

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

YEALINK (USA) NETWORK TECHNOLOGY CO. LTD., and YEALINK
NETWORK TECHNOLOGY CO., LTD.

Petitioners

v.

BARCO N.V.,
Patent Owner.

Case IPR2025-00491
Patent No. 10,684,972

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 37 C.F.R. § 42.107**

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I. INTRODUCTION

U.S. Patent 10,684,972 (“the ‘972 patent”) describes an invention which “allow users, e.g., participants in a meeting room, to make use of at least one functional device, some functional devices or all functional equipment attached to the base unit whereby the at least one functional device has an electronic output such as a digital electronic output and can co-operate with other devices plugged into, coupled, connected or attached in some way to the base unit...” See Ex. 1001 at 9:10-17.

Yealink (USA) Network Technology Co., Ltd. and Yealink Network Technology Co., Ltd. (“Petitioners”) petitioned for *Inter Partes* Review (“IPR”) of the ‘972 patent challenging Claims 1-18 (“the challenged claims”). Pursuant to 37 C.F.R. §42.107(a), Barco N.V. (“Patent Owner”) submits this Preliminary Response.

Petitioners have submitted proposed grounds for challenge based on obviousness. However, for each proposed ground, at least one claim element in the independent claims is missing from the combination of references. In addition, one of ordinary skill in the art would have no motivation to modify the references as proposed by Petitioners. Thus, Petitioners failed to meet their initial burden to

show that each element of the claims was known, and that the claims are obvious.

Accordingly, the Board should conclude that the information presented in the Petition and accompanying evidence do not establish a reasonable likelihood that Petitioners will prevail with regard to any claim. Thus, the Board should deny institution of all grounds asserted in the Petition.

II. THE ‘972 PATENT

The ‘972 patent relates to a system to enhance the quality, in general, of meetings, e.g., unified communications, with several participants having their own devices and using their own conferencing platforms, such as Teams or Zoom, e.g., “by providing high quality audio as well as visual signals to be made available to participants at a meeting.” See Ex. 1001 at 1:39-42. In a world where hybrid meetings, i.e. with some participants in the same room and others participating online, have become the standard, increasing the quality of such meetings is of crucial importance.

In order for the meeting participants using their own devices to be able to use the high-quality cameras, speakerphones, microphones, etc. available in a meeting room during the unified communications (“UC”) meeting hosted from their own device, a connection is needed between the camera, speakerphone,

microphone, etc. of the meeting room and the processing device of the meeting participant. Additionally, when a meeting participant hosts a UC meeting on their own device, a connection needs to be made with the high-quality conferencing equipment in a flexible and convenient manner to burden the user as little as possible.

The peripheral device, as described in the '972 patent, provides this flexibility as it allows for any meeting participant in the meeting room to easily plug in the peripheral device to their own device, e.g., processing device, such as a laptop, computer, PDA, smartphone, etc. ("plug-and-play"). See *Id.* at 14:22-35. When doing so, a high-quality audio-video connection with the conferencing equipment, e.g., functional device, connected to or in the base unit is setup with minimal burden to the user. Moreover, the peripheral device can expose the functional device functionality in a way that abstracts from the specific features of a particular meeting setup by exposing endpoints of the functional device on the peripheral device to the user processing device.

Specifically, the '972 patent describes peripheral devices which "allow users, e.g., participants in a meeting room, to make use of at least one functional device, some functional devices or all functional equipment attached to the base unit whereby the at least one functional device has an electronic output such as a

digital electronic output and can co-operate with other devices plugged into, coupled, connected or attached in some way to the base unit...” *Id.* at 9:10-17. For example, the ‘972 patent discusses that:

“The configurable USB endpoints are configured either when pairing a first peripheral device 130 device with a base unit 100 or over the wireless connection 127 between the processing device 130 and the base unit 100. Once configured, the USB endpoints will expose second peripherals devices 91-93 which can be interpreted as custom drivers, vendor specific drivers or default OS drivers. These can be used by either a host application or third party applications. These endpoints can be an exact copy of the ones of the second peripheral device 91-93 connected to the Base Unit 100 or can be dedicated specified endpoints.”

See *Id.* at 16:57-67.

As such, the ‘972 patent discusses that “When having a VOIP call such as a Skype™ call in a meeting, the first peripheral device is connected to, e.g. plugged into a user processing device and all the functional devices connected to the base unit can be used, e.g. a better camera that gives a wide a room view, a better microphone and better speakers). This is especially beneficial when there are

multiple people in the room that want to attend the conference call such as a VOIP or Skype™ call.” *Id.* at 11:64-12:5.

That is, the ‘972 patent describes an invention that allows participants in a meeting (whatever their device and whatever their conferencing platform might be) to use the functionalities of the functional devices (e.g. audio and video equipment) that are present in the meeting room, e.g., connected to or in a base unit, on their own device in an easy and user friendly manner. These combinations of features provide high-quality audio and video signals with low latency, while at the same time providing a consistent and simple user experience.

For example, during prosecution, claims 1-20 of U.S. Application No. 15/858668, from which the ‘972 patent issued, were rejected in a Non-Final Office Action dated March 28, 2019 as being anticipated by Brands et al. (U.S. publication 2015/0121466) and Leete, III (U.S. publication 2014/0362161). See Ex. 1004 at 174-183. In response, the claims were amended to include “where the at least one fixed or a configurable endpoint is a data source or a data sink which is able to store data” and that “of the functional device exposed or made available.” It was then argued that “the skilled person would have understood that the exposed endpoints for functional devices allow these devices to be controlled by the peripheral device and to appear as if they were local to the processing device, e.g.,

the laptop. That is, such a hardware solution allows the base unit to expose and make available any functional device such as a second peripheral device that is connected to the base unit, to one or more first peripheral devices (e.g., receiver devices) such as to expose and make available simultaneously with a plurality of first peripheral devices (page 16, lines 3-7), e.g., the exposure of the endpoint is a specific hardware solution.” See *Id.* at 316.

Subsequently, a Final Office Action was issued on October 11, 2019 where claims 1-3, 7-12, 16-19, and 21 were rejected as being anticipated by Christison et al. (U.S. Patent 7,761,627), while claims 4, 5, 6, 13, 14, and 15 were found to have allowable subject matter. See *Id.* at 329-337. In response, independent Claims 1 and 10 were amended to include the allowable subject matter of claims 5 and 14 to recite “wherein the processing device is adapted to host a unified communication between two or more processing devices” and “further comprising hosting a unified communication between two or more processing devices on the processing device.” See *Id.* at 354-367.

