole invalidity ground fails.

First, Petitioner fails to demonstrate that the combination of Barnes and Shaw discloses at least, "determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level," as required by Challenged Claims 1 and 6. *See supra* Section II.B. Likewise, Petitioner fails to establish that this combination discloses "determining, based at least in part on said communicating, that the network connection is available

and characterized by at least a minimum determined communication bandwidth," as required by Challenged Claims 11 and 16. *See id.*

Second, Petitioner has not demonstrated that Barnes and Shaw can be combined under 35 U.S.C. § 103. Specifically, Petitioner fails to identify any advantage gained from combining Barnes and Shaw. Petitioner also fails to demonstrate that a POSITA would find any reason to combine those two references.

1. The combination of Barnes and Shaw does not disclose each element of the Challenged Claims

As explained in detail *infra*, neither Barnes nor Shaw, nor their combination, discloses each limitation of any Challenged Claim. As described below, Barnes discloses a portable device, such as a PDA, but that reference does not disclose the content quality determining features required by the Challenged Claims. Shaw discloses a content delivery network ("CDN") from a server perspective, but it has nothing to do with portable devices. Even taken together, these two references cannot satisfy all of the limitations of the Challenged Claims. Before discussing these failings directly, the following is an overview of the disclosure of each reference.

a) Barnes

Barnes discloses a network-connected mobile phone or PDA that has a wide range of features, the majority of which have nothing to do with the Challenged Claims. *See, e.g.*, Ex. 1004 (Barnes) at 11, ¶¶ 0035-39. In fact, Barnes is directed

primarily to the use of such a device for "providing location based services, mobile e-commerce, and other functions." *Id.* at 9, ¶ 0003. This focus is reflected by Barnes' title: "System, method, and computer program product for providing location based services and mobile e-commerce" *Id.* at 1. As such, it is unsurprising that Barnes provides virtually no disclosure related to the actual functionality of the Challenged Claims, which concerns improving the level of digital content quality under the constraints of a portable system. To the extent Barnes discloses media content functionality at all, that functionality is incidental to the purpose of Barnes' disclosure: network connectivity related to location-based services and electronic commerce.¹

Thus, improving the quality of service for digital media delivery to a user is of little concern for Barnes. As identified by Petitioner, Barnes discloses a rudimentary process involving several factors to determine when to switch to a different a communication network. *See id.* at 15, ¶ 0074; *accord* Pet. at 12-13.

¹ By way of example, while Barnes includes 537 numbered paragraphs of disclosure, fewer than fifteen of these paragraphs have anything to do with receiving media content, and only one paragraph discusses switching communication networks in the context of receiving such media content. *See id.* at 15, ¶ 0074; *see also id.* at 11-12, 13-15, 19, 45, ¶¶ 0039-40, 0045-46, 0063, 0066-69, 0072-75, 0117, 0378.

These factors include bandwidth as a general concept but do not include any consideration related to providing content to the user at a higher quality level. *See* Ex. 1004 (Barnes) at 15, ¶ 0074.

Barnes offers an alternative solution to the problem of limited storage on portable devices, which is moving data, such as media files, to remote storage. *See id.* at 21-23, ¶¶ 0137-49. Specifically, Barnes discloses a data management module that moves large files to remote storage (*e.g.*, this data management module may choose the user's home entertainment system to serve as remote storage for media content). *See id.* at 21-22, ¶¶ 0137-40. Barnes' portable device establishes a communication link to retrieve the remotely stored data if needed. *See id.* at 22, ¶ 0142. Any media content retrieved this way would be a copy of the media content originally stored on the device and would be, at best, the same level of quality (*i.e.*, the system disclosed in Barnes would not decide to use one copy of the media content over the other based on quality differences between the two copies).

Thus, as discussed in detail below, while Barnes does disclose both a portable device and the concept of switching networks, Barnes lacks any disclosure that might teach the methodology of the Challenged Claims.

b) Shaw

In contrast to the '992 Patent, which focuses on delivering higher quality content by a portable system, Shaw is directed to a technique for finding the best

server or source for consumption on a personal computer ("PC"), which does not share many of the constraints of a portable system. As Shaw explains, its objective is "to enable a client player to identify [the] best server dynamically." Ex. 1005 (Shaw) at 3:40-41. Shaw teaches that real-time Internet conditions affect the selection of a streaming server, and Shaw illustrates a representation of a server-based streaming environment in FIG. 2 as shown below:

