

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,

Petitioner,

v.

VIDEO SOLUTIONS PTE. LTD.,

Patent Owner.

IPR2024-00194
U.S. Patent No. 9,204,099

**PATENT OWNER VIDEO SOLUTIONS PTE. LTD.
PRELIMINARY RESPONSE TO PETITION**

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PATENT OWNER'S EXHIBIT LIST

EX2001	Declaration of Dr. Jacob Sharony
EX2002	Second Amended Docket Control Order, <i>Video Solutions PTE. LTD. v. Cisco Systems, Inc.</i> , 2:23-cv-00222-JRG, Doc. 56 (E.D. Tex. Nov. 27, 2023)
EX2003	"Texas Patent Trial Scrubbed After Lawyers, Witnesses Ready to Go," Bloomberg Law, Aug. 18, 2023 [accessed from https://news.bloomberglaw.com/ip-law/texas-patent-trial-scrubbed-after-lawyers-witnesses-ready-to-go]
EX2004	Calendar Events Set for 2/10/2025 - 2/11/2025, Judge Rodney Gilstrap [accessed Feb. 27, 2024]
EX2005	Comparison of Districts Within the First Circuit — 12-Month Period Ending December 31, 2023 [accessed from https://www.uscourts.gov/statistics/table/na/federal-court-management-statistics/2023/12/31-3]
EX2006	Defendant's Amended Invalidity Contentions, <i>Video Solutions PTE. LTD. v. Cisco Systems, Inc.</i> , 2:23-cv-00222-JRG (E.D. Tex. Dec. 11, 2023)

I. INTRODUCTION

The Board should deny institution of IPR2024-00194 because the Petition fails to carry its burden of demonstrating unpatentability with regard to challenged claims 3-6 and 10 (“the Challenged Claims”) of U.S. Patent No. 9,204,099 (“the ’099 Patent”). In particular, Grounds 1-4 of the Petition fail to evaluate both the claims and the asserted references as a whole, which results in the Petition improperly ignoring several claim elements that are unmet by the Grounds. Additionally, the Petition ignores several fundamental differences between the subject matter of Challenged Claims and the asserted references. *Infra*, Sec. VI. These unaddressed differences cause strained readings of the art, and generate asserted combinations of art that contradict and frustrate the purpose of the primary references. Accordingly, the Board should deny institution of the Petition because it fails to set forth a reasonable likelihood that the Challenged Claims are invalid.

Additionally, the Board should discretionarily deny institution under the *Fintiv* standard. Trial in the corresponding district court litigation is set to occur several months before the Board would even reach a final written decision in this IPR. Petitioner also provided insufficient assurances to the Board that, even if instituted, parallel invalidity proceedings will not also occur in the district court litigation. Accordingly, in the interest of judicial economy and efficiency, the Board

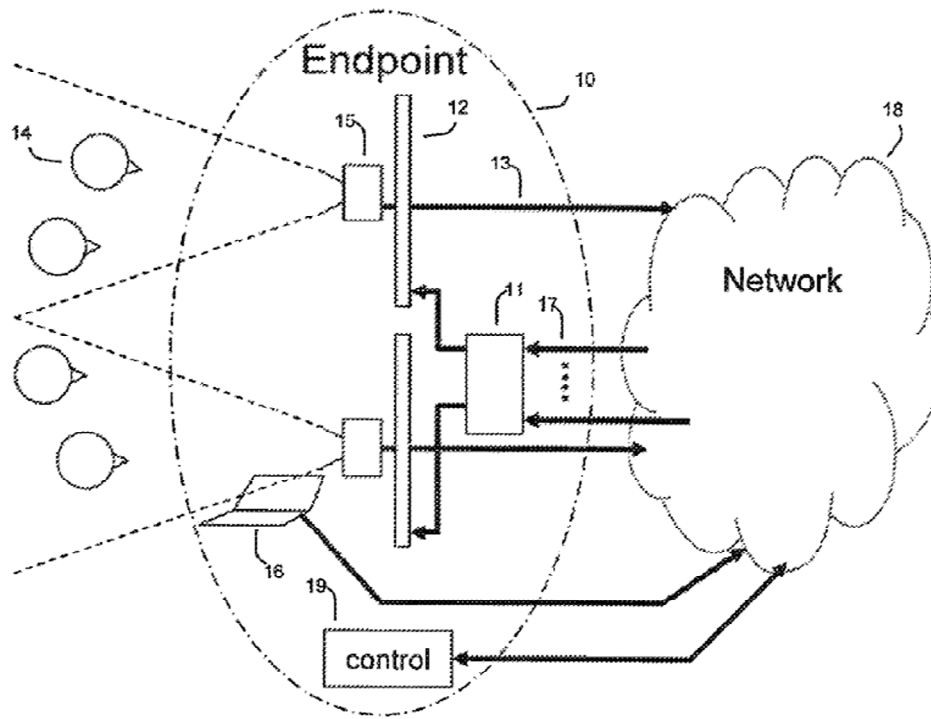
should discretionarily deny institution to permit for a single invalidity determination to be made in the earlier proceeding at the district court.

II. OVERVIEW OF THE CHALLENGED CLAIMS OF THE '099 PATENT

The Challenged Claims of the '099 Patent are generally directed to teleconferencing systems that include both mesh-connected and non-mesh endpoints, which permit non-mesh connected endpoints to participate in a teleconference as if they were part of the mesh topology. *See, e.g.*, EX1001, 17:47-58. As described in the background section of the '099 Patent, some prior art teleconferencing systems connect endpoints in a full mesh topology such that “each endpoint is connected directly to each other endpoint in the conference,” which allows for each mesh-connected endpoint to have “complete freedom to present video and other collaboration material uniquely and independently of the way it is presented at other endpoints.” *Id.*, 2:36-40. However, prior to the '099 Patent, in mixed topologies such as topologies including non-mesh-connected and mesh-connected endpoints, the “non-mesh parties could participate in a mesh conference ***but without*** the personal control over video content and other benefits offered by the filmstrip invention in a mesh conference.” *Id.*, 15:37-41 (emphasis added). In contrast, the Challenged Claims of the '099 Patent are directed to a technical solution that permits for non-mesh participants to enjoy the benefits of a mesh topology

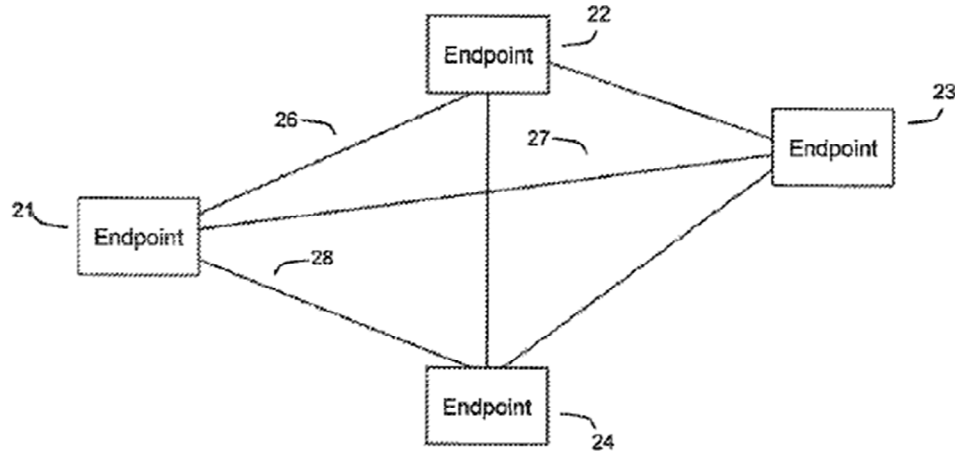
without being a mesh-connected endpoint. *Id.*, 15:42-49, 17:47-58; EX2001, ¶¶34-36.

Referring to FIG. 1 of the '099 Patent (reproduced below), an example endpoint 10 participating in a teleconference can include video cameras 15, monitors 12, and associated controllers/devices 11, 16, and 19 that permit for conference participants 14 to participate in a teleconference with other endpoints. EX1001, 5:4-35, FIG. 1. The conference participants 14 at the endpoint 10 can participate in a teleconference, for example, by viewing the “multiple video streams and collaboration data 17 [received] from all other endpoints participating in a given conference” on the monitors 12 and transmitting “video streams 13” generated by the cameras 15 to the other endpoints. *Id.* Other endpoint configurations are also possible, such as each endpoint “having a single display screen intended to show video or collaboration material” from the other conference participants. *Id.*, 5:36-38; EX2001, ¶37.



Id., FIG. 1.

The '099 Patent depicts an example of a mesh configuration of endpoints in a teleconference with regard to FIG. 2 (reproduced below). As described in the background section of the '099 Patent, in the exemplary mesh configuration depicted in FIG. 2, “each endpoint is connected directly to each other endpoint in the conference,” and “each other endpoint has complete freedom to present video and other collaboration material uniquely and independently of the way it is presented at other endpoints.” *Id.*, 2:36-40; EX2001, ¶38.



Id., FIG. 2.

The background section of the '099 Patent also describes that prior art non-mesh videoconferences “hosted by a Multiparty Control Unit (MCU)” involved the “MCU consolidat[ing] all the video feeds from the end points and present[ing] appropriate video images to each of the end points of all the video camera and collaboration material video feeds in the conference.” *Id.*, 1:34-39. The '099 Patent describes that “MCUs typically *permit limited independent control* of what images are promoted to full-scale size,” including “permit[ting] ‘paging’ between individual images or [] enabl[ing] automatic promotion of single images or image-combinations using audio or manual cues.” *Id.*, 1:45-50 (emphasis added). The '099 Patent depicts example prior art “MCU screen layouts” in FIGS. 3a-c, which show the “screen 31 is simply divided into equal sized panes 32” (FIG. 3a, reproduced below) and “[v]ideo A of the current talker at is rendered in the largest ‘pane’ 33,

other participant Videos B, C and D are rendered in the smaller panes 34" (FIG. 3b, reproduced below). *Id.*, 1:45-64, FIGS. 3a-c.