Based on such amendments to the claims, a Notice of Allowance was issued on January 29, 2020, and the application subsequently issued as U.S. patent 10,684,972 on June 16, 2020. See *Id.* at 368-372, 401.

III. CLAIM CONSTRUCTION

In an *inter partes* review proceeding, a claim of a patent shall be construed using the same claim construction standard that would be used to construe the claim in a civil action. *See* 37 C.F.R. § 42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). Under *Phillips*, claims must be construed so as to sustain their validity, if possible. The specification is the “best source for understanding a technical term,” to be supplemented, “as needed, by the prosecution history.” *Id.* at 1315.

Patent Owner reserves the right to assert alternative claim constructions to those proposed by Petitioners, and to provide constructions for those terms that Petitioners have not construed, should any trial be instituted. For only the purposes of this Preliminary Response, Patent Owner relies on the following constructions:

1. Endpoint (Claims 1, 3, 9, 11, 15, 16, 18)

The ‘972 describes “endpoints” as:

“...data sources or sinks and are defined for USB Devices which can be physical devices or virtual devices. In the present invention endpoints should be interpreted broadly as data sources or sinks. Hence data can be stored at an endpoint or emitted. An endpoint can act as a kind of buffer

can be defined for physical devices or virtual devices. The data stored at an endpoint may either be received from or waiting for being sent to the host such as a USB Host..”

Ex. 1001 at 7:64 – 8:5. The ‘972 patent further discusses that “Control Transfers can be bi-directional transfers reserved for the host to send and request configuration information to and from a device using a specific IN and OUT Endpoint.” *Id.* at 8:26-28.

2. Fixed or Configurable Endpoints (Claims 1, 3, 9, 11, 15, 16, 18)

The ‘972 patent describes the term “fixed or a configurable endpoint” as being defined by a number of descriptive fields of the endpoint. See *Id.* at 8:5-6. The ‘972 patent further defines the term “fixed endpoint” as “fixed USB endpoints on the first peripheral device 130 are provided for the basic functionality.” See *Id.* at 16:49-51. Additionally, the ‘972 patent defines “configurable endpoints” as “The configurable USB endpoints are configured either when pairing a first peripheral device 130 device with a base unit 100 or over the wireless connection 127 between the processing device 130 and the base unit 100. Once configured, the USB endpoints will expose second peripherals devices 91-93 which can be interpreted as custom drivers, vendor specific drivers or default OS drivers. These can be used by either a host application or third party applications. These endpoints can be an exact

copy of the ones of the second peripheral device 91-93 connected to the Base Unit 100 or can be dedicated specified endpoints.” See *Id.* at 16:57-67.

As such, the skilled person would have understood that fixing or configuring one or more endpoints refers to the process of setting up the characteristics and operational parameters of each endpoint within a device, e.g., using descriptor fields, e.g., specific data elements, such that the processing device can correctly interpret and utilize the data of this endpoint.

3. Expose (Claims 1, 3, 6, 9, 11, 15, 16)

The ‘972 describes the term “expose” as “‘A specific device exposes a peripheral device or other device’ means that the specific device configures one or more endpoints with specific descriptor fields.” See *Id.* at 8:59-61. The ‘972 further describes this feature as follows:

“This allows the base unit to expose and make available any functional device such as a second peripheral device that is connected to the base unit, to one or more first peripheral devices (e.g. receiver devices) such as to expose and make available simultaneously with a plurality of first peripheral device (e.g. receiver devices) in one of following ways: 1. By exposing the or each functional device (such as the or each second peripheral device) connected to the base unit in a one-on-one manner or

in a one to more of the first peripheral devices or user processing devices manner, e.g. to one or more first peripheral devices or user processing devices, preferably without interpretation or processing the electronic signals from each functional device e.g. the second peripheral device e.g. by tunneling the packets from the base unit to the endpoints of the one to more of the first peripheral devices or user processing devices. 2. By interpreting, processing and translating the electronic signal coming from the at least one functional device, e.g. the second peripheral device and, for example mimicking the at least one functional device, e.g. the second peripheral device at the first peripherals' end (e.g. receiver devices' end), either in software or hardware or both. With mimicking is meant that the same device is exposed in the endpoints as the second peripheral device connected with the base unit although the communication is not simply being tunneled as in the first and second methods described above. 3. By combining one or more functional devices, e.g. second peripheral devices or part of a second peripheral device and exposing it to the one or more first peripheral devices, e.g. receiver devices through a custom device in hardware, software or both. 4. By combining one or more functional devices e.g. second peripheral device(s) or part of a second

peripheral device and exposing its functionality to the end user through proprietary software. 5. By combining any of the above methods to provide the function of the functional device e.g. the second peripheral device to the one or more first peripheral devices such as receiver devices.”

See *Id.* at 10:17-58. That is, exposing endpoints means that the endpoints are configured and made available so that external entities (such as a host computer or network services) can interact with them, e.g., by configuring with descriptor fields.

IV. OVERVIEW OF CITED ART

A. Overview of Beel

Initially, Petitioners erroneously allege that “Beel was not considered on the record during prosecution of the ‘972 patent, except for admissions that related publication ‘shows an arrangement of components that can be used in embodiments of the present invention.’” See Petition at 20. Rather, as acknowledged by Petitioners on page 69 of the Petition, “Beel was cited during prosecution,” in which Beel is the national stage entry of PCT/EP2012/068167, which was published as WO2013/037980, and cited and considered by the Examiner. See Ex. 1004 at 186 (showing “ALL REFERENCES CONSIDERED

EXCEPT WHERE LINED THROUGH”). Moreover, Beel was extensively discussed in the ‘972 patent. For example, as pointed out by Petitioners, the ‘972 patent indicates that “FIG. 4 shows an arrangement of components that can be used in embodiments of the present invention. This figure is FIG. 11 of WO 2013/037980 entitled “Electronic tools and methods with audio for meetings” which is incorporated herein by reference with respect to FIG. 11 thereof and also in its entirety.” Ex. 1001 at 4:28-33. Thus, not only was Beel explicitly acknowledged and considered by the Examiner, but Beel was also considered as an arrangement of components that can be used with the invention disclosed in the ‘972 patent.