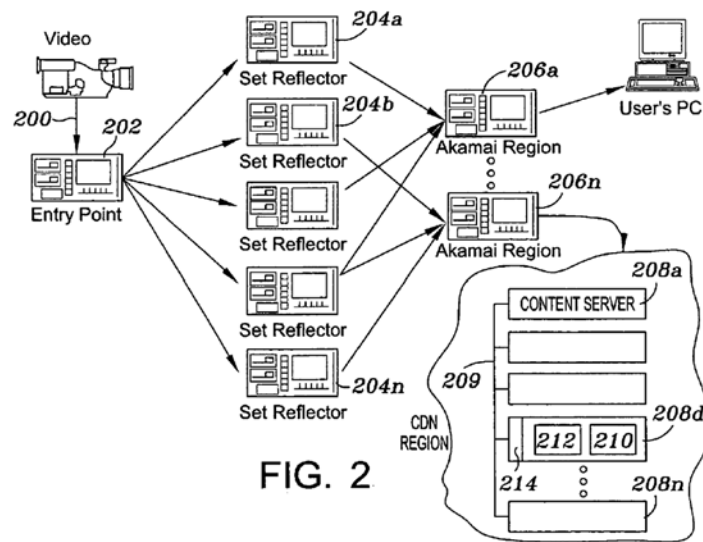


FIG. 2

Id., FIG. 2.

With many streaming servers available (often streaming the same content) on the Internet, Shaw's server-based approach aims to solve server availability and reliability problems. In the above streaming environment, a client player – *e.g.*, a media player running in the browser of the user's PC (*see id.* at 6:61-65) – "performs a query to a nameserver against a network map of Internet traffic conditions" and "may then optionally perform one or more tests to determine which of a set of servers

provides the best quality of service for the stream." *Id.* at 1, Abs. Shaw refers only to the "user's PC" and provides no disclosure about the resource constraints inherent to portable devices. *See, e.g., id.*, FIG. 1 (119), FIG. 2, 1:59-64 (referring to web browser software on a PC). Indeed, being focused primarily on the network and the servers, Shaw generally refers to the "user," rather than any specific hardware (such as a portable device) that delivers the content to the user. *See, e.g., id.* at 4:66-5:2, 5:38-47, 6:30-50, 9:7-35, 11:28-31. For example, Shaw fails to address a client player's capability to play content received from the selected servers. Hence, in Shaw, the only factor relevant to delivering high-quality content is the streaming servers – the nature of the client device (*i.e.*, a PC) is irrelevant.

More specifically, Shaw's focus on server selection neglects any consideration of bandwidth and other constraints of a portable system. For instance, Shaw teaches, "typically the fastest responding server to the OPTIONS test will be the best server to stream." *Id.* at 9:7-9. The term "fastest responding" describes latency, not bandwidth.² The word "bandwidth" appears in Shaw only four times: twice in the

² The term "bandwidth" refers to the rate of data (*e.g.*, bits/second) that can be delivered, while "latency" refers to the amount of time (delay) between a request for data and the return of that data. *See* Ex. 2001 (Newton's Telecom Dictionary) at 99 (defining "bandwidth"), 473 (defining "latency").

background section, and twice in the description in the context of conserving bandwidth against excessive server testing. *See id.* at 8:10-13, 10:21-24. Indeed, Petitioner admits that "Shaw does not sufficiently suggest determining the communication bandwidth of the network connection between the client media player and the servers." Pet. at 37.³ Shaw's omission of any discussion of "bandwidth" in the server selection context is not surprising. Bandwidth and other constraints of portable systems are simply not a concern in Shaw's server-based approach, which is focused on selecting a server that can best deliver data to a user generically, without any regard to the user's device. *See, e.g.*, Ex. 1005 (Shaw) at 9:7-9.

Shaw's server switching mechanism – to be distinguished from the initial server selection process – focuses entirely on maintaining the quality of service when server status can constantly change. "A 'best' content server for a particular client may not remain that way for a given time period." *Id.* at 6:51-52. FIG. 4 illustrates Shaw's process in which the degradation of an existing streaming source triggers the switch to a better streaming source:

³ As discussed in Section V.B.1.c), *infra*, Petitioner's reliance on Barnes to supplement Shaw's failure to disclose this feature is misplaced.

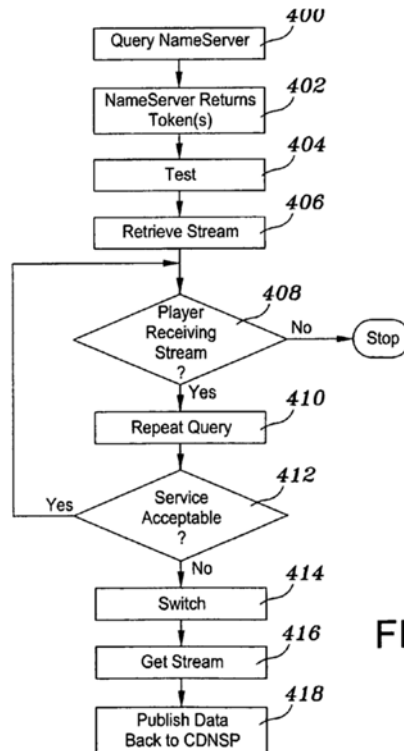


FIG. 4

Id., FIG. 4.

