Paper No. 52 Entered: May 13, 2015

#### UNITED STATES PATENT AND TRADEMARK OFFICE

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## BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD, SAMSUNG ELECTRONICS AMERICA, INC.,<sup>1</sup> HTC CORP., and HTC AMERICA, INC.,

Petitioner,

V.

AFFINITY LABS OF TEXAS, LLC, Patent Owner.

Case IPR2014-00209 Patent No. 7,953,390 B2

Before KEVIN F. TURNER, LYNNE E. PETTIGREW, and JON B. TORNQUIST, *Administrative Patent Judges*.

TORNQUIST, Administrative Patent Judge.

FINAL WRITTEN DECISION 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

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<sup>&</sup>lt;sup>1</sup> Petitioner represents that Samsung Telecommunications America, LLC, an originally-named Petitioner in this case, was merged into Samsung Electronics America, Inc. on January 1, 2015. Paper 45, 1.

### I. BACKGROUND

Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America, LLC, LG Electronics, Inc., LG Electronics U.S.A., Inc., LG Electronics Mobilecomm USA, Inc., HTC Corp., and HTC America, Inc.<sup>2</sup> (collectively, "Petitioner") filed Petitions in IPR2014-00209 (Paper 11, "Pet.") and IPR2014-00212 (-00212 Paper 10, "-00212 Pet.")<sup>3</sup> requesting *inter partes* review of claims 16, 19, and 20 of U.S. Patent 7,953,390 B2 ("the '390 patent"). The owner of the '390 patent, Affinity Labs of Texas, LLC ("Patent Owner"), filed Preliminary Responses to the Petitions. Paper 19; -00212 Paper 16.

Pursuant to 35 U.S.C. § 314, the Board instituted trial as to claims 16, 19, and 20 of the '390 patent in both proceedings. Paper 20 ("Inst. Dec."); -00212 Paper 17 ("-00212 Inst. Dec."). Subsequently, we joined and consolidated IPR2014–00209 and IPR2014–00212 and terminated the proceedings in IPR2014–00212. Paper 36, 3.

During trial, Patent Owner filed Patent Owner Responses (Paper 34, "PO Resp."; -00212 Paper 32, "-00212 PO Resp."), and Petitioner filed a consolidated Reply (Paper 39, "Reply"). Petitioner also filed a Motion to Exclude (Paper 42) portions of the Declaration of Dr. Lin Zhong (Ex. 2102), as well as certain exhibits relied upon by Dr. Zhong. Patent Owner filed an

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<sup>&</sup>lt;sup>2</sup> On July 9, 2014, we granted a request for adverse judgment submitted by LG Electronics, Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm USA, Inc. Paper 30. Accordingly, the LG petitioners are no longer participating in these proceedings.

<sup>&</sup>lt;sup>3</sup> Documents filed in IPR2014-00209 are identified by paper number. Unless otherwise noted, documents filed in IPR2014-00212 are identified by the additional prefix "-00212."

Opposition to the Motion to Exclude (Paper 47), and Petitioner filed a Reply (Paper 48). An oral hearing was held on March 10, 2015 (Paper 51, "Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 16, 19, and 20 of the '390 patent are unpatentable.

# A. Related Proceeding

The parties represent that the '390 patent is being asserted in *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd*, No. 1:14-cv-2717, 14-cv-2966 (N.D. Cal.) (transferred from *Affinity Labs of Texas, LLC v. Samsung Electronics Co., Ltd.*, 12-cv-557 (E.D. Tex.)). Paper 18, 1; Paper 45, 1.

## B. The '390 Patent

The '390 patent is directed to a delivery system for digitally stored content. Ex. 1001, 1:17–19. In particular, the '390 patent relates to the wireless delivery of media content, such as songs, video, on-line radio stations, on-line broadcasts, and text. *Id.* at 2:55–59, 3:10–15, 3:37–39, 14:41–44.