Beel at least describes at [0041] “a method and a system for connecting a processing device, e.g. a digital processing device such as a laptop, smartphone, PDA, computer, tablet and suchlike to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a generic communications protocol for communication between processing device and a standard class of peripheral devices.” Ex. 1005 at 10. For example, Beel discusses at [0043] that “In an embodiment audio data is captured through a virtual sound card interface added as a logical device over the physical interface provided in the peripheral device. On the processing device

only a generic sound driver such as a USB sound driver is required which is generally standard on any modern processing devices such as a PC (UAC1 or UAC2).” *Id.*

Beel further discusses at [0313] that “On the peripheral device in embodiment of the present invention one can implement a virtual audio device. This peripheral device can present itself as an audio out device to the processing device such as a laptop, PDA, laptop, smartphone, tablet, PC, etc it is connected to. As soon as the peripheral device is plugged in, the user of the processing device will see an additional audio out interface displayed on the processing device display to which it can stream the audio.” *Id.* at 23. Beel also states at [0323] that “With reference to the audio data on the processing device 31 such as a client PC, the audio is sent over a port using generic drivers such as over a USB port 8 using the standard built-in generic audio driver such as UAC driver 7. On the peripheral device 32, the audio packets are read from the generic port, e.g. USB port 11 by a dedicated audio device 14.” *Id.* at 24. That is, Beel is generally directed to providing a solution for presenting audio and video data from a processing device to a room display, e.g., via a base unit.

B. Overview of Dinka

Dinka is directed to “a media appliance comprising: video apparatus for outputting signals to a screen; a network interface for accessing a packet-based network; a memory storing a communication client application; and processing apparatus coupled to the memory, network interface and video apparatus, and arranged to execute the communication client application; wherein the client application is configured so as when executed to allow a local user of the media appliance to participate in bidirectional communication sessions with other remote users via the network interface and packet-based network; and the client application is further configured so as when executed: to receive an invitation signal from a remote user terminal over the packet-based network, the received invitation signal comprising a trigger condition specifying a future event for triggering participation of the media appliance in a proposed one of said communication sessions with said remote user terminal; to monitor the received trigger condition at said media appliance; and to join the proposed session in dependence on an occurrence of said event.” Ex. 1006 at 2:44-63. As such, Dinka describes “a mechanism for planning calls or other such communication sessions around the times of viewing activities such as television programmes, DVD or video games.” *Id.* at 2:64-67. That is, Dinka relates to a television apparatus having an embedded processing apparatus for conducting voice or video calls via

a packet-based network that does not interfere with the user's viewing activity.

C. Overview of Christison

Christison is directed to “improving throughput for devices in USB systems containing both wired and wireless USB devices.” Ex. 1011 at 2:18-20. Christison describes “a Wireless USB (WUSB) hub that allows wireless communication between wired USB devices and a host system. The WUSB hub acts as a proxy for the wired USB devices and presents them to the host system as if they were native WUSB devices.” *Id.* at 2:58-62. Christison further states that “Data is communicated from the host 400 to the HWA 410 through a wired connection. The HWA 410 then uses a wireless protocol to transmit the data to one of the DWAs 420, 430 which in turn sends the data to the specified USB device 421, 422, 431, or 432 over a wired connection.” *Id.* at 4:12-16. Further, Christison describes that “An attached wired USB device either 1) is presented as a unique WUSB device with its own device address, or 2) is presented as a separate function on an already existing device.” *Id.* at 6:32-37. That is, Christison does not look at the type of data being transferred, but rather only generally describes presenting wired USB devices as if they are ‘native’ WUSB devices.

D. Overview of Kaplan

Kaplan describes that the communications system 100 includes a receiver 110 and a transmitter 120, in which the transmitter 120 is a dongle including a connector 122 compliant with the Universal Serial Bus (USB) standard and operable to be inserted into a USB port of a computer, and that the transmitter 120 includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110, for example, the data may include video and audio data for display on the display device. See Ex. 1008 at [0016]-[0017]. Kaplan further states that “In some embodiments, when the transmitter 120 is connected to computer 220 for the first time, the transmitter may identify itself to the computer 220 as a mass storage device, such as a removable disk drive. In one embodiment, for instance, after the transmitter 120 is coupled to the computer 220, the transmitter 120 may identify itself as a removable disk drive to an operating system executing on the computer 220. The operating system can then treat the internal non-volatile memory 420 of the transmitter 120 like any other removable disk.” *Id.* at [0046]. As stated at [0022] of Kaplan, however, “the transmitter 120 may includes software that is configured to access video footage stored on a computer or on a web server accessible through the internet.” *Id.* at [0022]. That is, Kaplan only generally describes a dongle having a connector compliant with

the USB standard in which files are stored on the dongle, e.g., as media files in static storage.

E. Overview of Van De Laar

Van De Laar is directed to providing “a system for wireless docking that enables multiple dockees to wirelessly dock to a host device in an easy to use manner, enabling shared usage of A/V peripherals without causing interference.” Ex. 1007 at [0009]. Van De Laar describes that “The docking process is arranged for docking as a primary dockee device or a secondary dockee device, as described above. In particular, when docked as the primary dockee device, the dockee processor executes control over the at least one peripheral for determining the AV data to be rendered. When docked as the secondary dockee device, the dockee processor receives the AV data to be rendered via the at least one peripheral. So the AV data which is rendered via the peripheral coupled to the host is also transferred to the secondary dockee so as to enable rendering on the dockee device, and so monitoring the AV data that is rendered via the host peripheral.” *Id.* at [0078]. Van De Laar also discusses that “The benefit of doing this is that it allows primary dockees to be able to present content using the peripherals connected to a WDH, such as a large screen and a USB presentation remote control, and that other people in the meeting/lecture room can connect to the

presenter and to each other for all kinds of collobaration and interaction purposes.” *Id.* at [0094]. That is, Van De Laar is directed to a docking/hub system with peripherals for rendering AV content, in which the primary dockee has control over a peripheral and secondary dockee gets a different restricted access to the peripheral.