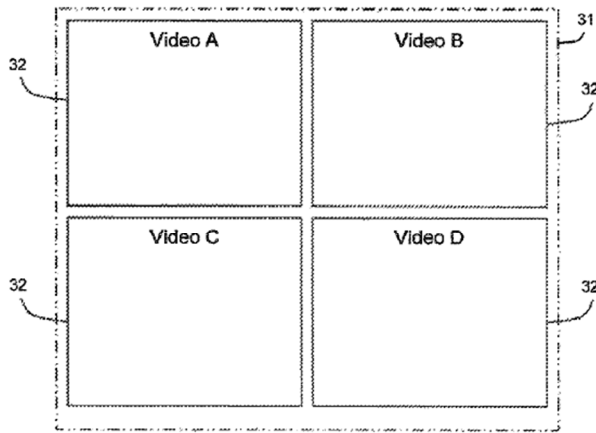


Fig 3a

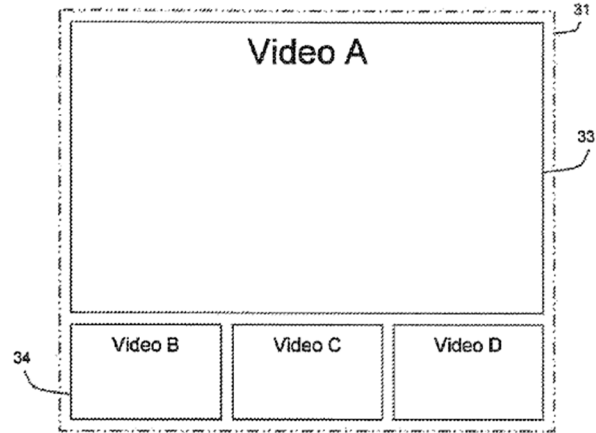


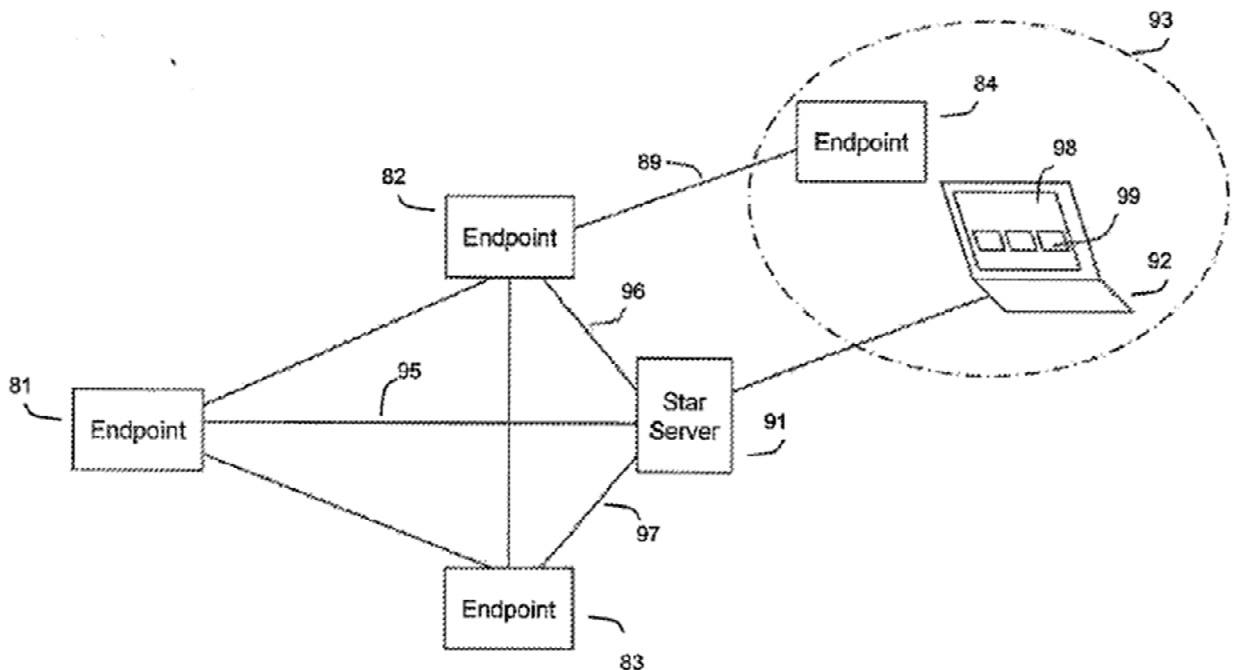
Fig 3b

Id., FIGS. 3a-b.

The '099 Patent further describes that prior art teleconferencing systems using mixed topologies with mesh and non-mesh endpoints would carry over similar limitations restricting the independent control of video content by non-mesh participants. For example, the '099 Patent describes that in prior art mixed topologies, the “non-mesh parties could participate in a mesh conference *but without the personal control over video content* and other benefits offered by the film strip invention in a mesh conference.” *Id.*, 15:38-41 (emphasis added).

The Challenged Claims of the '099 Patent are directed to a technical solution that “relates to control to mixed topology conferences” in which non-mesh participants are able “to exercise the same control over [] their video presentation as

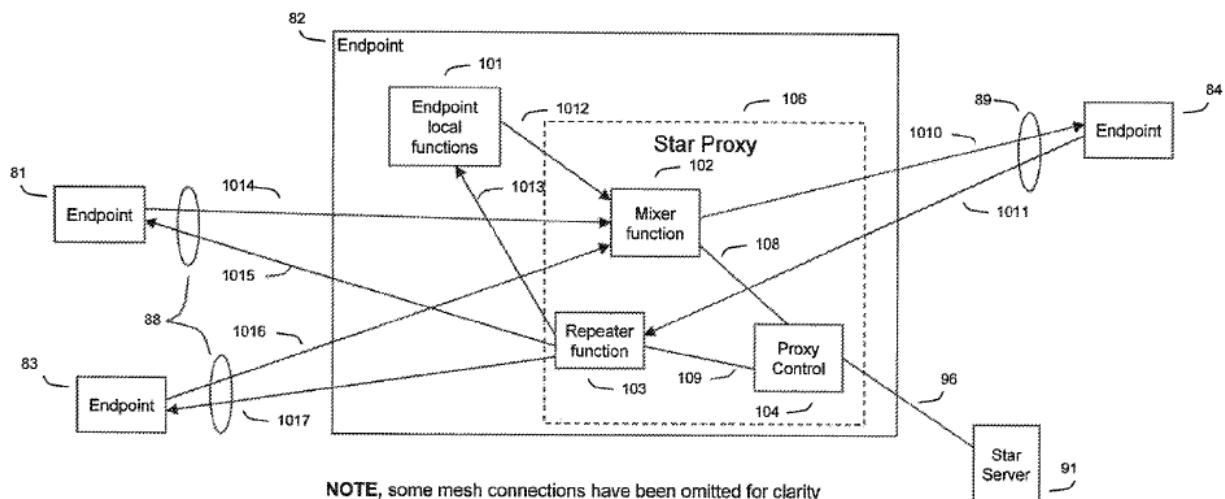
would a mesh connected user.” *Id.*, 15:42-49; EX2001, ¶¶39-40. Referring to FIG. 9 (reproduced below) as an illustrative example of the '099 Patent's solution, a mixed topology includes mesh-connected endpoints 81-83, a non-mesh endpoint 84 (“star endpoint 84”), and a server 91 (“star server 91”) that facilitates full teleconference participation of the non-mesh endpoint 84 with the mesh-connected endpoints 81-83 through the use of control connections 95-97. *Id.*, 16:6-35, FIG. 9; EX2001, ¶41.



Id., FIG. 9.

Referring to FIG. 10 (reproduced below) as another illustrative example of the '099 Patent's solution, the mixed topology includes the mesh-connected endpoints 81-83, the non-mesh endpoint 84, and the server 91 depicted in FIG. 9, as well as a

proxy 106 and control connections 108-109. The example proxy 106 includes a mixer function 102 to receive, mix, and retransmit video feeds from the mesh-connected endpoints 81-83 to the non-mesh endpoint 84. *Id.*, 16:36-67, FIG. 10. The proxy 106 also includes a repeater function 103 that receives and retransmits the video feed from the non-mesh endpoint 84 to the mesh-connected endpoints 81-83. *Id.* The proxy 106 additionally includes a proxy control function 104 that interfaces with the server 91 to control operation of the mixer function 102 and the repeater function 103 via the control connections 108 and 109 to serve appropriate video feeds from the mesh endpoints 81-83 to the non-mesh endpoint 84. *Id.* In describing embodiments according to FIG. 10, the '099 Patent clarifies that “[m]ost call set-up connections which function in a well-known way” are “omitted from FIG. 10 for clarity,” and FIG. 10 itself further specifies that “some mesh connections have been omitted for clarity.” *Id.*, 16:51-53, FIG. 10; EX2001, ¶¶42-43.



Id., FIG. 10.

The '099 Patent describes exemplary embodiments that allow a non-mesh endpoint, such as the endpoint 84, to fully participate in a teleconference with mesh endpoints, such as the endpoints 81-83, through a “filmstrip user interface” that permits the non-mesh endpoint “to exercise the same control over the their video presentation as would a mesh connected user.” *Id.*, 15:46-49. For instance, the '099 Patent contemplates exemplary embodiments where a server in a mixed topology can receive video feeds from all mesh endpoints, and transmit a filmstrip to a non-mesh endpoint. The '099 Patent further explains that user interaction with the filmstrip, such as selecting particular video feeds to promote, can be received and used to select and subsequently transmit appropriate video streams to the non-mesh endpoint. *Id.*, 15:4-57, 17:47-64; EX2001, ¶¶43-44.

The '099 Patent further describes how in exemplary embodiments, “[t]he proxy allows the endpoint 84 to participate in the conference in much the same way as if it were part of the mesh topology.” *Id.*, 17:47-49. In an illustrative example, the '099 Patent describes that for bandwidth considerations it can be “undesirable to stream high definition video to the [non-mesh] endpoint 84 from each mesh-connected endpoint,” such that some embodiments only “stream the full size feed from the endpoint currently promoted to the main window” while streaming

“reduced size feeds” for other endpoints in the teleconference to “create the film strip.” *Id.*, 17:49-56. Through a user interface on the non-mesh endpoint and the control connections, proxy, and server discussed above, “[t]he user can then select a frame on the film strip for promotion, and the promoted feed is then substituted for the current full sized frame feed.” *Id.*, 17:56-58; *see also id.*, 4:5-32, 17:59-64.