Many different wireless devices may be used to select and receive media content in the system and method of the '390 patent, including "a network radio, a modular device, an audio system, a personal digital assistant (PDA), a cellular phone, or other electronic devices operable to receive information wirelessly." *Id.* at 4:29–32. In at least one embodiment, the wireless device contains a physical interface that allows a different electronic device to communicate with, and to recharge the battery of, the

wireless device using a single cable having multiple conductive elements. *See id.* at 17:18–62, 20:9–20.

In one embodiment of the '390 patent, a user selects desired audio information from a webpage. *Id.* at 14:34–44. This audio information may include "a single song, a plurality [of] different songs," or "an entire album." *Id.* at 14:42–44. After the user finishes selecting the desired songs, the system creates both a playlist and a listing of "network or URL locations" where the songs on the playlist may be found. *Id.* at 14:44–53. The songs on the playlist then are retrieved from one or more of the listed network locations and streamed to the user. *Id.* at 5:58–6:10, 14:50–61, 15:46–51.

In one embodiment, the selected songs may be streamed to a user over a high-speed wireless communications network. *Id.* at 5:64–6:7. In this embodiment, selected content is delivered initially to the wireless device at a high transmission rate until a sufficient buffer has been established in the memory of the wireless device, and then the rest of the selected content is transmitted at a second, slower rate. *Id.* 

#### C. Illustrative Claim

Of the challenged claims, only claim 16 is independent. Claim 16 is illustrative and reproduced below:

- 16. A system for content delivery, comprising:
- a portable device having a display, a local rechargeable battery, a wireless communication system, and a processor;
- a physical interface of the portable device, the physical interface configured to connect to an interface system that includes a cable having multiple conductive elements, wherein the physical interface is designed such that a different electronic device can be communicatively coupled with the physical interface of the portable device using the

interface system in a manner that allows the different electronic device to recharge the local rechargeable battery using at least one of the multiple conductive elements and to communicate with the portable device using at least one other of the multiple conductive elements; and

a computer-readable medium having stored instructions that when executed are operable to cause the processor: (1) to present an icon on the display, the icon associated with content that is deliverable as streaming media; (2) to recognize a selection of the icon; and (3) to switch between a set of communication rates at which the portable device receives a first portion and a second portion of the content, wherein the set of communication rates comprise at least a first data rate and a second data rate that is slower than the first data rate.

Ex. 1001, 20:5-30.

# D. Prior Art References Supporting Unpatentability

Reference	Publication	Date	Exhibit
Galensky	US 6,845,398 B1	Jan. 18, 2005	Ex. 1003
Bork	US 6,633,932 B1	Oct. 14, 2003	Ex. 1004
Hitson	US 2002/0010759 A1	Jan. 24, 2002	Ex. 1103
Fuller	US 6,711,622 B1	Mar. 23, 2004	Ex. 1106

# E. The Alleged Grounds of Unpatentability

We instituted this proceeding on the grounds of unpatentability set forth in the table below. Inst. Dec. 14; -00212 Inst. Dec. 16.

References	Basis	Claims
Galensky and Bork	§ 103	16, 19, and 20
Hitson, Bork, and Fuller	§ 103	16, 19, and 20

### II. ANALYSIS

## A. Claim Interpretation

In both Decisions to Institute, we construed the term "a listing of network locations at which to access the streaming media" to mean "a listing of network locations at which content that is to be delivered as streaming media may be accessed." Inst. Dec. 8; -00212 Inst. Dec. 8. At this stage of the proceeding, neither party disputes this construction or suggests that any other claim term requires construction. Tr. 67:3–11. As such, we adopt our previous construction of "a listing of network locations at which to access the streaming media," and will give the remaining claim terms their broadest reasonable construction in light of the specification. *See* 37 C.F.R. § 42.100(b).