V. ARGUMENT

Petitioners must establish a reasonable likelihood of prevailing with respect to at least one of the claims challenged in the petition to support institution of an IPR. *See* 35 U.S.C. § 314(a); see also 37 C.F.R. § 42.108(c). Petitioners have not shown a reasonable likelihood of prevailing since the Petitioners failed to show that any of the cited art, alone or in combination, discloses or suggests the same combination of features of the independent claims. Specifically, Petitioners have not established that the combination of the teachings of the cited references discloses or suggests: 1) at least one fixed or a configurable endpoint...of the functional device exposed or made available on the first peripheral device, as required by independent Claim 1; 2) providing at least one fixed or a configurable endpoint...of the functional device exposed or made available on the first peripheral device, as required by independent Claim 9; and 3) at least one fixed or a configurable endpoint...of a functional device

exposed or made available on the first peripheral device, as required by independent Claim 15.

A. Applicable Law

1. Obviousness

Obviousness is a question of law based on the underlying factual determinations, including: (A) determining the scope and content of the prior art, (B) ascertaining the differences between the claimed subject matter and the prior art, and (C) resolving the level of ordinary skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). A claim is unpatentable if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103).

“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have

prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *Id.* at 418.

B. Ground I is deficient with regard to Claims 1-18 because the alleged combination fails to disclose or suggest the at least one fixed or configurable endpoint of a functional device exposed or made available on the first peripheral device, as required by Claims 1, 9, and 15

Petitioners allege in Ground I of the Petition that a combination of the teachings of Beel, Dinka, AAPA, and optionally Christison discloses “at least one fixed or a configurable endpoint, where the at least one fixed or a configurable endpoint is a data source or a data sink which is able to store or emit data, of the functional device exposed or made available on the first peripheral device,” as recited in Claim 1 and similarly recited in Claims 9 and 15. See Petition at 31-35, 44-45. Petitioners, however, have failed to demonstrate how the teachings of Beel modified with the teachings of Dinka, AAPA, and optionally Christison, taken alone or in combination, disclose or suggest: 1) at least one fixed or a configurable endpoint...of the functional device exposed or made available on the first peripheral device; as required by independent Claim 1; 2) providing at least one fixed or a configurable endpoint...of the functional device exposed or made available on the first peripheral device, as required by independent Claim 9; and 3) at least one fixed or a configurable endpoint...of a functional device exposed

or made available on the first peripheral device, as required by independent Claim 15.

That is, one having ordinary skill in the art would have appreciated that the features recited in the claims are at least directed to the first peripheral device having at least one fixed or configurable endpoint of the functional device exposed or made available on the first peripheral device. As such, such features relate to the need for connecting in a seamless manner between the functional device (that is connected to in a base unit and the processing device) which enhances the quality, in general, of meetings with several participants having their own devices and using their own conferencing platforms e.g., unified communications, such as Teams or Zoom, e.g., “by providing high quality audio as well as visual signals to be made available to participants at a meeting.” See Ex. 1001 at 1:39-42. Functional devices, such as cameras, have their primary data flow from functional device to the processing device. However, by having the endpoint of the functional device exposed or made available on the first peripheral device, a) specific software is not needed on the functional device; b) data, such as audio/video data, can be communicated to the unified communication tool, e.g., in a generic manner; and c) having the endpoint on the first peripheral device allows for data to be processed based on the data modality,

facilitating transmission of high quality audio/video data for real-time conferencing applications, e.g., over a low bandwidth wireless connection at low latency. See Ex. 1001 at 10:59-67 (“When a functional device, e.g. a second peripheral device is exposed natively or as a mimic of such a device in hardware, use can be made of endpoints such as USB endpoints on the first peripheral device or the user processing device which can expose the corresponding second peripheral devices such as USB devices connected to or plugged into the base unit (as is done in a hub), so no proprietary software or drivers need to be installed to support this.”).

As such, the fixed and configurable endpoints, which are exposed or made available on the first peripheral device, are configured in a very particular sense. For example, in an embodiment, as discussed in the ‘972 patent, “‘A specific device exposes a peripheral device or other device’ means that the specific device configures one or more endpoints with specific descriptor fields.” Ex. 1001 at 8:59-61. In other words, the exposure of the endpoint(s) of the functional device(s) on the first peripheral device can occur by being fixed or by configuring one or more endpoints, e.g., with descriptor fields. As such, the fixing or the configuration of the one or more endpoints, e.g., with descriptor fields, can allow the exposure of certain functionalities of the functional device(s) on the

peripheral device. For example, as discussed in an embodiment in the ‘972 patent, “The decision of which endpoints the first peripheral device 130 should expose can be determined by the Base Unit 100, which can be adapted to analyze which second peripheral devices are connected to the Base Unit 100 (which connection can be through a USB connection or other) and create a configuration for the relevant USB endpoint on the first peripheral device 130” (see *Id.* at 17:9-15), in which the second peripheral device is a functional device connected in some way to a base unit (see *Id.* at 7:58-63). That is, the ‘972 patent further describes that, “The system can be adapted to expose the same type of functional device to the processing device as is connected to the Base Unit and using at least one driver for the functional device installed on the processing device.” *Id.* at 2:61-64.

Thus, the ‘972 patent describes peripheral devices which “allow users, e.g., participants in a meeting room, to make use of at least one functional device, some functional devices or all functional equipment attached to the base unit whereby the at least one functional device has an electronic output such as a digital electronic output and can co-operate with other devices plugged into, coupled, connected or attached in some way to the base unit...” *Id.* at 9:10-17.

Initially, Petitioners lead Ground I with Beel and erroneously suggest ambiguity in the above claimed feature. According to the Petitioners, “[t]his

claim is ambiguous because it is unclear whether it requires “the peripheral device having [an] endpoint,” or an “endpoint of the functional device.”” Petition at 31. Patent Owner, however, submits that the claimed feature is unambiguous and specifically recites the at least one fixed or a configurable endpoint providing the functionality of the functional device exposed or made available on the first peripheral device (emphasis added). That is, Patent Owner submits that one having ordinary skill in the art would have understood that the features recited in Claim 1 (and similarly recited in Claims 9 and 15) are clearly directed to end points of the functional device(s) that are exposed or made available on the first peripheral device, e.g., such that data is transmitted and received from the functional device to the processing device via the at least one fixed or configurable endpoint on the peripheral device. As such, as discussed above and described in the ‘972 patent:

“This allows the base unit to expose and make available any functional device such as a second peripheral device that is connected to the base unit, to one or more first peripheral devices (e.g. receiver devices) such as to expose and make available simultaneously with a plurality of first peripheral device (e.g. receiver devices) in one of following ways:

1. By exposing the or each functional device (such as the or each second

peripheral device) connected to the base unit in a one-on-one manner or in a one to more of the first peripheral devices or user processing devices manner, e.g. to one or more first peripheral devices or user processing devices... e.g. by tunneling the packets from the base unit to the endpoints of the one to more of the first peripheral devices or user processing devices.