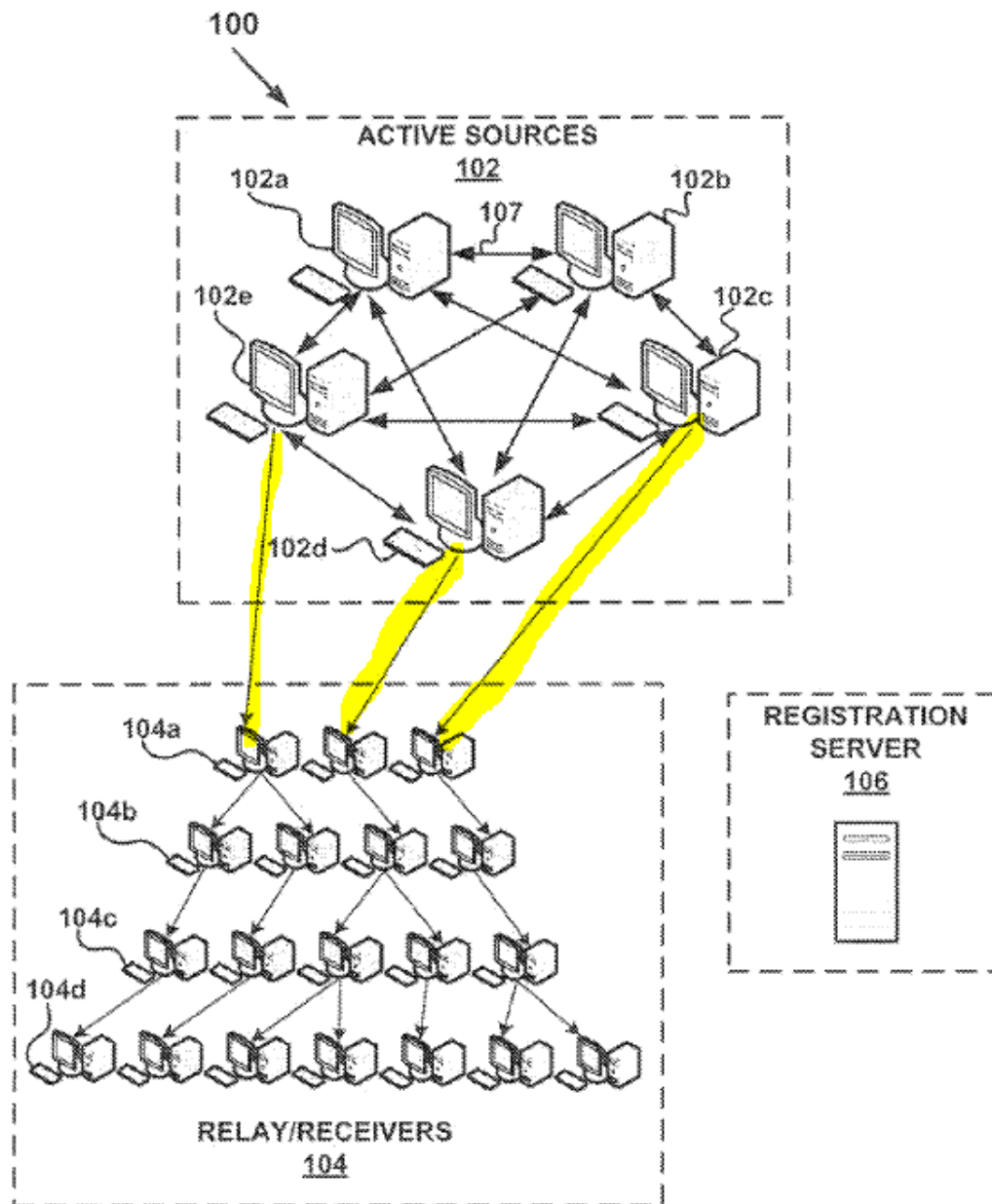
Furthermore, while the discussion above focusses on the benefits of the mixed topology of the '099 Patent with regard to non-mesh endpoints, mesh-connected endpoints similarly are able to receive and use video feeds from non-mesh endpoints as if they were mesh participants. *Id.*, 16:47-67, 17:47-66 (non-mesh endpoints can “participate in the conference in much the same way as if it were part of the mesh topology”), FIG. 10. For example, the '099 Patent describes that “***all end points***, [non-mesh] or mesh, benefit from the ability to use the filmstrip” features described throughout the '099 Patent. *Id.*, 17:65-66; EX2001, ¶¶43-44.

Additionally, the prosecution of the Challenged Claims was brief, with the Challenged Claims being initially identified as allowable by the Office and not receiving a substantive rejection. EX1002.

III. OVERVIEW OF THE ASSERTED REFERENCES

A. SETTON (EX1005)

In contrast to the technical solution of '099 Patent that permits for non-mesh endpoints to participate in a teleconference with mesh endpoints as if they are part of the mesh topology (*supra*, Sec. II), the Setton reference is directed to a system that uses peer-to-peer connections to stream a teleconference among a group of mesh-connected endpoints (“active sources”) to a broader audience of observing endpoints (“relay/receivers”). EX1005, [0003], [0014]-[0018]. Referring to Setton's FIG. 1 (reproduced below), Setton's peer-to-peer network 100 is divided into active sources 102 that “generate content (e.g., a video stream, an audio stream, etc.),” and relay/receivers 104 that “do **not** generate content” and instead receive the content generated by the active sources 102. *See* EX1005, [0014], [0016], [0018]-[0019] (emphasis added). As indicated by the bi-directional arrows between the active sources 102 and the unidirectional arrows from the active sources 102 to the relay/receivers 104 (highlighted in yellow), the relay/receivers 104 are passive observers of the teleconference among the active sources 102. *Id.*, [0016]-[0019], [0028]; EX2001, ¶¶45-46.



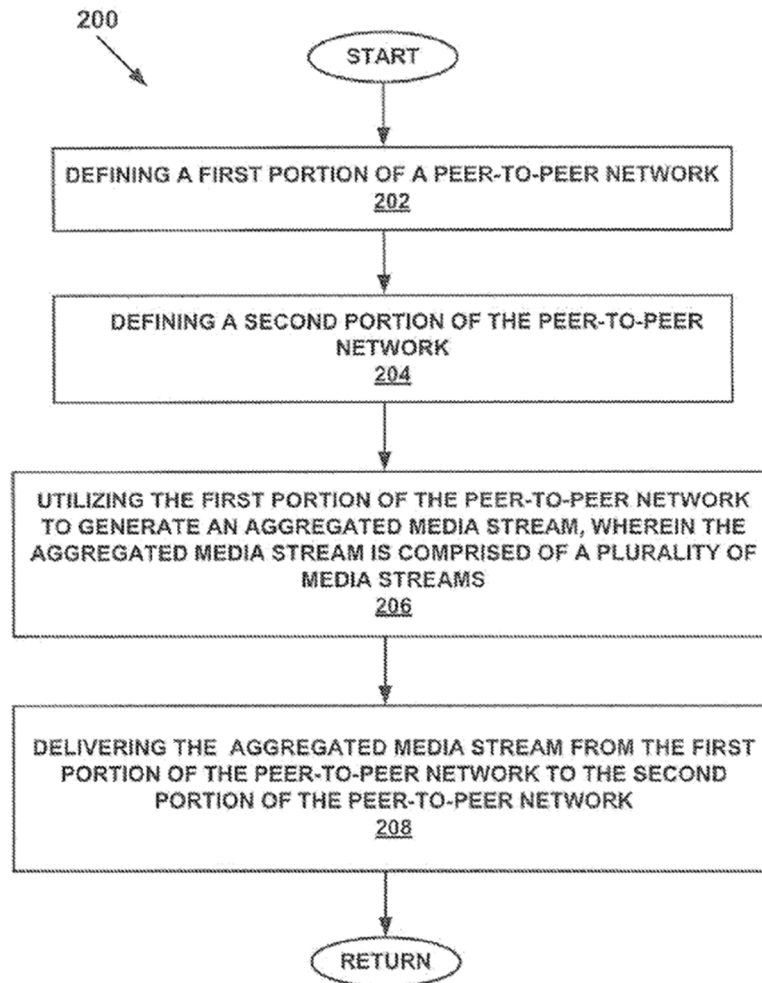
Id., FIG. 1 (annotations added).

For example, Setton describes that “the bi-directional arrows, typically shown as 107, denote packet exchanges between the active sources [102],” that the active sources 102 “generate an aggregated media stream . . . using a mesh based data

aggregation peer-to-peer protocol,” and that “the aggregated media stream [from the active sources 102] is transmitted to the relay/receivers 104 . . . via a tree-based peer-to-peer *video multicast protocol*.” *Id.*, [0019], [0023] (emphasis added). Setton provides an illustrative teleconference example of its technology by describing the active sources as “the *teleconference speakers*” and the relay/receivers as “[l]isteners of the teleconference.” *Id.*, [0028] (emphasis added); *see also id.*, [0030]; EX2001, ¶47.

Setton further describes that its network configuration 100 as designed to minimize network delay between active sources (“teleconference speakers”) so that they “do not suffer from unacceptable delay issues” because they “are conversing[] and the delay between them needs to be kept extremely low.” *Id.* Setton’s teaches that its relay/receivers (“listeners of the teleconference”) “can tolerate a higher delay, on the order of a few seconds, as long as the media streams originating from the different speakers remain synchronized.” *Id.* Setton explains that by treating active sources and relay/receivers differently in terms of acceptable network delays, its multicasting solution can employ “conventional peer-to-peer video streaming distribution mechanisms” that were not possible when “all peers [are treated] equally.” *Id.*; EX2001, ¶¶47-48.

Additionally, Setton states that “*the* aggregated media stream” (singular) is generated and transmitted by the active sources to the relay/receivers. *Id.*, [0014] (“*[t]he aggregated stream* is transmitted to all the relay/receiver peers via application layer multicast tree(s)” (emphasis added)), [0022]-[0023]. But there is no disclosure or suggestion in Setton of the active sources receiving requests for, generating, or transmitting individualized aggregated media streams to any of the relay/receivers. *Id.*, [0018]-[0019], [0022]-[0023]. For example, FIG. 2 (reproduced below) illustrates Setton’s “process [200] for peer-to-peer media streaming,” which involves defining the active sources (“first portion”) and the relay/receivers (“second portion”) (202-204), the active sources generating an aggregated media stream (206), and then delivering the aggregated media stream to the relay/receivers (208). *Id.*, [0015]-[0016], [0022]-[0023], FIG. 2. The process 200 is not depicted or described as involving any input, control, or requests from the relay/receivers (“second portion”) related to the content being transmitted in the aggregated media stream, let alone any of the relay/receivers transmitting media streams to the active sources. EX2001, ¶¶49-55.



Id., FIG. 2.