# B. Obviousness of Claims 16, 19, and 20 over Galensky and Bork

Petitioner contends that claims 16, 19, and 20 are unpatentable under 35 U.S.C. § 103 over the combination of Galensky and Bork. Pet. 18–34. In support of its argument, Petitioner provides a claim chart, demonstrating where Galensky and Bork disclose each limitation of the challenged claims, and the declaration testimony of Schuyler Quackenbush, Ph.D. *Id.* at 24–34; Ex. 1015 (initial declaration); Ex. 1020 (rebuttal declaration). Patent Owner responds, relying on the declaration testimony of Dr. Zhong. PO Resp. 4–24 (citing Ex. 2029).<sup>4</sup>

Response to Exhibit 2002 to be citations to Exhibit 2029.

<sup>&</sup>lt;sup>4</sup> On October 9, 2014, we granted Patent Owner's request to expunge Dr. Zhong's originally-filed Declaration (Exhibit 2002), and replace it with Ex. 2029. Paper 37, 2. Thus, we interpret all citations in the Patent Owner

## 1. Galensky

Galensky is directed to a "system, method and portable, wireless device for receiving, playing and storing streamed multimedia files over a wireless telecommunications network." Ex. 1003, 3:13–17. The portable device of Galensky includes a display, a rechargeable battery, a wireless transmitter, and a microprocessor. *Id.* at 4:1–33. The wireless device also contains various input controls for operating the device and for selecting multimedia files to be streamed from the multimedia server. *Id.* at 4:42–48.

In the Galensky system, the media server "either stores multimedia files or a list of particular multimedia files and their respective address/location." *Id.* at 5:7–9. When a wireless device connects to the media server, the system transmits a list of these available files and songs to the user. *Id.* at 5:18–24. The user then may view this list on the visual display of the wireless device and, using the input controls, select desired songs or videos for streaming. *Id.* at 5:18–42. Galensky discloses initially streaming the desired content to a user at a high transmission rate. *Id.* at 5:66–6:27. Then, once a sufficient buffer has been established in the memory of the wireless device, the wireless device signals that a second, lower rate may be used. *Id.* 

#### 2. Bork

Bork is directed to a Universal Serial Bus ("USB") interface and cable. Ex. 1004, Abstract. The disclosed USB cable has multiple conductive elements, allowing an electronic device to simultaneously communicate with, and recharge the battery of, a portable device. *Id.* at 5:12–14, 5:41–43, 6:66–7:12, 8:18–28. According to Bork, this single cable system has numerous advantages. *Id.* at 2:54–63. First, a bulky electrical

power transformer is not required for the portable device, saving both space and the cost of the transformer. *Id.* at 2:54–63, 5:5–15, Figs. 21, 22. Second, a single cable can be used to synchronize data and download software updates while the battery of the portable device is being recharged. *Id.* at 4:17–24, 4:47–55, Fig. 22. Finally, a laptop computer running solely on battery power can recharge the battery of a portable device, which Bork discloses is useful when another source of power is unavailable. *Id.* at 8:18–28.

# 3. Analysis

Petitioner provides detailed analysis showing where each limitation of claims 16, 19, and 20 is disclosed in Galensky and Bork. Pet. 18–34. With respect to the rationale for modifying Galensky to include Bork's multifunctional cable and physical interface, Petitioner contends that one of ordinary skill in the art<sup>5</sup> would have sought to incorporate these features in Galensky's portable device in light of the numerous advantages expressly set forth in Bork. *Id.* at 18–24. Petitioner further contends that the obviousness of the challenged claims is confirmed by the fact that "each element (*e.g.*, Bork's USB for recharging the battery and Galensky's portable device with data connectivity and switching communication rates) merely performs the same function as it does separately, yielding only predictable results." *Id.* at

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<sup>&</sup>lt;sup>5</sup> The parties appear to agree that one of ordinary skill in the art would hold a bachelor's degree in Electrical Engineering or Computer Science, or an equivalent field, and have approximately one or two years of experience working with client/server architectures, Internet transmission protocols, Internet browser programming, and streaming media transmission. *See* Pet. 18; Ex. 2029 ¶ 12. Although the phrasing used by the parties to describe one of ordinary skill in the art varies slightly, neither party asserts that these differences would affect the outcome of this case.