2. By interpreting, processing and translating the electronic signal coming from the at least one functional device, e.g. the second peripheral device and, for example mimicking the at least one functional device, e.g. the second peripheral device at the first peripherals' end (e.g. receiver devices' end), either in software or hardware or both. With mimicking is meant that the same device is exposed in the endpoints as the second peripheral device connected with the base unit although the communication is not simply being tunneled as in the first and second methods described above. 3. By combining one or more functional devices, e.g. second peripheral devices or part of a second peripheral device and exposing it to the one or more first peripheral devices, e.g. receiver devices through a custom device in hardware, software or both. 4. By combining one or more functional devices e.g. second peripheral device(s) or part of a second peripheral device and exposing its functionality to the end user through proprietary software. 5. By

combining any of the above methods to provide the function of the functional device e.g. the second peripheral device to the one or more first peripheral devices such as receiver devices.”

Ex. 1001 at 10:17-58.

Moreover, as discussed above, the ‘972 patent explicitly describes “fixed endpoint” as “fixed USB endpoints on the first peripheral device 130 are provided for the basic functionality” (see Ex. 1001 at 16:49-51) and “configurable endpoints” as “The configurable USB endpoints are configured either when pairing a first peripheral device 130 device with a base unit 100 or over the wireless connection 127 between the processing device 130 and the base unit 100. Once configured, the USB endpoints will expose second peripherals devices 91-93 which can be interpreted as custom drivers, vendor specific drivers or default OS drivers. These can be used by either a host application or third party applications. These endpoints can be an exact copy of the ones of the second peripheral device 91-93 connected to the Base Unit 100 or can be dedicated specified endpoints.” (see *Id.* at 16:57-67).

As such, given the intrinsic evidence provided in the ‘972 patent as to the definition and meaning of such terms, one having ordinary skill in the art would have clearly understood that the “fixed or configurable endpoint” cannot refer to

anything else other than an endpoint on the first peripheral device. Thus, Patent Owner argues against Petitioners' allegations with respect to the unambiguous interpretation of the claimed features.

Petitioners then allege that Beel discloses "an 'endpoint'...of the functional device, e.g., A/V components connected to the base unit...Further, the use of USB devices are known to include 'endpoints' to transfer data." Petition at 31-32; Ex. 1002 at [125]. Petitioners then further allege that "The '972 patent also admits that Beel's FIG. 11 (which the '972 patent copied as FIG. 4 and incorporated by reference) discloses endpoints" and that paragraph [0043] of Beel discloses "the at least one fixed or a configurable endpoint is a data source or a data sink which is able to store or emit data, of the functional device exposed or made available on the first peripheral device." *Id.* at 32; Ex. 1002 at [126].

Petitioners then simply conclude that "The disclosure of the peripheral device acting as a "virtual audio device" using a USB Audio Class (UAC) indicates that endpoints of the functional device are "exposed or made available on the first peripheral device" because, for example, Beel states, "[A]udio data is captured at this interface 8-11 internally in the peripheral device 32. This data is then optionally re-encoded and streamed to the communications network to which the peripheral device 32 has access." *Id.*, ¶319 (emphasis added); Ex-1002, ¶130.

Accordingly, the peripheral device of Beel can have a composite device able to store and emit virtual audio/visual data to endpoints, such as a speaker or display. Ex-1002, ¶130.” *Id.* at 33-34.

Petitioners, however, are improperly characterizing the claimed features down to a “gist” or “thrust” of the features and not considering the prior art in its entirety. *See W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). For example, Petitioners allege that Beel discloses endpoints to “allow the ‘functional device,’ such as an A/V components connected to the base unit, to be ‘exposed or made available on the first peripheral device.’” See Petition at 33. Petitioners, however, have not pointed out anywhere in the teachings of Beel of any disclosure of exposing or making available the fixed or configurable endpoints on the first peripheral device. Instead, Petitioners are attempting to impute the teachings of the present invention into the teachings of Beel by improperly characterizing the claimed features to a gist or thrust and alleging Beel teaches the exposing or making available the fixed or configurable endpoints on the first peripheral device as recited in the claims.

That is, while the ‘972 patent indicates that FIG. 4 of the ‘972 patent is “FIG. 11 of WO 2013/037980 entitled “Electronic tools and methods with audio

for meetings” which is incorporated herein by reference,” the ‘972 patent further states that:

“Embodiments of the present invention can include the features discussed with respect to FIGS. 1 to 4 to provide additional functionality which can be shared, for example, by all participants of a meeting who have a processing device 160 optionally with a plug-in first peripheral device 130. In embodiments of the present invention, fixed USB endpoints on the first peripheral device 130 are provided for the basic functionality. These are fixed and are a combination of vendor specific endpoints and a number of standard endpoints and can be interpreted or understood as a custom Driver, a default OS driver and/or a host application as has been described with reference to FIG. 4 do screen sharing and audio. The configurable USB endpoints are configured either when pairing a first peripheral device 130 device with a base unit 100 or over the wireless connection 127 between the processing device 130 and the base unit 100. Once configured, the USB endpoints will expose second peripherals devices 91-93 which can be interpreted as custom drivers, vendor specific drivers or default OS drivers. These can be used by either a host application or third

party applications.”