While Setton does describe using different protocols to generate and transmit different versions of the aggregated media stream, this discussion is limited to differentiating between prioritized media streams transmitted among the active sources and a lower priority media stream broadcast to the relay/receivers. *Id.*, [0014], [0019], [0028]-[0030] (“the multi-tier distribution enables different quality of service requirement for *different sets of peers*” (emphasis added)). Setton

illustrates that several versions of an aggregated “super-stream” are generated by “members of *active sources 102*” and “transmitted as a unique stream to *the rest of the active sources.*” *Id.*, [0019] (emphasis added); EX2001, ¶56.

Setton is silent, however, regarding the *content* of the aggregated media stream being transmitted to the relay/receivers. At most, Setton describes that “the aggregated media stream is comprised of a plurality of media streams.” *Id.*, Abstract, [0019]. Additionally, Setton is silent as to *how* the aggregated media stream is presented on the relay/receivers. As noted above, Setton's focus is on a network configuration that permits for peer-to-peer multicasting of the aggregated media stream from a group of active sources to a group of passive relay/receivers who do not generate content and does not detail how the stream is presented on the relay/receivers. *Id.*, [0014], [0018], [0028]; EX2001, ¶57.

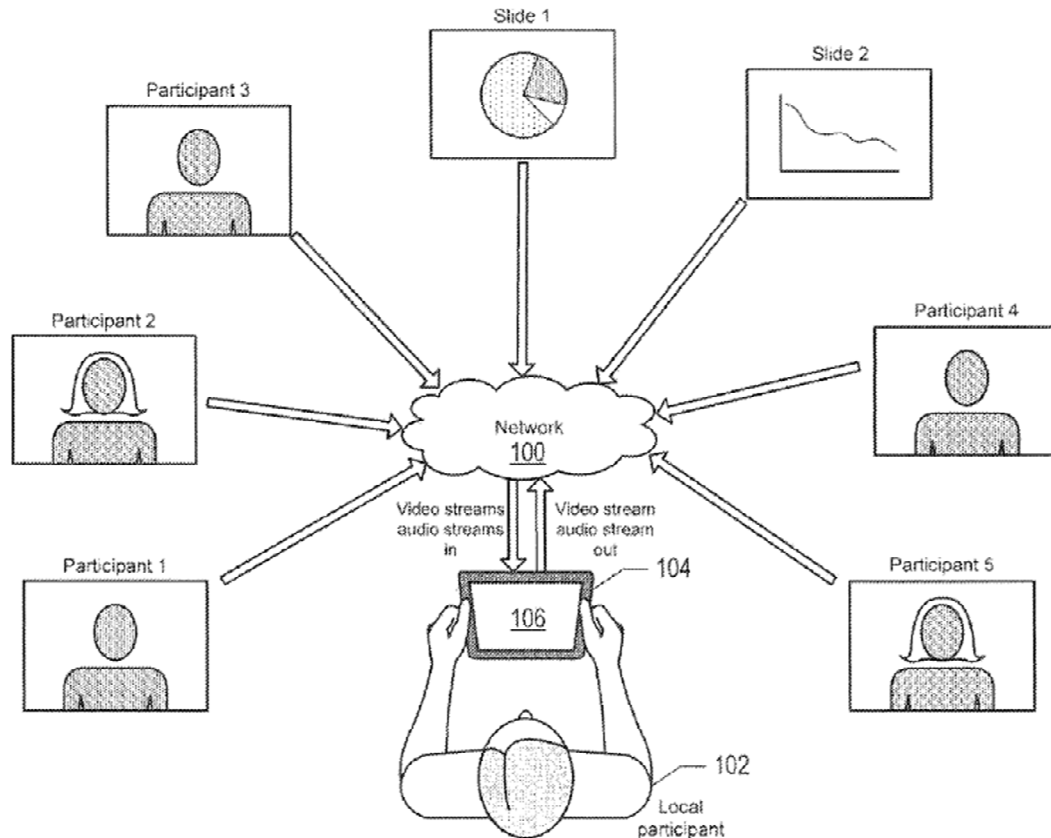
Setton further describes that a registration server 106 manages the network configuration 100 as well as the designation of peers as either active sources 102 or relay/receivers 104. *Id.*, [0014], [0026], FIG. 1. Setton's registration server 106 permits peers to transition between being active sources 102 and relay/receivers 104 based on whether the peers want to participate in or passively observe the teleconference. *Id.*, [0026]. For instance, in one example Setton describes that a peer acting as a “speaker” who stops participating in the videoconference would

transition from being an active source to a relay/receiver. *Id.* In another example, Setton illustrates that a peer acting as “a member of the audience” and seeking to “join[] the discussion” would need to transition from being a relay/receiver to being an active source. *Id.*; EX2001, ¶58.

B. BAKER (EX1006)

In contrast to the Challenged Claims of the '099 Patent, which are generally directed to a technical solution for teleconferencing in mixed network topologies with mesh and non-mesh endpoints, the Baker reference is focused on presenting and navigating between streams from multiple conference participants on a portable electronic device (“PED”). *See* EX1006, Abstract. Referring to FIG. 1 (reproduced below), Baker's primary embodiment, which is carried forward from FIG. 1 through FIGS. 10A-B, involves a PED 104 associated with a participant 102 that directly receives streams (e.g., video and audio streams) for each of the conference participants over network 100 and then locally determines how to present the streams on display 106. *Id.*, 2:31-49, 3:6-8, 4:2-4, 4:25-30, 4:48-57, FIGS. 1-4. For example, Baker explains that that the “video and audio *streams* generated by *each of the remote participants* are sent to the network 100 and *received by the PED 104.*” *Id.*, 2:43-46 (emphasis added). Baker further describes “the *video stream of each participant is received by the PED 104* and arranged in a data structure” that

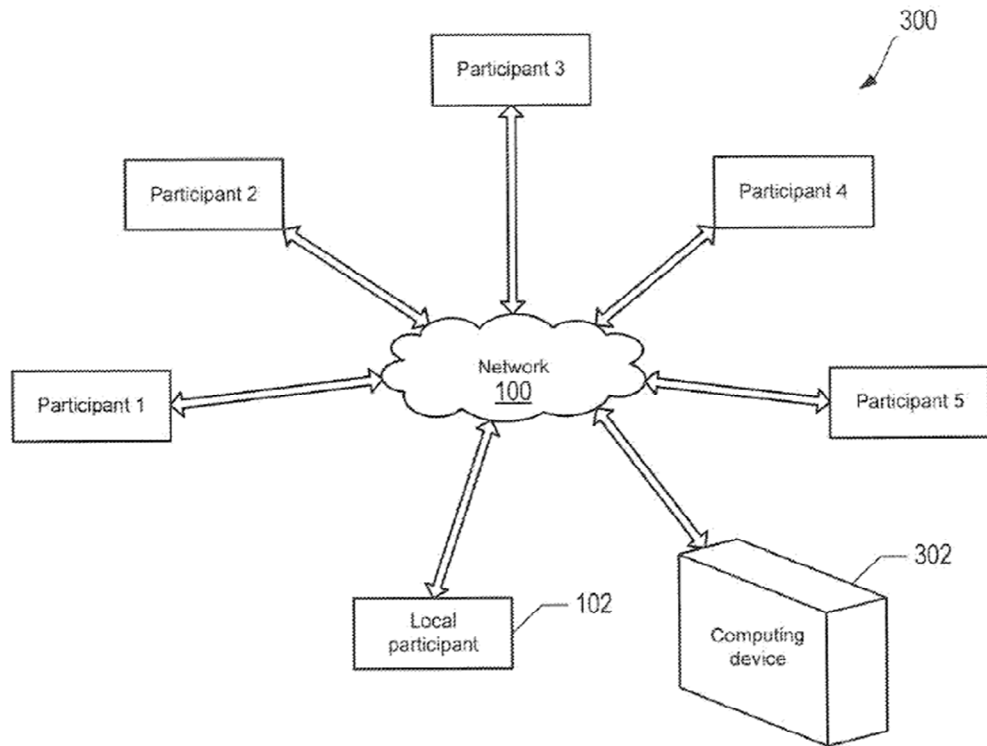
“enables each video stream to be presented in real time within the boundaries of the associated viewing area . . . of the display 106.” *Id.*, 4:48-55 (emphasis added); EX2001, ¶¶59-62.



Id., FIG. 1.

In another example, as illustrated in FIG. 3 (reproduced below), Baker describes a client-server network 300 in which a “centralized computing device 302” receives and processes “the video and audio streams *from each of the participants*,” and then “sends the video and audio streams generated by the remote participants 1-5 to the local participant 102.” *Id.*, 3:55-4:8 (emphasis added). Baker further

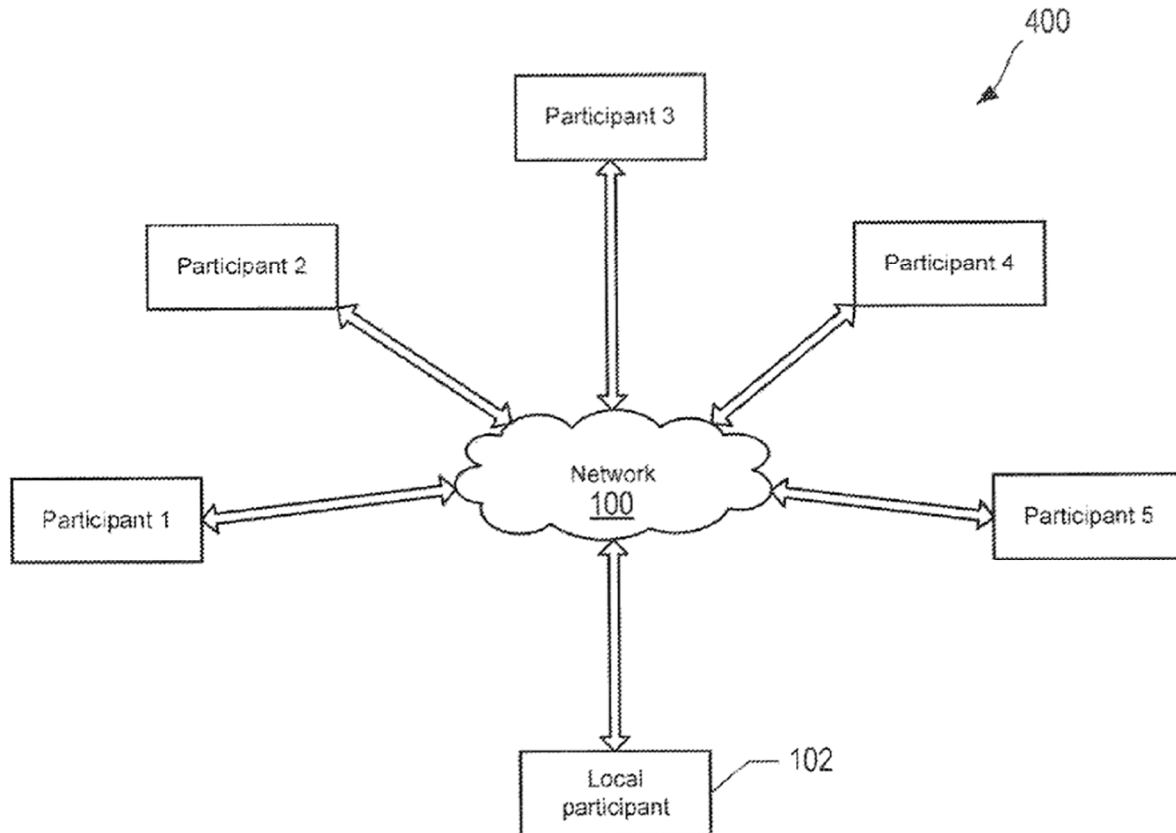
describes that “[t]he *client-side application run by each remote participant* displays the video streams, or a subset of the video streams, . . . and may allow the participant to arrange the viewing areas of the other participants as desired.” *Id.*, 4:5-13 (emphasis added); EX2001, ¶¶63-64.