"At step 412, a test is performed to determine whether the client player is receiving acceptable service from the existing source." *Id.* at 10:26-29. "If the outcome of the test at step 412 indicates that the stream source is unacceptable, the routine continues at step 414 to initiate the switch to the 'better' stream source." *Id.* at 10:30-33. Shaw expressly teaches switching the streaming source only out of necessity – not to provide content at a higher level of quality – "[b]ecause it is likely there will be some cost to switching (e.g., perhaps a[n] . . . interruption in service), a client should only switch servers if it is not getting an acceptable stream from the first server." *Id.* at 9:21-24 (emphasis added). Nothing in Shaw indicates that a

switch might happen simply to provide content at a higher quality level than the current quality level provided to the user.

Finally, while Shaw does not provide significant detail on the nature of the receiving device, Shaw indicates that the receiving client is a browser-based player on a personal computer. As Shaw explains, "[s]treaming media clients are often called players, and typically they exist as plug-ins to Web browsers." *Id.* at 2:2-4. With respect to FIG. 3, Shaw further describes "a representative client browser 300 having a streaming media client player (e.g., Real Player, Apple QuickTime Player, Windows Media Player, or the like) 302 that is enhanced according to the present invention." *Id.* at 7:4-7. As such, Shaw does not address a situation where, as is often the case with a portable device, the content of a particular quality level might already be stored on the device. Instead, the focus of Shaw in this instance is maintaining – not increasing – the current quality of service. Specifically, Shaw teaches a technique that relies exclusively on streaming content from a server, which looks to a different server only when the current server can no longer maintain the current quality of service. *See, e.g., id.* at 9:18-36.

Thus, Shaw, which discloses network considerations from the perspective of a CDN provider, provides little disclosure relevant to the considerations of providing higher-quality content on a portable device. Hence, as discussed in detail below,

Shaw does not add materially to Barnes with regard to the limitations of the Challenged Claims.

c) Barnes and Shaw collectively fail to disclose each limitation of any Challenged Claim

The combination of Barnes and Shaw fails to disclose at least the limitations that Petitioner labels as limitations [1c], [6c], [11d], and [16d]:

- [1c] determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
- [6c] determine that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
- [11d] determining, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth; and
- [16d] determine, based at least in part on said communicating, that the network connection is available and characterized by at least a minimum determined communication bandwidth.

Pet. at 34, 49.

While Petitioner generally styles Barnes as the primary reference in its alleged combination that forms the basis for its only Ground, Petitioner employs Shaw as the primary reference teaching these particular limitations.⁴ *See id.* at 34, 37-39 (Claims 1 and 6), 49, 52-53 (Claims 11 and 16). As discussed below, irrespective of the arrangement of these references, their combination cannot satisfy these limitations of the independent Challenged Claims.

It is worth noting that Petitioner asserts "the 'Delivering Limitations' of claims 1, 6, 11, and 16 are substantively the same" *Id.* at 49.⁵ Patent Owner does not concede that these limitations are "substantively the same." However, for the purposes of this Preliminary Response, Petitioner's arguments, with respect to the "Delivering Limitations" of Claims 11 and 16, fail for substantially the same reasons as Petitioner's arguments with regard to the "Delivering Limitations" of Claims 1 and 6. Nonetheless, in the interest of clarity, Claims 1 and 6 will be discussed separately from Claims 11 and 16 below.

⁴ As discussed *infra* Section V.B.2, this substitution of primary references is problematic for other reasons with regard to establishing a *prima facie* argument that any claim is invalid under 35 U.S.C. § 103.

⁵ Petitioner refers to limitations [1c], [6c], [11d], and [16d] as the "Delivering Limitations." *See id.* at 34, 49.

(1) Claims 1 and 6

As noted above, Claim 1 requires, "determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level." Ex. 1001 ('992 Patent) at 26:33-37 (emphasis added). Claim 6 requires the same limitation. *See, e.g., id.* at 26:60-64. Petitioner fails to establish that the combination of Barnes and Shaw discloses or suggests this limitation.

As an initial matter, Petitioner's argument fails to address how the Barnes and Shaw references disclose the actual language of limitations [1c] and [6c], which requires *inter alia* a bandwidth that is high enough to provide content at a quality level higher than the current level. *See* Pet. at 34-39 (emphasis added). To support its position, Petitioner reads out the limitation of "high enough" from Claims 1 and 6 and replaces this limitation with alternative language relating to "better source[s]," "best source[s]," or "higher communication bandwidth." *Id.* If allowed by the Board, the alternative language Petitioner endeavors to use in place of the claims' "high enough" would read out the meaning of this limitation. *Id.* Indeed, nothing in the disclosures of Shaw or Barnes cited by the Petitioner relates to the limitation of "high enough" in Claims 1 and 6. Finally, Petitioner attempts to support its position on this issue with almost entirely conclusory testimony from Petitioner's expert,

rather than any disclosure in either reference. *See id.* at 34-39 (citing Ex. 1003 (Myler Decl.) as its primary support for these arguments).