Ex. 1001 at 4:28-33, 16:44-67 (emphasis added). As such, while the ‘972 patent discusses a similar figure as in Beel, the ‘972 patent clearly describes providing additional functionality with respect to FIG. 4, e.g., including fixed USB endpoints of the functional device exposed or made available on the first peripheral device to provide functionality. There is nothing in the ‘972 patent, however, of any admission that FIG. 11 of Beel nor has Petitioners pointed out any specific teaching in Beel of any such endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Rather, Beel at least describes “a method and a system for connecting a processing device such as a laptop, smartphone, PDA, computer, tablet and suchlike to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a generic communications protocol for communication between processing device and a standard class of peripheral devices.” Ex. 1005 at [0041]. While Beel discusses at [0313] that this “peripheral device can present itself as an audio out device to the processing device such as a laptop, PDA, laptop, smartphone, tablet, PC, etc it is connected to” and at [0323] that “the audio is sent over a port using

generic drivers such as over a USB port 8 using the standard built-in generic audio driver such as UAC driver 7. On the peripheral device 32, the audio packets are read from the generic port, e.g. USB port 11 by a dedicated audio device 14” (see *Id.* at [0313], [0323]), there is no indication in Beel of using any fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device. That is, Beel relates to data flowing from the processing device to the base unit and the attached display/speaker/etc. In other words, while the features recited in the claims are related to conferencing applications, e.g., hosting a unified communication between two or more processing devices, Beel relates to presenting applications, e.g., sharing content on a display. For example, by exposing or making available at least one fixed or configurable endpoint of the functional device on the first peripheral device, as in the present claims, allows accessing a functional device, such as, a speakerphone, high quality cameras, etc. connected to or in a base unit, in low bandwidth/latency environment and makes the functional device available to the unified communication, e.g., Teams, Skype, etc., in a non-intrusive / generic manner which poses very different challenges compared to sharing content to a display, as in Beel.

Thus, there is no indication, nor has Petitioners established, of how Beel teaches that any fixed or configurable endpoint of a functional device, e.g., the

audio device, is exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Instead, Petitioners are attempting to use a POSITA's common knowledge to supply a wholly missing claim limitation without evidentiary support and the petition should be rejected. See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 851 F.3d 1270, 1274-1275 (Fed. Cir. 2017) (expert may not "fill in missing limitations" by alleging that a person of ordinary skill in the art would envision them). For example, without citing any specific teachings in Beel, Petitioners allege that "Beel discloses the 'endpoint' irrespective of whether it must be on the 'peripheral device' or 'functional device.'" See Petition at 32. As basis of such assertion, Petitioners rely on the teachings of the '972 patent (as discussed above) as well as the Almeroth Declaration to fill in such missing limitation. In the Almeroth Declaration, Petitioners' expert suggests that since Beel discloses "A/V components such as microphones, displays, or other 'functional devices' connected to the base unit. These endpoints are described as either fixed or configurable to provide functionalities like audio output through a speaker or visual output on a screen." Ex. 1002 at 125. Petitioner's expert then states (without any reasoned analysis) that "I note that the USB specification discusses how USB devices utilize "endpoints" as part of the data transfer

through connected USB devices. Therefore, for data to pass from a “functional device” to a “peripheral device,” both the functional device and the peripheral device must have “endpoints” (e.g., endpoint on the functional device as a “data source” and the endpoint on the peripheral device as a “data sink”). *Id.* That is, even assuming arguendo that Beel teaches endpoints, Petitioners are improperly characterizing the claimed features to a gist or thrust, in which neither Petitioners nor Petitioners’ expert establish that the teachings of Beel includes the specific teaching of an endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15). Instead, Petitioners are improperly attempting to use a POSITA’s common knowledge to supply a wholly missing claim limitation without evidentiary support, and the petition should be rejected.

Petitioners then rely on the teachings of Dinka, AAPA, and optionally Christison to allege obviousness of Claims 1, 9, and 15. None of Dinka, AAPA, or Christison, however, cure the deficiencies of Beel with respect to the claims. Rather, Dinka is only relied on by the Petitioners to disclose “bidirectional online conferencing.” See Petition at 36, 38. That is, Dinka describes “a mechanism for planning calls or other such communication sessions around the times of viewing activities such as television programmes, DVD or video games.” Ex. 1006 at

2:64-67. There is no indication in Dinka, however, of any endpoint, and let alone, at least one fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Christison is only relied on, optionally, by Petitioners to render “obvious configuring descriptor fields, which is applicable to USB devices.” Petition at 34. That is, Christison only discloses “a Wireless USB (WUSB) hub that allows a wireless communication between wired USB devices and a host system. The WUSB hub acts as a proxy for the wired USB devices and presents them to the host system as if they were native WUSB devices.” Ex. 1011 at 2:58-62. Christison further discusses that “...The WUSB Hub differs from a DWA in that the wired USB devices 1010, 1020 appear to the host system as if they are native WUSB devices. This is accomplished by having the WUSB Hub 1000 “proxy” the attached downstream wired devices on the wireless interface. Therefore, the WUSB hub 1000 appears to the host as one or more WUSB devices, not a DWA, which eliminates much of the control packet overhead used by the standard Wire Adapter Protocol.” *Id.* at 6:24-31. That is, Christison only discloses that the WUSB hub appears to the host as one or more WUSB devices. There is nothing in Christison, nor have Petitioners established any teaching in Christison, of at

least one fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Instead, Christison describes a different structure with different functions than the combination of features as recited in Claim 1 (and similarly recited in Claims 9 and 15). For example, as seen in FIG. 4 of Christison, the HWA 410 is connected to the host 400 as an external device and the HWA 410 then uses a wireless protocol to transmit the data to one of the DWAs 420, 430, which in turn sends the data to the specified USB device 421, 422, 431, or 432 over a wired connection. See Ex. 1011 at 3:59 – 4:16. That is, in Christison, there are merely low level USB transforms and, thus, there is no ending of the USB stream on a peripheral device. That is, even assuming, but not admitting, that the USB devices are functional devices, that the HWA is a peripheral device, and the DWA is a base unit, there is no indication in Christison that the USB devices have endpoints on the HWA to expose or make available the USB devices connected to the DWA.

Therefore, Petitioners have not established that any of the cited references of Beel, Dinka, AAPA, and optionally Christison, taken alone or in combination, discloses or suggests each of the required elements of Claim 1 (and as similarly

recited in Claims 9 and 15). For this reason alone, Petitioners failed to meet its burden of showing a reasonable likelihood that it would prevail with respect to any of the challenged claims, and institution should be denied.