Id., FIG. 3.

In a further example, as illustrated in FIG. 4 (reproduced below), Baker describes a “peer-to-peer network” in which “[a]ny shared content provided by a participant is sent to or accessed by the other participants.” *Id.*, 4:19-47. For instance, in Baker’s peer-to-peer network, the “local participant 102 has access to *each* of the remote participants computing devices to *download the video and audio*

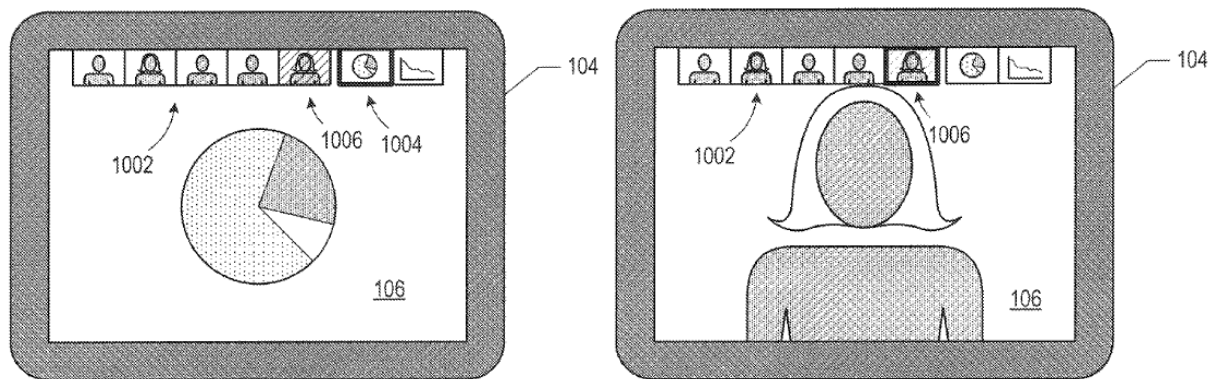
streams generated by the remote participants.” *Id.*, 4:30-34 (emphasis added); EX2001, ¶¶65-66.



Id., FIG. 4.

Building on Baker's disclosure from FIGS. 1-4 regarding the PED 104 receiving the streams for each participant in the conference and then locally determining how to present those streams on the display 106, Baker further describes different ways and arrangements for presenting the streams on the display 106 with regard to FIG. 5 through FIGS. 10A-B. For the example presented in FIGS. 10A-B

(reproduced below), Baker presents a “strip 1002 of reduced size images . . . along a top of the display 106” for the PED 104 such that the participant 102 can, for example, “touch or tap on the highlighted image 1006 of participant 5 to bring up participant 5’s viewing area in the display 106.” *Id.*, 8:55-62; EX2001, ¶67.

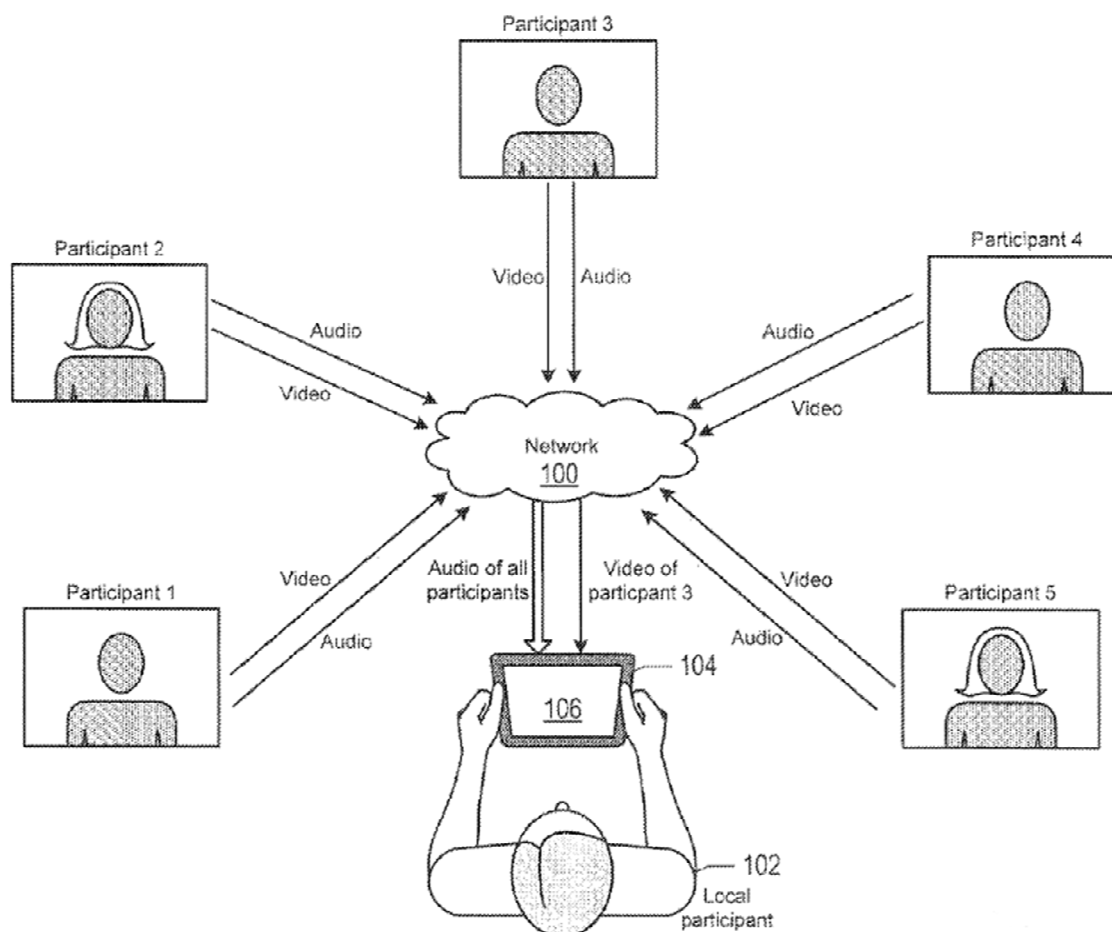


EX1006, FIGS. 10A-B.

As described above with regard to FIGS. 10A-B, the PED 104 receives, locally stores, and processes the streams from the other participants to present the strip 1002 and the image in the viewing area in the display 106. Although Baker’s description regarding FIGS. 10A-B is limited to the user interface features on the display 106, given the disclosure in Baker, a person of ordinary skill in the art (“POSITA”) would have understood from Baker’s description of “bringing up” another participant’s video stream in the viewing area in the display 106 involves the PED 104 *locally* toggling between which of the participant streams are

presented in the viewing area and in the strip 1002 using the participant streams already received and available on the PED 104. EX2001, ¶68.

Baker's FIG. 11 (reproduced below) presents a different embodiment in which less than the complete set of video streams from the other participants are sent to, received, processed, and/or displayed by the PED 104. EX1006, 8:63-9:26, FIG. 11. However, the specific mechanisms and network topology used to provide the features described for Baker's FIG. 11 embodiment are unclear. For example, as shown in FIG. 11, Baker describes that the participant 102 can choose "to have only the video streams of visible remote participants to be sent to the PED 104," but it is unclear as to *how* that local participant election translates into "only the video stream of the participant (i.e. participant 3) [being] received, processed, and presented on the display 106." *Id.* Baker is silent regarding the network components and control processing required for the FIG. 11 embodiment—instead describing high-level prospective features without detailing the underlying components needed to achieve them. EX2001, ¶69.



Id., FIG. 11.

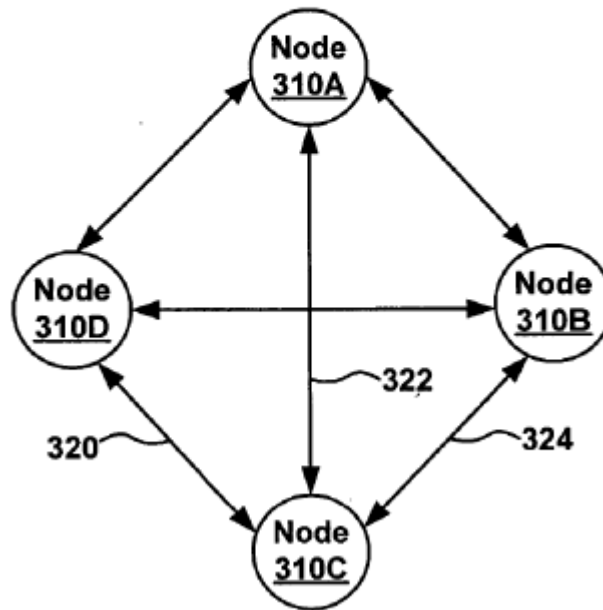
C. APOSTOLOPOULOS (EX1007)

The Apostolopoulos reference is generally directed to providing communication amongst users in a virtual environment and dynamically adapting network topology to adapt to a number of participants in that virtual environment. EX1007, [0002], [0018], [0022]. Instead of transmitting and presenting video feeds of conference participants on endpoints, as in the '099 Patent, Apostolopoulos provides a communication platform for users to participate in a "view dependent

three dimensional virtual environment” that involves “rendering a three dimensional model of the sending collaborator” based on “images [captured] in real-time of a sending collaborator” that are viewed from “the viewpoints of [a] receiving collaborator.” *Id.*, [0026]-[0028], [0055]. Thus, Apostolopoulos refers to a ***three dimensional virtual environment*** in which collaborators interact with three dimensional models of each other within that three dimensional environment. *Id.*, [0031]-[0032]; EX2001, ¶70.