These failings prevent Petitioner from establishing that either Claim 1 or Claim 6 is invalid in view of the Barnes and Shaw references.

(a) The language of Claims 1 and 6

Petitioner fails even to allege that the combination of Barnes and Shaw discloses a determination that a network connection has a bandwidth that is "high enough" to provide content at a quality level higher than the current level, as required by Claims 1 and 6. *See Pet.* at 34-39.⁶ This failure, standing alone, justifies dismissal of the Petition with regard to these claims.⁷ Petitioner's failure to address

⁶ In fact, other than quoting the language of Claims 1 and 6 in a header, the Petition never even mentions the phrase "high enough" in its entire section on these limitations. *Id.*

⁷ *See Inland Environmental & Remediation, Inc. v. Scott Environ. Serv., Inc.*, IPR2015-00381, Paper 11 (PTAB June 19, 2015). In that case, Petitioner vaguely alleged that secondary prior art reference describes "[s]tandard methods for determining rutting resistance." *Id.* at 14. The Board rejected the Petition because "Petitioner, however, does not cite to any specific portion of Huang, and thus it is

the actual language of Claims 1 and 6 is not surprising, given that neither Shaw nor Barnes suggests anything approaching the actual claim language: determining whether bandwidth of a second network is "high enough" to allow delivery of content to a user at a higher level of quality than the current level. *See id.*

To disguise this shortcoming, Petitioner, without explanation, replaces the claim language "high enough" with the terms "better source" (Pet. at 34, 36), "best source" (Pet. at 35), and "higher communication bandwidth." Pet. at 38. Regardless of whether either reference discloses a better (or best) source, or even a higher bandwidth, such disclosure is insufficient without explanation from Petitioner to explain why these terms are equivalent to the actual language of these Challenged Claims.

Further, this substitution of language disregards the import of Claims 1 and 6 as a whole. These Challenged Claims require a determination that network bandwidth is "high enough to provide the digital media content to the user at a quality level higher than the current quality level." Ex. 1001 ('992 Patent) at 26:35-37. Within the context of these Challenged Claims, "high enough" is not the same as "higher," "better source," or "best source," because this determination step in the

not evident which portion of that reference the Petitioner is relying on to support the obviousness of the challenged claims." *Id.* at 15.

Challenged Claims does not only address bandwidth, but also whether the user's device can utilize the higher quality. *Id.* As taught by the '992 Patent, and as encapsulated within the Challenged Claims, for the higher quality level to be provided to the user, the "high enough" bandwidth is useful only when other conditions impacting the quality level are also satisfied (*i.e.*, the user's device has the ability to utilize the higher quality). *See id.* at 22:16-23, 24:4-11.

As the '992 Patent explains, improving the quality level provided to the user on a portable device involves evaluating multiple factors in determining whether it is possible to deliver content at a higher quality level. *See id.* at 24:7-11. These factors can include processing capability, communication capability, and information access. *See id.*

Based on this disclosure, a number of scenarios can be envisioned in which a bandwidth "high enough" to deliver media content to a user is not merely the highest possible bandwidth, or even a higher bandwidth than the current bandwidth. Such examples include the following:

- A portable system without the appropriate hardware or software cannot take advantage of a higher bandwidth or a larger file afforded by this higher bandwidth. An unnecessarily high bandwidth might even strain the limited resources of a portable system.

- If the video currently playing on a portable system is already at the full resolution of the portable system, a higher resolution video file would not be able to provide the digital media content to the user at a quality level higher, as recited in Claims 1 and 6. In fact, the higher resolution video file could lower the quality level for the user by introducing other performance issues.
- If media content with more efficient encoding is available from another server, this other server might provide the digital media content with a higher quality level, but at a smaller size, which could require a lower bandwidth. In this instance, the "high enough" bandwidth may be lower than the current bandwidth.

These types of examples are numerous, but the point of each is the same. Merely finding a "better source" or a second server with a "higher bandwidth" has no necessary correlation to a determination, as required by Claims 1 and 6, that the bandwidth from the second server is "high enough" to deliver content to the user at a higher quality level than the current level. *See id.* at 26:33-37. In light of these discrepancies, Petitioner's complete failure to explain how the terms "higher," "better source," or "best source," may be considered equivalent to "high enough," as used by Claims 1 and 6, warrants denial of institution.

(b) The disclosures of Shaw and Barnes

The portions of Shaw and Barnes relied on by Petitioner to attempt to invalidate Claims 1 and 6 further demonstrate the shortcomings of Petitioner's position.

The first portion of Shaw that Petitioner relies on states, "determine whether there is a better source for the stream." Pet. at 34 (quoting Ex. 1005 (Shaw) at 3:62-66). However, nothing in this quoted passage has anything to do with bandwidth, let alone whether such bandwidth is "high enough" to allow the player to provide content to the user at a higher quality level than the current level. This disclosure fails to address the language of limitations [1c] and [6c] and cannot support a finding that Shaw teaches those limitations.