24; see also KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 417 (2007) (noting that "when a patent 'simply arranges old elements with each performing the same function it had been known to perform' and yields no more than one would expect from such an arrangement, the combination is obvious") (quoting Sakraida v. Ag Pro, Inc., 425 U.S. 273, 282 (1976)).

Patent Owner asserts that the challenged claims would not have been obvious over Galensky and Bork because: (a) Galensky teaches away from using a physical interface to transfer data; (b) the power supplied by the USB interface of Bork is insufficient to recharge the battery of the claimed portable media device; (c) market and design pressures would have directed one of ordinary skill in the art away from using "a large USB interface" in a portable media device; and (d) even as late as 2003, designers and engineers did not contemplate using the same physical interface for both charging and data communication. PO Resp. 8–24. We address each of these arguments in turn.

# a. Teaching Away

Patent Owner argues that Galensky teaches away from incorporating Bork's physical interface, because adding such an interface "would completely frustrate" Galensky's purpose of providing "a portable device capable of playing multimedia files . . . without first having to download the preselected files from the user's computer for ultimate transfer and storage in the portable device prior to playing." PO Resp. 9–10 (citing Ex. 1003, 1:60–2:1); Ex. 2029 ¶¶ 44–47.

As noted by Dr. Quackenbush, however, Galensky does not teach or suggest that the presence of a physical interface would hinder the disclosed method of wirelessly providing multimedia files to a portable device.

Ex. 1020 ¶¶ 12–13. Nor does Galensky suggest that the portable device should never be connected to another device via a physical interface, or that the portable device should be synchronized or recharged wirelessly—advantageous uses of a wired connection disclosed in Bork. *See id.* ¶¶ 12–14; Ex. 1004, 4:17–24, 4:47–5:15, 8:18–28, Fig. 22. As such, when the disclosures of Galensky and Bork are considered as a whole, we are not persuaded that Galensky teaches away from incorporating a physical interface in the disclosed portable device. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (noting that for a reference to teach away it must "criticize, discredit, or otherwise discourage" the claimed solution).

# b. Power Sufficient to Recharge the Battery

Patent Owner also argues that a person of ordinary skill in the art would not have found it obvious to combine Galensky and Bork because USB Specification Revision 1.1 ("USB 1.1")—incorporated by reference in Bork—indicates that the USB interface was capable of providing a peak charging current of 500 mA, which Patent Owner contends was insufficient to recharge the high capacity battery required in the claimed devices of the '390 patent. PO Resp. 14–15, 18 (asserting that it "was not physically possible" for the USB interface of Bork "to recharge the battery of the portable device"), Table 1. According to Patent Owner, the USB 1.1-compliant interface was designed only to power peripherals, such as a USB keyboard or mouse, which "generally consume power lower by orders of magnitude than that which would be required to recharge the battery of a portable media player." *Id.* at 15.

Testifying in support of Patent Owner, Dr. Zhong asserts that the process of recharging a "common lithium-ion battery" occurs in two steps.

Ex. 2029 ¶ 63. In the first step, "the battery is charged with a fixed high current," usually close to the current the battery can provide for one hour, or  $1C.^6$  *Id*. In the second step, the battery is charged with a variable, low current and "monitored so that the battery's voltage remains about constant." *Id*.

Dr. Zhong testifies that in 2000, "power-hungry" wireless media players, similar to the device claimed in the '390 patent, had battery capacities of 1400 mAh or higher, requiring an initial charging current close to 1400 mA, or almost three times the 500 mA maximum charging current that USB 1.1 could provide. *Id.* ¶¶ 64–65. Dr. Zhong further testifies that "the output current and voltage for charging must be monitored, regulated, and varied in a battery-specific manner during the charging procedure," and the USB 1.1 standards do not provide this capability. *Id.* ¶¶ 66–67. Dr. Zhong contends that, had one ignored these issues and recharged the portable devices of the '390 patent using a USB 1.1-compliant interface and cable, one "would risk reducing the battery's capacity and cycle time (the amount of times it can be charged and discharged) and overheating or resetting the computer hosting the USB." *Id.* ¶ 67.