Apostolopoulos describes dynamically transitioning between network topologies to best accommodate participant load in the three dimensional environment. For example, Apostolopoulos describes that a full-mesh topology, as shown in FIG. 3A (reproduced below) can be used with a smaller number of participants. *See id.*, [0053]-[0054]; EX2001, ¶70.

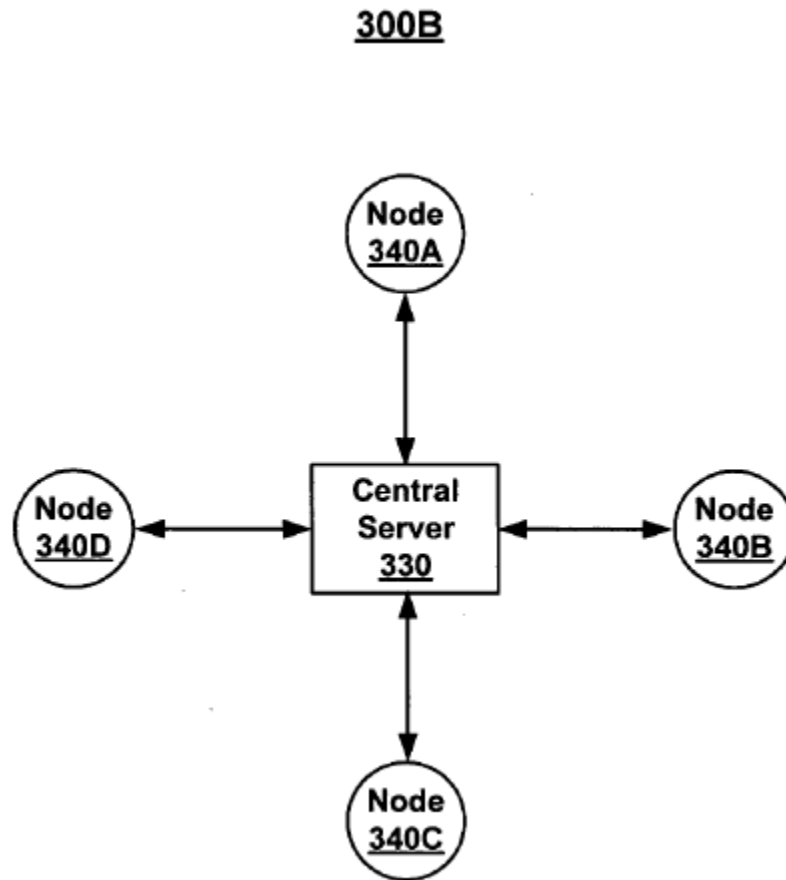
300A



Id., FIG. 3A.

Apostolopoulos also illustrates the use of a star topology, shown in FIG. 3B below, for a larger number of participants. In this embodiment, the three dimensional model generation and rendering techniques using images from nodes (e.g., participants) are offloaded to a central server. *See id.*, [0057]-[0058]. For example, Apostolopoulos uses a “central server” to provide processing capabilities for collaborator nodes to generate such three dimensional renderings in the virtual environment and deploy those renderings across the collaborator nodes. *Id.*, [0023],

[0067], [0088]. The central server can “generate view dependent video streams” for the virtual environment based on a viewpoint of each receiving node in that virtual environment. *Id.*, [0026]-[0028], [0031], [0059]-[0064], [0067]; EX2001, ¶70.

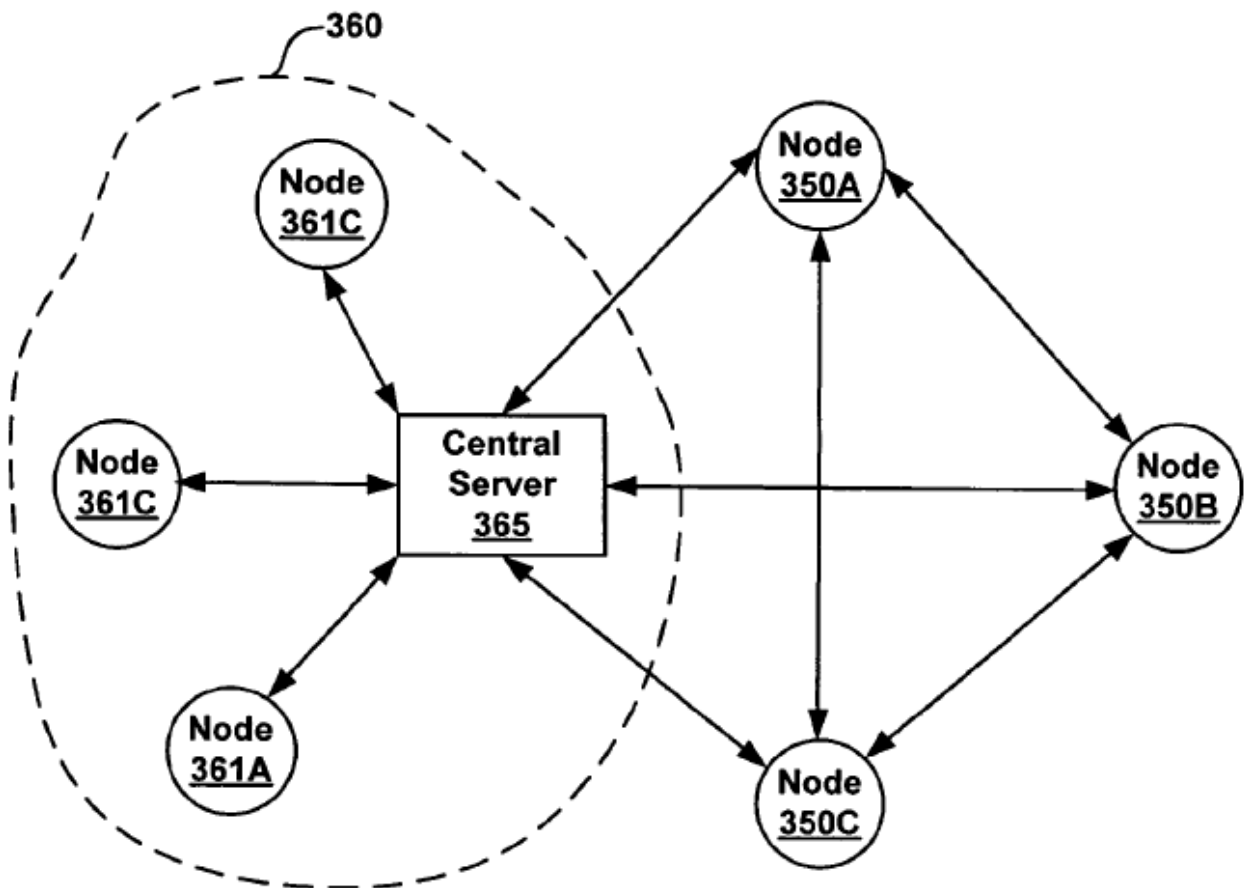


Id., FIG. 3B.

In the embodiment of FIG. 3B, the central server can offload some processing to the collaborator nodes, such as the generation of view dependent 3D models from for each node from viewpoint-independent data streams, described further below, to reduce computational complexity and/or usage at the central server. *Id.*, [0065],

[0066]. Apostolopoulos additionally describes hybrid network topologies in which some nodes are connected in a mesh configuration and other nodes are connected in a star configuration to a central server, as illustrated in FIG. 3C (reproduced below). *Id.*, [0069], [0070]. Apostolopoulos further describes that such hybrid topologies can be used when dynamically transitioning between star topologies and mesh topologies. *Id.*, [0073]-[0076]; EX2001, ¶¶71-72.

300C



Id., FIG. 3C.

With regard to processing, Apostolopoulos contemplates exemplary embodiments in which the central server can receive a video stream from one of the nodes, process that video stream, and then pass the processed stream to other nodes in the environment. *Id.*, [0056]. The central server “performs most or all of the processing on the captured real-time videos of the local collaborator,” which includes “perform[ing] the new view synthesis techniques to render output video image streams from the perspectives of collaborators that are viewing the local collaborator . . . in the N-way collaborative environment.” *Id.*, [0061]. The new view synthesis techniques can “construct, from the various real-time video streams of the sending collaborator taken from the multiple sample perspectives, a new view taken from a new and arbitrary perspective, such as, the perspective of a receiving collaborator in the virtual environment.” *Id.*, [0027]. The central server can further render “a three dimensional model of the sending collaborator, from which the new view of the sending collaborator is generated.” *Id.*, [0028]; EX2001, ¶¶73.

In the Apostolopoulos three dimensional virtual environment, some of the collaborator nodes can perform processing tasks before sending information to the central server to reduce complexity and processing requirements at the central server. *Id.*, [0065]. For example, “viewpoint-independent” collaborator nodes can

perform “viewpoint-independent processing . . . before sending the processed information to the central [server]” such that “the central [server only] performs the viewpoint-dependent processing for each collaborator [node].” *Id.* The viewpoint-independent processing techniques can include “image analysis, background segmentation,” and other pre-processing techniques, which can then be used by the central server “for generating the view dependent video streams.” *Id.*, [0066], [0067]; EX2001, ¶74.

IV. PERSON OF ORDINARY SKILL IN THE ART

For the purposes of this POPR, a person of ordinary skill in the art (“POSITA”) at the time of the claimed invention would have had a degree in computer science, electrical engineering, or a similar field with at least 2-3 years of experience with data networks and video streaming systems or other comparable professional experience. Additional education could substitute for professional experience, or vice versa. EX2001, ¶33.

V. CLAIM CONSTRUCTION

Patent Owner notes that the Petition did not propose any constructions. For the purposes of this POPR, Patent Owner does not propose constructions for any of the terms, but reserves the right to propose constructions at a later point in this proceeding.