The other passage of Shaw that Petitioner cites not only fails to consider bandwidth, but teaches away from the idea that Shaw views media content quality as important in any respect. Specifically, that passage teaches that "'acceptable' does not necessarily mean acceptable quality. It can also mean acceptable from a stream management point of view." Pet. at 35 (quoting Ex. 1005 (Shaw) at 9:14-29). It is unclear why Petitioner believes this passage supports its argument. The quoted disclosure not only fails to address bandwidth, but it also teaches away from the primacy of the quality level of the content presented to the user, in favor of server-

focused considerations. Petitioner provides no explanation of the relevance of this disclosure to the actual language of limitations [1c] and [6c]. *See* Pet. at 35-36.

Implicitly acknowledging Shaw's failure to disclose these limitations, Petitioner returns to its primary reference, Barnes, to allegedly cure this failure. With regard to Barnes, Petitioner relies on three specific teachings: (1) initially selecting a network connection based on available bandwidth, (2) switching networks when performance on the selected network degrades, and (3) requesting bandwidth data. *See id.* at 37-39. None of these disclosures, however, teaches the functionality required by limitations [1c] and [6c].

First, Petitioner's reliance on Barnes' initial selection of a network is misplaced. *See id.* at 37-38. Initial selection of a network connection has nothing to do with a later determination of whether to switch to a different connection. *A fortiori*, the initial selection of a network connection reasonably cannot be read as teaching why such an undisclosed determination might take into account whether the different connection might have "high enough" bandwidth to deliver content to the user at a higher quality level (*i.e.*, the initial selection of a network cannot satisfy a limitation that requires a determination with respect to a second connection). As such, this disclosure in Barnes is entirely unhelpful with regard to the claim limitations at issue here.

Second, the bare teaching that Barnes' device might switch networks when performance on the selected network connection degrades, or when another network connection might have more bandwidth, suffers the same deficiencies as Shaw's disclosure. *See id.* at 38. Merely determining that a current bandwidth is not good enough, or that another connection might have more bandwidth, falls far short of any sort of determination that the bandwidth on the new network connection might allow the delivery of media content at a higher quality level than the current level, especially without any other teaching relating quality level to bandwidth.

Finally, Barnes' teaching of a client "requesting bandwidth data," on its own, is irrelevant to limitations [1c] and [6c]. *See id.* at 38-39. Petitioner, however, attempts to argue that this teaching implicitly requires determining a bandwidth of each connection. *See id.* Even assuming this logical leap might be justified, which it is not, merely determining a bandwidth of a connection has little to do with determining whether the bandwidth is "high enough" to provide content to a user at a quality level higher than the current level, for all of the reasons discussed above.

Thus, even assuming that either Barnes or Shaw did disclose switching to "higher bandwidth" or a "better" or "best" source for content, that disclosure still would not be sufficient to meet the requirements of Claim 1 or Claim 6, and for at least this reason, the Board should deny institution on those claims, as well as Claims 2-5 and 7-10, which depend therefrom.

(c) Petitioner's Expert Testimony

In light of the clear failure of Barnes and Shaw to disclose limitations [1c] and [6c], Petitioner attempts to buttress that insufficient disclosure with testimony of its expert. This testimony, however, is conclusory and essentially parrots the arguments in the Petition itself. As demonstrated below, such conclusory testimony cannot support a finding that any Challenged Claim is invalid.

For example, the paragraphs cited on pages 34-37 of the Petition concerning Shaw rely on paragraphs 66-72 of Petitioner's expert declaration set forth in Ex. 1003 (Myler Decl.) of the Petition. A side-by-side review of those respective portions of the Petition and the Myler Decl., however, reveals no substantive differences between the two. Indeed, the only apparent differences between the two are the addition of terms such as, "It is my opinion" and "my analysis" in the Myler Decl., and the addition in the Petition of citations to the Myler Decl. Compare, *e.g.*, the portions of the Petition citing paragraphs 66-68 of the Myler Decl. with those paragraphs themselves:

Determining Limitations

- [1c] determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
- [6c] determine that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

The combination of Barnes and Shaw renders the “Determining Limitations” obvious based on Shaw’s teachings. Ex. 1003 ¶66.

As explained for the “Delivering” limitations, Shaw’s client media player selects a server source for a stream to be played or streamed to the user. Shaw also teaches the “Determining” limitations because Shaw teaches periodically determining whether there is a better source for the stream (i.e., the second system):

Periodically, the client player code repeats the DNS SRV query during playback to determine whether there is a better source for the stream. If so, the player is controlled to switch to the better stream source “on the fly” if appropriate to maintain and/or enhance the quality of service.