Moreover, while Petitioners allege that “Beel, Dinka, and Christison could have been combined by using Christison’s known technique of presenting a remote device as native to improve or suggest one way for Beel to implement its disclosed virtual devices. Ex-1002, ¶111. The combination would create the predictable result of a web conferencing system that used USB protocols to present remote functional devices as local or “native” functional devices to host a unified communication call, such as Skype, wherein the system could utilize one or more functional devices’ capabilities” (Petition at 27-28), Petitioners have not established “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *See KSR* at 418. Instead, Petitioners have only provided conclusory statements, which are not supported with “reasoned analysis and evidentiary support.” For example, even assuming *arguendo* that Petitioners’ assertions are correct, not only are Petitioners admitting that Christison teaches a “known technique of presenting a remote device as native to improve or suggest one way for Beel to implement its disclosed virtual devices” (emphasis added) (Petition at

27-28, Ex. 1002 at 110-111), Petitioners have not established any “reasoned analysis and evidentiary support” that would have prompted one having ordinary skill in the art to have modified the teachings of Beel to result in the same combination of features as recited in the claims. Instead, assuming *arguendo* that Petitioners allegations are true and proper, the alleged combination would have resulted in a system or method of Beel that includes connecting remote virtual devices to a client computer, which further includes a general teaching of presenting a wireless USB device at native, as taught in Christison. That is, since Christison only describes that the descriptor is merely transformed, e.g., by passing and transforming existing descriptor fields that are received from an endpoint at the functional device, which is passed to the device before it will be sent to the processing device, such modification of the teachings of Beel would have resulted in a specific implementation of presenting virtual devices to a client computer. Neither Petitioners nor Petitioners’ expert, however, has provided any reasoned analysis that such a specific implementation would have been usable in a unified communication, e.g., for exchanging high quality audio/video data at low bandwidth and latency environments. Instead, only through the features recited in the claims, e.g., by having fixed or configurable endpoint(s) of the functional device exposed or made available on the first peripheral device, is one

skilled in the art able to, for example, 1) transform data (based on the type of data) to enable a high quality audio/video experience; or 2) present an endpoint that reflects these capabilities (for example only exposing certain resolutions of a camera that work over the low bandwidth connection).

Thus, Petitioners have not provided any reasoned analysis and evidentiary support in any of the teachings of Beel, Dinka, or Christison that the alleged combination would have somehow resulted in at least one fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as recited in Claim 1 (and similarly recited in Claims 9 and 15). Instead, even assuming *arguendo* that Beel teaches having an endpoint as suggested by the Petitioners, one having ordinary skill in the art would have appreciated that such a combination of features as recited in the claims could have been another way of modifying the teachings of Beel via effective endpoints on the first peripheral device, and Petitioners only rely on conclusory statements to allegedly suggest that the teachings of Beel, Dinka, AAPA, and optionally Christison, could have somehow been combined in the same way as recited in Claim 1 (and similarly recited in Claims 9 and 15).

Without more than conclusory statements, Petitioners have not shown that the cited art discloses or suggests the endpoints as claimed and institution should

be denied.

C. Ground II is deficient with regard to Claims 1-18 because the alleged combination fails to disclose or suggest the at least one fixed or configurable endpoint of a functional device exposed or made available on the first peripheral device, as required by Claims 1, 9, and 15

For Ground II, Petitioners allege that a combination of the teachings of Kaplan, Van De Laar, AAPA, and optionally Christison, discloses “at least one fixed or a configurable endpoint, where the at least one fixed or a configurable endpoint is a data source or a data sink which is able to store or emit data, of the functional device exposed or made available on the first peripheral device,” as recited in Claim 1 and similarly recited in Claims 9 and 15. See Petition at 52-56, 64-65. Petitioners, however, have failed to demonstrate how the teachings of Kaplan modified with the teachings of Van De Laar, AAPA, and optionally Christison, taken alone or in combination, disclose or suggest: 1) at least one fixed or a configurable endpoint... of the functional device exposed or made available on the first peripheral device; as required by independent Claim 1; 2) providing at least one fixed or a configurable endpoint... of the functional device exposed or made available on the first peripheral device, as required by independent Claim 9; and 3) at least one fixed or a configurable endpoint...of a

functional device exposed or made available on the first peripheral device, as required by independent Claim 15.

Petitioners lead Ground II with Kaplan and allege that Kaplan “discloses both the ‘peripheral device’ and the ‘functional device’ having an ‘endpoint.’” Petition at 52-53. Petitioners, however, have only provided conclusory statements, which are not supported with “reasoned analysis and evidentiary support” or is attempting to use a POSITA’s common knowledge to supply a wholly missing claim limitation without evidentiary support, and the petition should be rejected. Specifically, Petitioners have not provided how Kaplan teaches the endpoint as recited in Claim 1 (and similarly in Claims 9 and 15).

For example, Petitioners allege that “Kaplan also discloses an “endpoint” ... of the functional device,” e.g., display 210 connected to the receiver 110. *Id.*, ¶¶21-22, 28-34, claim 14, FIG. 2; Ex-1002, ¶200. The “endpoint” is either “fixed” or “configurable” because it would either obviously be configured or fixed to be able to provide display functions to receive/display data. Ex-1002, ¶200. Therefore, Kaplan discloses the “endpoint” irrespective of whether it must be on the “peripheral device” or “functional device,” which the claim does not recite clearly. Ex-1002, ¶200.” *Id.* at 52.

Paragraph [0021] of Kaplan, however, only generally discloses that:

“...the receiver 110 is connected to display device 210, for example, a television or other video display monitor. The embodiment illustrated in FIG. 2 utilizes an HDMI cable carrying both audio and video data from the receiver 110 to the display device 210. In one embodiment, in order to view content received by the receiver 110, the user may select an input on the display device 210 corresponding to the input connector to which the HDMI cable or other cable(s) is connected... embodiments of the present invention provide a “walled garden” approach in which no configuration actions on the part of the user are needed. Because the receiver 110, the transmitter 120, and/or the remote control 130 are pre-paired prior to shipment from the manufacturer and/or delivery to the user, the user does not need to configure these devices and the user experience is more streamlined—the user just plugs-in the devices and the operate as intended. As an example, the receiver 110 is coupled to a television using an HDMI cable, the transmitter 120 is inserted into the USB port of a computer containing video files, and with no wireless setup actions, the user is able to watch the videos on the television.”