VI. THE ASSERTED REFERENCES SIMPLY DO NOT DISCLOSE OR SUGGEST THE SUBJECT MATTER OF THE CHALLENGED CLAIMS

As discussed in greater detail below with regard to the Grounds (*infra* Secs. VII-IX), the Setton, Baker, and Apostolopoulos references, whether taken alone or in any combination, do not disclose or suggest the subject matter of the Challenged Claims—a teleconferencing system with mesh and non-mesh connected endpoints that permits the non-mesh connected endpoints to participate in the teleconference in the same or similar manner as the mesh-connected endpoints. EX2001, ¶¶32, 76-77.

Rather than providing a teleconferencing system according to the Challenged Claims, the aim of Setton is instead to broadcast a conference feed from a group of active sources in a conference to a group of observers (“relay/receivers”) within a peer-to-peer network. Setton describes that for an endpoint to participate in the conference, the endpoint must be designated as an active source in the peer-to-peer network and connected in a mesh arrangement to the other active sources – meaning that Setton requires mesh-connections for endpoints to participate in the conference. *Supra*, Sec. III.A. This contrasts with the '099 Patent, which allows a non-mesh connected endpoint to participate in a conference with mesh-connected endpoints

without requiring the non-mesh connected endpoint to join the mesh topology like in Setton. *Infra*, Sec. VII; EX2001, ¶78.

In contrast to the '099 Patent, Baker is focused on user interfaces and systems for presenting video conferences on portable electronic devices (PEDs) with minimal discussion of network topologies. As a result, Baker does not describe a network topology including mesh and non-mesh endpoints, let alone the subject matter of the Challenged Claims of the '099 Patent. Furthermore, while the Petition relies on Baker primarily for its PED user interface features, Baker's lack of network-level detail for implementing user controls through a PED similarly fail to disclose or suggest the subject matter of the Challenged Claims. *Supra*, Sec. III.B; *infra*, Secs. VII, IX; EX2001, ¶79.

Unlike the '099 Patent, Apostolopoulos is directed to providing a three dimensional virtual environment for users to interact with virtual renderings (e.g., avatars) of other users, and is also directed to an adaptable network topology that can dynamically adjust to varying processing and network loads related to fluctuations in the number of users participating in the virtual environment. *Supra*, Sec. III.C; EX1007, [0037], [0048]. Apostolopoulos is more akin to a three dimensional gaming environment than a teleconferencing system — presenting a user with “view-dependent” renderings of the other users based on their relative

positioning within the three dimensional virtual environment. *Supra*, Sec. III.C. There is no discussion in Apostolopoulos of filmstrips, full size video feeds, or reduced-size video feeds, let alone the subject matter of the Challenged Claims of the '099 Patent permitting non-mesh endpoints to participate in a teleconference in a same or similar manner as mesh-connected endpoints. *Infra*, Sec. IX; EX2001, ¶80.

Simply put, the asserted references are directed to different problems and different solutions than the '099 Patent. As discussed in greater detail below, the Petition does not grapple with or acknowledge these differences, which results in several significant and clear errors in the Grounds.

VII. GROUND 1 FAILS TO ESTABLISH A REASONABLE LIKELIHOOD OF PREVAILING AGAINST ANY CHALLENGED CLAIM

A. SETTON IN VIEW OF BAKER DOES NOT DISCLOSE OR SUGGEST ELEMENTS [3.1.1]-[3.1.2], [10.0]

Contrary to the Petition's allegations (Pet., 20-27; EX1003, ¶¶65-91), Setton in view of Baker does not disclose or suggest at least Elements [3.1.1]-[3.1.2] or [10.0]. EX2001, ¶¶81-87, 91-98.

As an initial matter, the Petition's Ground 1 is deficient because it fails to consider Elements [3.1.1]-[3.1.2] "as a whole," which is required for a proper obviousness analysis. *See Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir.

2004) (“section 103 specifically requires consideration of the claimed invention ‘as a whole’”). For example, Ground 1 of the Petition splits the “plurality of endpoints” limitation (reproduced below) into Element [3.1.1] (blue text) and Element [3.1.2] (green text), and improperly analyzes them separately and out of context from each other. *See* Pet., 20-27. This bifurcated analysis results in Petition ignoring that the “plurality of endpoints,” which includes non-mesh and mesh-connected endpoints (Element [3.1.1]), is the subject of Element [3.1.2]. *See*, Pet. 23-27; EX2001, ¶93. As a result, the Petition fails to analyze the actual scope of Element [3.1.2].

Omitted in
Petition

a plurality of endpoints, at least some of which are connected in a mesh configuration and at least one of which is connected in a non-mesh configuration to a selected one of the mesh-connected endpoints, and which are configured such that a film strip with frames containing reduced-size video feeds from the conference participants is displayed at the mesh endpoints;

Element [3.1.1] (blue text), Element [3.1.2] (green highlighting).

The plain language of Elements [3.1.1]-[3.1.2] requires that “a *plurality of endpoints* . . . are configured such that a film strip with frames containing *reduced-size video feeds from the conference participants* is displayed *at the mesh endpoints*,” where the “plurality of endpoints” include “mesh-connected endpoints”

and “at least one . . . non-mesh connected endpoint” (emphasis added). Accordingly, the clause “configured such that” applies to both the “mesh-connected endpoints” and the “non-mesh connected endpoint”—meaning that, like the mesh-connected endpoints, the non-mesh connected endpoint is “configured such that a film strip with frames containing reduced-size video feeds from the conference participants is displayed at the mesh endpoints.” Elements [3.1.1]-[3.1.2]. As a result, the plain language of Elements [3.1.1]-[3.1.2] requires the “mesh-connected endpoints” and the “non-mesh connected endpoint” to transmit “video feeds” that are included in the “film strip . . . displayed at the mesh endpoints.” *Id.*; EX2001, ¶94.

Additionally, “the conference participants” encompasses conference participants at “mesh-connected endpoints” and the “non-mesh connected endpoint.” EX2001, ¶94; EX1001, 5:13-17. For example, claim 3 refers to “the conference participants” (Element [3.1.2]) and later refers to “the ***mesh-connected*** conference participants” (Element [3.3], emphasis added)—showing that the scope of “the conference participants” is broader than just “mesh-connected endpoints.” Elements [3.1.1]-[3.1.2]; *see Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014); *In re Downing*, 754 Fed.Appx. 988, 996 (Fed. Cir. 2018).

The plain language of Elements [3.1.1]-[3.1.2] is also consistent with and supported by the '099 Patent's stated objective to permit non-mesh connected

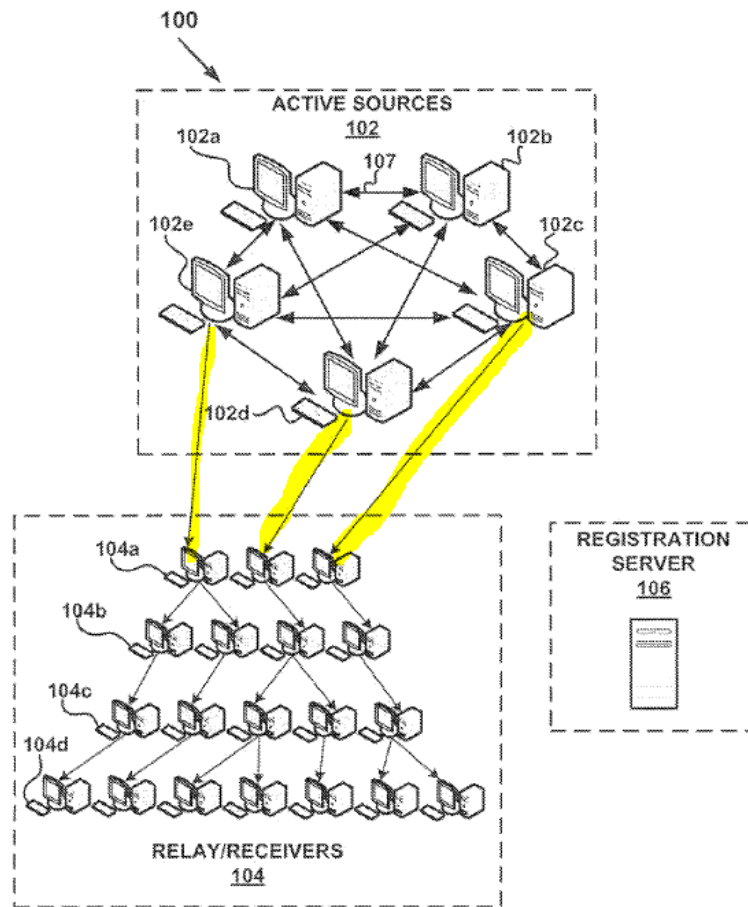
endpoints to participate in teleconferences in the same or similar manner as mesh-connected conference participants. EX1001, 17:47-49; EX2001, ¶94.

However, the Petition fails to appreciate this aspect of the plain language of Elements [3.1.1]-[3.1.2] when taken in proper context as discussed above. For example, the Petition alleges that Elements [3.1.1]-[3.1.2] are satisfied by “combin[ing] Baker’s miniaturized images with Setton’s videoconferencing system,” which the Petition alleges would result in Setton’s active sources and relay/receivers displaying “Setton’s aggregated video streams of the teleconference participants . . . as a strip of miniaturized images.” Pet., 26; *see id.*, 13. When the Petition refers to Setton’s “teleconference participants,” it refers to the mesh-connected active sources. *Id.*, 13 (describing that “[t]he active sources 102 are connected in a ‘**mesh-based**’ configuration and used by teleconference participants to ‘generate content (e.g., a video stream, an audio stream, etc.)’ (emphasis in original)).

Accordingly, the Petition does not identify how Elements [3.1.1]-[3.1.2] would be met by the resulting combination of Setton and Baker. *See*, Pet. 20-27. The Petition does not identify or even allege that the combination of Setton and Baker would include non-mesh connected endpoints transmitting “video feeds,” let alone that these non-mesh endpoint “video feeds” would be displayed at “mesh

endpoints” as part of “a film strip with frames containing reduced-size video feeds from the conference participants.” let alone that “video feeds” transmitted from non-mesh connected endpoints would be “displayed at the mesh endpoints” as part of “a film strip with frames containing reduced-size video feeds from the conference participants.” Elements [3.1.1]-[3.1.2]. At most, the Petition alleges with regard to Element [3.4] that Setton’s relay/receivers could be modified to transmit requests for full size video feeds, which Patent Owner contests below (*infra*, Sec. VII.B), but never alleges that Setton’s relay/receivers would have been modified to transmit “video feeds” for display in “a film strip” on Setton’s active sources. EX2001, ¶¶95-98.