Battery *capacity*, designated as "C," is typically expressed in Amp hours or mA hours ("mAh"). Charging *current* is typically expressed in units of C-Rate, and thus relates the charging current to the battery capacity. For example, if a 1000 mAh battery is recharged at a rate of 1C, the charging current is 1000 mA. If the same 1000mAh battery is recharged at a rate of 0.1C, the charging current is 100 mA.

Ex.  $1020 \, \P \, 31$  (internal citations omitted).

<sup>&</sup>lt;sup>6</sup> Dr. Quackenbush explains:

Petitioner presents evidence, however, that one of ordinary skill in the art would have understood that, in addition to the charging method discussed by Dr. Zhong, a slow charging method—using a charging current between 0.05 and 0.1 C—would be not only acceptable, but recommended. For example, a National Institute of Science and Technology publication states:

Slow charge rates (between 0.05 C and 0.1 C) are the most—often recommended charge rate, since a battery can be recharged in less than a day, without significant probability of damaging or degrading the battery.

Ex. 1027, 36 (§ 6.3); Ex. 1020 ¶ 30. Likewise, the book *Practical Design Techniques for Power and Thermal Management* indicates that a charging current of 0.1C is acceptable when using the slow charge method. Ex. 1028, § 5.6 (Fig. 5.7); *see also* Ex. 1020 ¶¶ 29, 32 (Dr. Quackenbush testifying that one of ordinary skill in the art would have understood that batteries could be recharged successfully at rates as low as 0.1C).

When applied to the 1400 mAh battery example discussed by Dr. Zhong, this slow charge method would require only a 140 mA charging current (0.1C), a current level well below the 500 mA charging current available in USB 1.1-compliant interfaces. Ex. 1020 ¶¶ 38, 41. Moreover, both references cited by Petitioner indicate that, in contrast to the fast charging methods discussed by Dr. Zhong, slow charging methods do not require sophisticated charge monitoring or regulating capabilities. *See* Ex. 1027, 36 (§ 6.3) ("Slow charge rates can be applied to a battery for an indefinite period of time, meaning that the battery can be connected to the

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<sup>&</sup>lt;sup>7</sup> Although this slow charging method would take up to 16 hours to recharge the battery of the portable device, the challenged claims do not specify a particular recharging rate for the physical interface and cable. *See* Ex. 1028, Fig. 5.7; Ex. 1001, 20:5–30.

charger for days or weeks with no need for special shut-off or current-limiting equipment on the charger."); Ex. 1028, § 5.5 ("Slow charging (charge time greater than 12 hours) requires much less sophistication and can be accomplished using a simple current source."); *see also* Ex. 1004, 7:13–47 (disclosing that the USB cable has a voltage regulator).

Based on the foregoing, and upon review of the record as a whole, we are not persuaded by Patent Owner's argument that Bork's USB 1.1-compliant interface and cable would have been incapable of recharging the claimed portable devices of the '390 patent.

## c. Market and Design Pressures

Patent Owner asserts that in order to accommodate the "Standard B receptacle" provided in USB 1.1, the opening on a device must be at least 7.78 mm high and 8.45 mm wide, and "would probably need to be at least 15 mm or more thick" to be "mechanically sound." PO Resp. 21 (citing Ex. 2002 ¶¶ 71–72; Ex. 1011, 105). According to Patent Owner, in 2000 one of ordinary skill in the art would have avoided adding such "a large component" to a portable device because market and design pressures "demanded that portable devices be as small as possible." *Id.* at 20–21. In support of this argument, Patent Owner notes that the thickness of the first generation iPad was 13.9 mm, the Motorola RAZR v3 13.7 mm, the Palm Tungsten E 12mm, the first generation iPad Touch 8mm, and the most recent iPad Air 7.5mm. *Id.* at 21–22.