Ex. 1008 at [0021]. Kaplan further discloses that “Using the installed software,

the user is able to access video footage or other media stored on the computer, transmit the media to the receiver 110, and view and/or listen to the media on the display device 21.” *Id.* at [0022]. Kaplan also discloses at [0028] that:

“As an example use case, a user uses remote control 130 to control the receiver 110. The user interface is displayed on the display device 210 and two-way communication is established between the receiver 110 and the transmitter 120. Requests from the user may pass from the remote control 130 to the receiver 110, through the wireless connection to the transmitter 120, and then from the transmitter 120 to the computer 220. For an application executing on the computer 220, information related to the available videos (i.e., metadata) may be transmitted to the receiver 110 and displayed on the display device 210.”

Id. at [0028].

In other words, Kaplan discusses offering generic capabilities through a USB dongle that rely on software on the processing device to use these in order to connect to a display or audio, e.g., the software on the processing device is used to tunnel data. That is, Kaplan discloses exposing a mass storage device and a transmitter; neither of which relate to an endpoint that is related to the functional

device, nor specifically to a fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device. That is, Petitioners have not provided “reasoned analysis and evidentiary support” that Kaplan teaches the recited features, since Petitioners have not indicated anywhere in Kaplan of any endpoint, let alone a fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15), but rather only relies on conclusory statements for establishing the same.

While Petitioners allege the Almeroth Declaration further supports such allegations, the Almeroth Declaration has similar deficiencies as the Petition. That is, the Almeroth Declaration similarly references the same portions of Kaplan as referenced in the Petition without providing any reasoned analysis and evidentiary support of how such disclosure of Kaplan, in fact, teaches the endpoint, and specifically, a fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as recited in Claim 1 (and similarly recited in Claims 9 and 15). *See* Ex. 1002 at [200]. In other words, Petitioners are attempting to improperly use a POSITA’s common knowledge to supply a wholly missing claim limitation without evidentiary support.

Petitioners then rely on the teachings of Van De Laar, AAPA, and optionally Christison to allege obviousness of Claims 1, 9, and 15. None of Van De Laar, AAPA, or Christison, however, cure the deficiencies of Kaplan with respect to Claims 1, 9, and 15. Rather, Van De Laar only generally discloses that “various dockees receive different sets of peripheral functions that can be accessed. In particular, the host, e.g. a PC, may make available to dockee shared peripherals as well as exclusive peripherals, whereby exclusive peripherals (i.e. peripherals that can only accept or provide data from/to a single source).” Ex. 1007 at [0106]. Van De Laar further discloses at [0082] that:

“The system enables multiple dockee devices (such as smartphones, laptops, tablets) to be simultaneously docked to a wireless docking host (WDH) which is connected to a set of peripherals (such as display, mouse, shared local storage, lights/blinds controls, internet connection), while the dockee devices are distinguished between primary and secondary docking devices. Primary dockee devices will have direct access to the peripheral functions offered by the WDH, whereas the secondary dockee devices will be connected to the WDH to enable monitoring selected AV data.”

Id. at [0082]. That is, Van De Laar discloses a software solution for

accommodating direct communication, e.g., via Wi-Fi Direct, that enables multiple dockee devices (such as smartphones, laptops, tablets) to be simultaneously docked to a wireless docking host (WDH). There is nothing in Van De Laar, however, of any indication of a fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Christison is only relied on, optionally, by Petitioners to render “obvious configuring descriptor fields, which is applicable to USB devices.” Petition at 55. That is, Christison only discloses “a Wireless USB (WUSB) hub that allows a wireless communication between wired USB devices and a host system. The WUSB hub acts as a proxy for the wired USB devices and presents them to the host system as if they were native WUSB devices.” Ex. 1011 at 2:58-62.

Christison further discusses that:

“...The WUSB Hub differs from a DWA in that the wired USB devices 1010, 1020 appear to the host system as if they are native WUSB devices. This is accomplished by having the WUSB Hub 1000 “proxy” the attached downstream wired devices on the wireless interface. Therefore, the WUSB hub 1000 appears to the host as one or more WUSB devices, not a DWA, which eliminates much of the control packet overhead used by the standard

Wire Adapter Protocol.”

Id. at 6:24-31. That is, Christison only discloses that the WUSB hub appears to the host as one or more WUSB devices. There is nothing in Christison, nor have Petitioners established any teaching in Christison, of at least one fixed or a configurable endpoint of the functional device exposed or made available on the first peripheral device, as required by Claim 1 (and similarly recited in Claims 9 and 15).

Instead, Christison describes a different structure with different functions than the combination of features as recited in Claim 1 (and similarly recited in Claims 9 and 15). For example, as seen in FIG. 4 of Christison, the HWA 410 is connected to the host 400 as an external device and the HWA 410 then uses a wireless protocol to transmit the data to one of the DWAs 420, 430, which in turn sends the data to the specified USB device 421, 422, 431, or 432 over a wired connection. See Ex. 1011 at 3:59 – 4:16. That is, in Christison, there are merely low level USB transforms and, thus, there is no ending of the USB stream on a peripheral device. That is, even assuming, but not admitting, that the USB devices are functional devices, that the HWA is a peripheral device, and the DWA is a base unit, there is no indication in Christison that the USB devices have endpoints on the HWA to expose or make available the USB devices connected to the

DWA.

That is, Petitioners have not established that any of the cited references of Kaplan, Van De Laar, AAPA, and optionally Christison, taken alone or in combination, discloses or suggests each of the required elements of Claims 1, 9, and 15. For this reason alone, Petitioners failed to meet its burden of showing a reasonable likelihood that it would prevail with respect to any of the challenged claims, and institution should be denied.

VI. CONCLUSION

Based on the deficiencies identified above, Petitioners have not shown a reasonable likelihood of prevailing on any of its proposed grounds. Thus, Patent Owner respectfully submits that the Board should decline to institute an IPR proceeding.

Respectfully submitted,

Date: April 30, 2025

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CERTIFICATION UNDER 37 CFR §42.24(d)

Under the provisions of 37 CFR §42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response totals 10,496, which is less than the 14,000 allowed under 37 CFR §42.24(b)(1).

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on April 30, 2025, a complete and entire copy of this Patent Owner's Preliminary Response were provided via electronic service, to the Petitioners by serving the correspondence address of record as follows:

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