Ex. 1005, 3:62-66, Abs. 10:16-26. In other words, Shaw teaches that the client player periodically performs the same process of identifying a set of servers from which a stream can be obtained, and performing a test to determine if one of the servers is available to provide the stream at a better quality level (i.e., the second system). Ex. 1003 ¶67.

When repeating the same process for identifying the (then best) source for the stream, Shaw explains that the client player may also consider additional factors, such as the cost of switching mid-stream, and whether the current source is providing an acceptable stream:

Another function provided by the present invention is the ability of the client player ... to identify a “better” source for a stream being received and to switch to that source “on the fly,” i.e., while the stream is being received and rendered on the client. ... Because it is likely there will be some cost to switching (e.g., perhaps a short interruption in service), a client should only switch servers if it is not getting an acceptable stream from the first server. The decision process 308 makes a decision regarding whether the stream being received is “acceptable,” e.g., a stream that is not currently being thinned by the server, or some other metric. As used herein, “acceptable” does not necessarily mean acceptable quality. It can also mean acceptable from a stream management point of view.

Ex. 1005, 9:14-29; Ex. 1003 ¶68.

Determining Limitations

- [1c] determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;
- [6c] determine that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level;

66. It is my opinion that the combination of Barnes and Shaw renders the “Determining Limitations” obvious based on Shaw’s teachings.

67. My analysis for the “Delivering” limitations above explains how Shaw’s client media player selects a server source for a stream to be played or streamed to the user. Shaw also teaches the “Determining” limitations because Shaw teaches periodically determining whether there is a better source for the stream (i.e., the second system):

Periodically, the client player code repeats the DNS SRV query during playback to determine whether there is a better source for the stream. If so, the player is controlled to switch to the better stream source “on the fly” if appropriate to maintain and/or enhance the quality of service.

Ex. 1005, 3:62-66, Abs. 10:16-26. In other words, Shaw teaches that the client player periodically performs the same process of identifying a set of servers from which a stream can be obtained, and performing a test to determine if one of the servers is available to provide the stream at a better quality level (i.e., the second system).

68. When repeating the same process for identifying the (then best) source for the stream, Shaw explains that the client player may also consider additional factors, such as the cost of switching mid-stream, and whether the current source is providing an acceptable stream:

Another function provided by the present invention is the ability of the client player ... to identify a “better” source for a stream being received and to switch to that source “on the fly,” i.e., while the stream is being received and rendered on the client. The decision process 308 is used to determine whether the player should switch servers mid-stream. Because it is likely there will be some cost to switching (e.g., perhaps a short interruption in service), a client should only switch servers if it is not getting an acceptable stream from the first server. The decision process 308 makes a decision regarding whether the stream being received is “acceptable,” e.g., a stream that is not currently being thinned by the server, or some other metric. As used herein, “acceptable” does not necessarily mean acceptable quality. It can also mean acceptable from a stream management point of view.

Pet. at 34-35; Ex. 1003 (Mylar Decl.) at 39-40, ¶¶ 66-68.

These examples are not isolated. Paragraphs 69-72 and 76-77 of the Myler Decl. are also virtually identical to the portions of the Petition that cite those paragraphs. *Compare* Pet. at 35-37, 38-39, *with* Ex. 1003 (Myler Decl.) at 41-42, 46, ¶¶ 69-72, 76-77. Paragraphs 73-75 of the Myler Decl. vary from the Petition only in that they actually quote portions of Barnes; the analysis of those quotations is identical to that of the Petition. *Compare* Pet. at 37-38, *with* Ex. 1003 (Myler Decl.) at 43-45, ¶¶ 73-75.⁸

Put another way, Petitioner attempts to "support" its conclusory arguments about the import of the disclosures of Shaw and Barnes exclusively with citations to its expert's conclusory declaration. However, a review of the analysis in the cited paragraphs of the Myler Decl. reveals that testimony to be equally as conclusory as – and, indeed substantively identical to – Petitioner's arguments in the Petition. Petitioner's expert provides no additional analysis of the references that might enlighten Petitioner's arguments. As such, the expert's testimony is ineffective and should be disregarded. *See Apple, Inc. v. VOIP-Pal.com, Inc.*, IPR2019-01008, Paper 7 at 19 (PTAB Nov. 12, 2019) (quoted *supra* Section IV.C); *Kinetic Techs.*,

⁸ Based on these similarities, it is reasonable to suspect that the absence of the Barnes quotations in the Petition relates more to wordcount limitations than any desire to distinguish between the Petition and the Myler Decl.

Inc. v. Skyworks Sol'ns, Inc., IPR2014-00529, Paper 8 at 15 (PTAB Sept. 23, 2014) (also quoted *supra* Section IV.C).

For at least these reasons, the Board should decline to institute review on independent Challenged Claims 1 and 6, as well as dependent Challenged Claims 2-5 and 7-10, which depend therefrom.