We are not persuaded by this argument. First, there is no limitation on the size of the portable device in the challenged claims, nor a suggestion in the '390 patent Specification that a relatively large physical interface would render the device unacceptable for its intended purpose. Second,

Petitioner presents evidence that several portable devices available as of the effective filing date of the '390 patent were "more than thick enough to fit USB's 'standard B receptacle.'" Reply 11 (citing Ex. 1020 ¶¶ 48–51); Ex. 1031, 4, 8, 35 (Nomad II with standard USB connector). Thus, we are not persuaded that market pressures would have prevented or dissuaded one of ordinary skill in the art from combining Galensky and Bork. *See KSR*, 550 U.S. at 417 (noting that the predictable use of prior art elements according to their established functions is obvious).

# d. Use of USB in Commercial Products

Patent Owner contends that "[t]he developmental history of portable devices demonstrates that in 2000, it would not have been obvious for one of skill to use a USB 1.1 port and cable for both transferring data and recharging batteries." PO Resp. 24. In support, Patent Owner asserts that "leaders in the portable device industry," such as Nokia, Palm, and Motorola, did not implement USB to recharge batteries of portable devices until "years after the priority date of the '390 patent." *Id*.

We are not persuaded by this argument. Bork expressly discloses using a USB 1.1 port and cable to both recharge and communicate with a portable device, such as a cell phone. *See*, *e.g.*, Ex. 1004, 4:10–25, 6:27–42. Subsequent commercial decisions by market participants as to whether to actually use this interface do not limit or constrain this express disclosure. Moreover, any alleged lack of commercial implementation is of limited probative value here because Patent Owner has not demonstrated that the lack of commercial implementation was due to an inability to use the physical interface to both recharge a battery and transfer data, as opposed to other design considerations or consumer preferences. *See*, *e.g.*, PO Resp. 23

(asserting that, prior to March 28, 2000, "consumers were accustomed to AC adapters").

## 4. Conclusion

Upon review of Petitioner's and Patent Owner's arguments and evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 16, 19, and 20 of the '390 patent are unpatentable under 35 U.S.C. § 103 as obvious over Galensky and Bork.

C. Obviousness of Claims 16, 19, and 20 over Hitson, Bork, and Fuller

We also instituted trial to determine whether claims 16, 19, and 20 of the '390 patent are unpatentable under 35 U.S.C. § 103 as obvious over Hitson, Bork, and Fuller. Inst. Dec. 16.8

#### 1. Hitson

Hitson relates to a system and method for delivering multimedia content to a computer, portable media player, or other electronic device. Ex. 1103, Abstract. In Hitson, the portable media player may connect to another device or a server through either a wireless or wired connection, including a USB cable connection. *Id.* ¶¶ 5, 39, 50. At least one of the portable media players disclosed in Hitson—the Cassiopeia E–105—has a display, a rechargeable battery, a processor, and memory. *Id.* ¶ 5; Ex. 1118 ¶¶ 37–38 (citing Ex. 1111, 1–3). This device came equipped with the Windows CE operating system, a Web Browser, and "connectivity to the desktop through ActiveSync technology." Ex. 1111, 2.

In the Hitson system, multimedia content is stored in one or more media databases, which are accessible through one or more web servers.

<sup>&</sup>lt;sup>8</sup> Citations in Section C are to filings in IPR2014-00212.

Ex. 1103 ¶ 131. Using a web browser, a user may view a list of this available content, select desired songs or video, and request that the selected songs and video be streamed to the portable media player. *Id.* ¶¶ 76, 112–113, 131, 133. The transmission rate for the streaming content is determined "through software, hardware, or by asking a user." *Id.* ¶ 70. For example, the user may inform the system that a "narrowband" or "broadband" connection is available. *Id.* at Fig. 3.

## 2. Fuller

Fuller is directed to a system and method for providing streaming audio and video to users. Ex. 1106, Abstract. In Fuller, a web browser is used to review and select available content on a network. *See id.* at 4:46–49, 8:30–36, Figs. 1–3. This available content may include links for, among other things, an audio jukebox or a live radio broadcast. *Id.* at Fig. 3. After a user selects desired content, the selected items then are streamed to the user. *Id.* at 2:57–59, 8:30–36.

In Fuller, the server transmits one or more Java applets to the client device. *Id.* at 8:37–41. These Java applets serve both to decode the streaming audio data and to monitor the rate at which the client receives and processes information from the server. *Id.* at 8:37–41, 10:11–17. If a Java applet determines that the client is not receiving the audio or video data at a sufficient rate, the applet can instruct the server to reduce the rate of transmission to "more appropriately match the bandwidth availability of the client." *Id.* at 10:11–17.

## 3. Analysis

Petitioner contends that the combination of Hitson, Bork, and Fuller discloses each limitation of claims 16, 19, and 20. In particular, Petitioner

asserts that Hitson discloses using a portable device to control the acquisition of streaming media, as well as a device having a display, rechargeable battery, wireless communications module, and processor. Pet. 25–38. Petitioner further asserts that Bork discloses the claimed physical interface and Fuller discloses a method of switching between a first, higher transmission rate and a second, slower rate. *Id.* at 21–23.

With respect to the rationale for combining these references, Petitioner argues that one of ordinary skill in the art would have sought to modify Hitson to implement Fuller's method of monitoring and adjusting the transmission rate, in order to ensure that the input buffer does not run out of data, resulting in the audio decoder outputting silence. *Id.* at 24. In support of this argument, Petitioner relies upon the declaration testimony of Dr. Quackenbush. *Id.* (citing Ex. 1118 ¶¶ 61–62). Dr. Quackenbush, however, provides no evidence or citation to establish that Hitson actually utilizes an input buffer, nor does Dr. Quackenbush explain why a person of ordinary skill in the art would have understood that Hitson necessarily contains such a buffer. Ex. 1118 ¶¶ 61–62; 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."). The Petition also fails to point to any such input buffer in Hitson. Pet. 18–25. Absent evidence of an input buffer in Hitson, it is not evident from the Petition why one of ordinary skill in the art would have sought to modify Hitson to incorporate Fuller's method of transmission rate switching. Accordingly, we are not persuaded that claims 16, 19, and 20 would have been obvious under 35 U.S.C. § 103 over Hitson, Bork, and Fuller.

### D. Petitioner's Motion to Exclude

Petitioner moves to exclude the testimony of Dr. Zhong. Paper 42. Specifically, Petitioner asserts that Dr. Zhong's testimony lacks sufficient basis under Rule 702 of the Federal Rules of Evidence. *Id.* at 7, 10.

In its motion, Petitioner concedes that "the Board, sitting as a non-jury tribunal with administrative expertise, is well-positioned to determine and assign the appropriate weight to be accorded to the evidence presented by both Petitioner and Patent Owner in this patent invalidity trial without the need for formal exclusion" (*id.* at 4), but submits that, should the Board decide "to adhere strictly to the Rules of Evidence," Dr. Zhong's testimony should be excluded. *Id.* at 2.

We agree that the Board, sitting as a non-jury tribunal, is well-positioned to assign appropriate weight to the evidence without the need for formal exclusion. Moreover, we need not reach the merits of Petitioner's Motion to Exclude because we either have not considered the evidence in question (ground based on Fuller) or have decided the issue in Petitioner's favor. Accordingly, Petitioner's Motion to Exclude is *dismissed as moot*.

# E. Patent Owner's Constitutionality Challenge

Patent Owner contends that the present *inter partes* review proceeding deprives it of its Seventh Amendment right to a jury trial. PO Resp. 24; -00212 PO Resp. 27. Patent Owner indicates, however, that it is not asking the Board to rule on the constitutionality of these proceedings at this time, but raises the issue in order to preserve the argument on appeal. PO Resp. 25; -00212 PO Resp. 27. Thus, we do not address this argument.

# IV. ORDER

It is

ORDERED that claims 16, 19, and 20 of the '390 patent are *unpatentable*;

FURTHER ORDERED that Petitioner's Motion to Exclude Evidence is *dismissed as moot*;

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

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