(2) Claims 11 and 16

Similar to the determination requirement in Claims 1 and 6, Claims 11 and 16 require determining "that the network connection is available and characterized by at least a minimum determined communication bandwidth." Ex. 1001 ('992 Patent) at 27:29-31, 28:18-20. With respect to these limitations, Petitioner asserts that "the 'Delivering Limitations' of claims 1, 6, 11, and 16 are substantively the same" Pet. at 49. While Patent Owner does not concede that these limitations are "substantively the same," Patent Owner does agree that Petitioner's arguments with respect to the "Delivering Limitations" of Claims 11 and 16 fail for substantially the same reasons as Petitioner's arguments with regard to the "Delivering Limitations" of Claims 1 and 6. Thus, for reasons similar to those discussed above with regard to Claims 1 and 6, neither Barnes nor Shaw, nor the combination of those references, discloses each limitation of either Claim 11 or Claim 16.

For at least these reasons, the Board should decline to institute review on independent Challenged Claims 11 and 16, as well as dependent Challenged Claims 12-15 and 17-20, which depend therefrom.

2. Barnes and Shaw cannot be combined to establish that any Challenged Claim is invalid

As shown above, neither Barnes nor Shaw discloses the limitations of [1c] and [6c] of Challenged Claims 1 and 6, as well as similar limitations in Challenged Claims 11 and 16. However, even if either of these references did disclose these limitations, which they do not, Petitioner fails to set forth any legally sufficient argument that these two references could somehow be combined. Therefore, the Board should reject the Petition for this separate and independent reason.

a) Petitioner does not identify any benefit Shaw adds to Barnes

The Board should reject the Petition for failing to identify what Shaw adds to the combination of Shaw and Barnes. The Petitioner indicates that Barnes is the primary reference in the combination. *See id.* at 21. With regard to limitations [1c], [6c], [11d], and [16d], however, Petitioner effectively employs Shaw as the primary reference, arguing that Shaw discloses those limitations. *See id.* at 34 ("The combination of Barnes and Shaw renders the 'Determining Limitations' obvious based on Shaw's teachings.").

More specifically, Petitioner argues, "Shaw teaches that the client player periodically performs the same process of identifying a set of servers from which a stream can be obtained, and performing a test to determine if one of the servers is available to provide the stream at a better quality level (i.e., the second system)." *Id.* at 34-35. Petitioner clearly believes that this "test" includes a bandwidth test, since this is the only way that Shaw's teaching could be relevant to the limitations at issue.

Curiously, however, Petitioner later admits that, if "Shaw does not sufficiently suggest determining the communication bandwidth of the network connection . . . using a bandwidth test would have been an obvious improvement based upon Barnes' teachings." *Id.* at 37. Given that the only reason that Petitioner cites Shaw, is for the functionality of limitation [1c], which states "determining that a network connection with a second system is available and is characterized by a communication bandwidth that is high enough to provide the digital media content to the user at a quality level higher than the current quality level," the admission that Shaw actually might not teach determining a bandwidth is surprising. Ex. 1001 ('992 Patent) at 26:33-37 (emphasis added).

More specifically, this reversal confuses the issue of what Petitioner believes Shaw actually adds to the combination. If Shaw doesn't disclose a bandwidth determination, what is the role of that reference in the combination? Conversely, if Petitioner were truly confident that Barnes taught this feature, why try to combine

that reference with Shaw at all? While raising multiple questions about its proposed combination, Petitioner answers none of them.

Like the Petitioner in *LG Electronics*,⁹ Petitioner fails to explain how Shaw both does and does not satisfy these limitations of the Challenged Claims. Nor does Petitioner explain the circumstances under which Shaw might satisfy these limitations and the circumstances under which Shaw would not satisfy these limitations. If Petitioner intended to argue Shaw alone, and Shaw in combination, as separate grounds, the Petition lacks any explanation of this intent. Instead, the Petition presents a garbled argument in which the Board is left to determine for itself whether Barnes is required to disclose these limitations or not. For this reason alone, Petitioner's proposed combination of Shaw and Barnes fails to establish that any Challenged Claim is invalid under 35 U.S.C. § 103.

b) The Petition fails to demonstrate that a POSITA would have any reason to combine Barnes and Shaw

Moreover, Petitioner fails to demonstrate that a POSITA would have been motivated to combine the teachings of Barnes and Shaw to satisfy the limitations of the Challenged Claims. As discussed below, Petitioner's stated rationale for the combination is circular and confused, forcing the Board to "play archaeologist with

⁹ *LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper 7 (PTAB Apr. 29, 2016) (discussed *supra* Section IV.C).

the record." *DeSilva v. DiLeonardi*, 181 F.3d 865, 866-67 (7th Cir. 1999). This failure to clearly explain the purported motivation to combine the references itself warrants denial of institution.¹⁰

Petitioner first argues that, "[t]he challenged claims are rendered obvious by the combination of Barnes' portable device with a media player and Shaw's teachings for identifying an optimum server source of streaming content." Pet. at 21. Petitioner continues, "[t]he media player of the combination is improved according to Shaw's teachings of a client-side method for identifying an optimum server for obtaining streaming content." *Id.*

As noted *supra* Section V.B.2.a), the nature of this combination is circular, because Petitioner suggests modifying Barnes with Shaw's teachings and then argues

¹⁰ *2Wire, Inc. v. TQ Delta, LLC*, IPR2015-00241, Paper 18 (PTAB May 29, 2015).

In *2Wire*, Petitioner argued that "it would have been obvious to compute the random phases disclosed in Suzuki '614 in the manner disclosed in Suzuki '415 in order to produce the random phase shifts used in Suzuki '614," but the Board rejected this argument as circular because "as it merely states the *result* of the asserted combination, i.e., the basic components of Suzuki '614 performing the random number calculations described in Suzuki '415." *Id.* at 11.

for modifying Shaw with Barnes' teachings. As discussed above, this alone renders the proposed combination unable to establish that any Challenged Claim is invalid.

Moreover, Petitioner's proposed rationale for the combination is self-contradictory. Employing Barnes as the primary reference, Petitioner suggests that "[t]he media player of the combination is improved according to Shaw's teachings of a client-side method for identifying an optimum server for obtaining streaming content" (Pet. at 21), but subsequently contradicts itself in arguing that "[a] POSITA would have found it obvious to use Barnes' bandwidth test (selecting a better network based on higher bandwidth)." *Id.* at 23. If, as Petitioner argues, Barnes cures the deficiency of Shaw (the reference that Petitioner alleges cures the very same deficiency of Barnes), it is incumbent on Petitioner to provide an explanation for this inconsistency, otherwise Petitioner has failed to meet its burden. *See Procter & Gamble Co. v. Teva Pharm. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009). More specifically, to carry its burden of proving that the references can be combined, Petitioner has to establish that a POSITA would have reason to combine the references as proposed. *Id.* (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)) ("A party seeking to invalidate a patent based on obviousness must demonstrate 'by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of

success in doing so.""). Without such an explanation, this contradiction – that Shaw teaches a feature that can cure Barnes' missing disclosure, but then Barnes also must cure a deficiency in this very teaching – would prevent a POSITA from believing that the references could be combined or that there would be a reasonable expectation of success in doing so. But Petitioner provides no such explanation. As a result, Petitioner has not established that a POSITA would be motivated to combine the references at all, let alone in the manner contemplated by Petitioner.

For this additional reason, Petitioner has failed to establish that Barnes and Shaw can be combined to invalidate any Challenged Claim, and the Board should deny institution for this separate and distinct reason.

3. Claims 14 and 19

The Board should not institute *inter partes* review against Claims 14 and 19, as Petitioner does not offer any evidence to support its assertions that Claims 14 and 19 are obvious. *See* Pet. at 9 (listing Claims 14 and 19 in Ground 1). Specifically, other than listing Claims 14 and 19 within the group of Challenged Claims, Petitioner never even mentions Claims 14 and 19 elsewhere in the Petition, let alone discussing the limitations of those claims or arguing why the cited references might disclose those limitations. This omission falls far short of the Board's prescription that "the initial petition identify with particularity the evidence that supports the grounds for the challenge to each claim" *Everstar Merch. Co., Ltd. v. Willis*

Elec. Co., Ltd., PGR2019-00056, 2021 WL 653034, at *12 (PTAB Feb. 18, 2021) (emphasis added). Accordingly, Patent Owner submits that Petitioner has not actually challenged Claims 14 and 19 and, should the Board decide to institute review, those claims should be excluded from such review.

VI. CONCLUSION

Avago respectfully submits that this Petition should be dismissed and/or denied for at least the foregoing reasons. Further, as this is Avago's Preliminary Response, it is not intended to be a comprehensive rebuttal to all contentions and arguments raised by the Petition. As such, if a trial is nonetheless instituted, Avago reserves the right to contest the Petition on all grounds permitted under the applicable rules, including, without limitation, raising claim construction issues, challenging Petitioner's proffered expert testimony and submitting rebuttal expert testimony, challenging Petitioner's assertions that the claims of the '992 Patent are anticipated and/or obvious in light of its cited references, and any other permitted bases to rebut Petitioner's proffered evidence and arguments. Moreover, nothing herein is or should be construed as a concession or admission by Avago as to any fact or argument proffered in the Petition.

VII. CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant to 37 C.F.R. § 42.24(d), Patent Owner certifies that based on the "word count" feature of Microsoft Word, this Preliminary Response includes 9,664 words.

Respectfully submitted,

Dated: March 23, 2021

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** was filed through the Patent Trial and Appeal Board End to End (PTAB E2E) electronic filing system on March 23, 2021 with a confirmation copy served via electronic mail, on the following counsel of record for Petitioner:

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