Furthermore, such a modification would fly in the face of Setton’s express teaching that its relay/receivers 104 “do **not** generate content” and instead receive the content generated by the active sources 102. *See* EX1005, [0014], [0016], [0018]-[0019] (emphasis added). As indicated by the unidirectional arrows from the active sources 102 to the relay/receivers 104 (highlighted in yellow), the relay/receivers 104 are passive observers of the teleconference among the active sources 102. *Id.*, [0016]-[0019], [0028] (describing the active sources as “the teleconference speakers” and the relay/receivers as “[l]isteners of the teleconference”).



Id., FIG. 1 (annotations added).

For at least the foregoing reasons, Patent Owner submits that Ground 1 fails and should not be instituted because the Petition has not carried its burden with regard to Elements [3.1.1]-[3.1.2]. Additionally, for at least the same reasons, Ground 1 also fails with regard to Element [10.0], which the Petition did not address separately from Elements [3.1.1]-[3.1.2]. Pet., 37.

B. SETTON IN VIEW OF BAKER DOES NOT DISCLOSE OR SUGGEST ELEMENTS [3.4], [10.3]

Contrary to the Petition's allegations (Pet., 33-37; EX1003, ¶¶119-133), Setton in view of Baker does not disclose or suggest Elements [3.4] or [10.3]. EX2001, ¶¶81-87.

The Petition's analysis of Element [3.4] is insufficient to carry its burden to demonstrate obviousness because it is rooted in impermissible hindsight—using the claims as a roadmap and relying on conclusory reasoning without considering the teachings of the references “as a whole.” *See Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987) (requiring “a prior patent must be considered in its entirety, i.e., as a whole, including portions that would lead away from the invention in suit”); *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1332 (Fed. Cir. 2016) (explicitly applying Panduit's requirements to the PTAB and instructing that the PTAB “must consider the prior art ‘in its entirety, i.e., as a whole’”); *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016) (reiterating the Petitioner's “obligation to explain all material facts relating to a motivation to combine”); *Ruiz*, 357 F.3d at 1275 (Fed. Cir. 2004) (describing that impermissible “hindsight reasoning” includes “using the invention as a roadmap to find its prior art components,” which “discount[s] the value of combining various existing features

or principles in a new way to achieve a new result – often the very definition of invention.”).

The Petition makes several unfounded conclusory leaps from the teachings of Setton and Baker to form a combination that allegedly renders Element [3.4] obvious. However, these leaps are not supported by the actual teachings of Setton or Baker, and the resulting combination disrupts the core operation of Setton's conference broadcast network topology, which the Petition does not appear to appreciate, acknowledge, or address. EX2001, ¶¶104-105. Instead, the Petition treats the prior art as a grab bag of features that can be cherry-picked and combined at will—allegedly rendering any combination of features as obvious because their component parts may have been separately known. Pet., 34-37. This is not sufficient to sustain an assertion of obviousness and amounts to impermissible hindsight.

In particular, the Petition proposes modifying Setton's network topology to permit relay/receivers to request, and for active sources to serve, individualized video feeds (e.g., by requesting specific full size video feeds) to the relay/receivers based on Baker's disclosure. Pet., 34-35. However, the Petition's analysis ignores that this proposed modification would have increased the processing/serving burden for Setton's active sources, which would then have to assemble and serve multiple different video streams to individual relay/receivers instead of assembling a single

video stream of the conference that is for broadcast to all relay/receivers. EX2001, ¶¶105. This increased processing/serving burden on Setton's active sources would have competed with and added delays to the active source's transmission and receipt of video feeds with the other active sources participating in the conference. *Id.*, ¶¶105. This is contrary to Setton's express network configuration 100, which is specifically designed to minimize network delay between active sources ("teleconference speakers") so that the active sources "do *not* suffer from unacceptable delay issues." EX1005, [0030] (emphasis added); *supra* Sec. III.A.

The Petition and Reddy Declaration are silent on these issues, and do not address the impacts of their suggested modification to the operation of Setton. Pet., 33-37; EX1003, ¶¶119-133. However, when viewing Setton's teachings as a whole, a POSITA would not have been prompted to modify Setton as proposed in the Petition and Reddy Declaration because doing so would have frustrated the express goals of Setton's network configuration 100. EX2001, ¶¶105-107.

Furthermore, the Petition overstates certain teachings of Baker that purportedly would have prompted the modification of Setton. Pet., 34-36. For example, the Petition indicates that a POSITA would have been prompted to modify Setton's relay/receivers to request full size video feeds based on user selection of reduced-size videos presented in a user interface using the teachings of Baker's with

regard to FIGS. 10A-B. *Id.*, 34-35. However, as discussed above (*supra*, Sec. III.B), Baker's FIGS. 10A-B teaches that a PED receives and locally stores the streams from all of the other participants, and then locally selects which streams to present in the user interface based on user input. EX1006, 2:43-46 (the "video and audio *streams* generated by *each of the remote participants* are sent to the network 100 and *received by the PED 104*" (emphasis added)), 3:55-4:13, 4:30-34, 4:48-55, 8:55-62, FIGS. 1-4, 10A-B; EX2001, ¶¶105-107. The Petition also points to Baker's discussion about speaking participants sending video frames with higher bit-rate/quality and to Baker's user interface features in FIGS. 10A-B. Yet, neither of these aspects disclose or suggest transmitting requests for full size video feeds in response to user selection of reduced-size videos in a filmstrip. Pet., 35-36; EX2001, ¶¶105-107.

Accordingly, Baker does not even provide a teaching or suggestion that would support the Petition's purported modification of Setton. EX2001, ¶¶105-107. When the teachings of Setton and Baker are taken as a whole, a POSITA would not have arrived at the resulting modification of Setton that is suggested in the Petition. EX2001, ¶¶105-107. The Petition's modification of Setton is based on pure hindsight and conclusory reasoning that results from impermissibly using the claims

as a roadmap to formulate Ground 1. As a result, the Petition has not carried its burden to demonstrate obviousness with regard to Element [3.4]

For at least the foregoing reasons, Patent Owner submits that Ground 1 fails and should not be instituted due to, at least, the Petition's deficiencies with regard to Element [3.4]. Additionally, for at least the same reasons, the Ground 1 also fails with regard to Element [10.3], which the Petition addresses using the same flawed analysis regarding the combination of Setton and Baker as for Element [3.4]. Pet., 38-39.

VIII. GROUND 2 FAILS FOR AT LEAST THE SAME REASONS AS GROUND 1

The Petition's Ground 2 addresses only claims that depend from independent claim 3 and also relies on the combination of Setton and Baker (in addition to a third reference, Wong). Ground 2 fails to carry its burden for at least the same reasons as Ground 1. *Supra*, Sec. VII. Accordingly, Ground 2 should also not be instituted.

**IX. GROUND 3 FAILS TO ESTABLISH A REASONABLE
LIKELIHOOD OF PREVAILING AGAINST ANY CHALLENGED
CLAIM**

**C. APOSTOLOPOULOS IN VIEW OF BAKER DOES NOT
DISCLOSE OR SUGGEST ELEMENTS [3.1.1]-[3.1.2], [10.0]**

Contrary to the Petition's allegations (Pet., 54-60; EX1003, ¶¶208-234), Apostolopoulos in view of Baker does not disclose or suggest Elements [3.1.1]-[3.1.2] or [10.0]. EX2001, ¶¶88-90, 99-102.

The Petition proposes two modifications to Apostolopoulos that, like its proposed modification to Setton in Ground 1 (*supra*, Sec. VII), are rooted in hindsight and fail to consider the teachings of the references as a whole.

First, with regard to Element [3.1.1], the Petition asserts that a POSITA would have been prompted to modify Apostolopoulos's central server 365 in the hybrid topology 300C depicted in FIG. 3C to be a "full-mesh node" simply because (a) the central server 365 and nodes 350 both generate data streams, and (b) implementing server functionality on nodes was known in the art. Pet., 56-57. Like the deficiencies above in Ground 1, the Petition again fails to consider the teachings of Apostolopoulos as a whole or how these modifications would impact the intended operation of Apostolopoulos. EX2001, ¶100.

As noted above (*supra*, Sec. III.C), Apostolopoulos is directed to providing a three dimensional virtual environment for users to interact with virtual renderings

(e.g., avatars) of other users, and to an adaptable network topology that dynamically adjusts to varying processing and network loads related to fluctuations in the number of users participating in the virtual environment. *See* EX1007, [0002], [0006], [0018]-[0021], [0026]-[0028], [0037], [0048], [0065]-[0067]. Apostolopoulos's central server 365 is key to this infrastructure by offloading processing of data streams from individual nodes to generate view dependent three dimensional models when the number of participating nodes increases. *Id.*, [0057]-[0058], [0065]-[0067]. The Petition does not address or consider whether a "full-mesh node" that is participating in Apostolopoulos's three dimensional virtual environment would be able to simultaneously also serve the same function of the central server 365 to offload three dimensional model generation from other nodes as the processing complexity increases (as the number of participating nodes increases). EX2001, ¶100. Additionally, the Petition does not address why a POSITA would have been motivated to move away from Apostolopoulos's solution, which is specifically configured for dynamically adjusting network topologies and the processing location for three dimensional model generation (i.e., offloading three dimensional model generation to the central server 365) as the processing and network transmission complexity changes due to fluctuations in the number of users participating in the virtual environment at a given time. *Id.*

Moreover, the Petition's suggestion that a POSITA would have modified Apostolopoulos's network topology based on the teachings of Baker, which provides scant details about its own network topology, amounts to pure hindsight. The Petition ignores and never addresses that Apostolopoulos is directed to providing a three dimensional virtual environment. Pet., 54-63. However, when considering this critical aspect of Apostolopoulos's solution, a POSITA would have readily understood and appreciated that the processing required for generating and serving three dimensional models for Apostolopoulos's virtual environment is quite different from the processing that would be required for video feed distribution in Baker. EX2001, ¶102. Given these differences, a POSITA would readily understood and appreciated that the computational architectures and network features from Baker are not well-suited for use Apostolopoulos's virtual environment, and may instead degrade the performance of that virtual environment. *Id.* As a result, a POSITA considering the teachings of Apostolopoulos and Baker in their entirety would have found them to be non-analogous and would not have been motivated to apply features from Baker to Apostolopoulos's virtual environment. *Id.*

Second, the Petition's allegation that a POSITA would have been prompted to modify Apostolopoulos to incorporate the film strip from Baker, again,

completely ignores that Apostolopoulos is providing a three dimensional virtual environment more akin to a three dimensional gaming environment than a teleconferencing system. Pet., 59-60. For example, Apostolopoulos describes that the generated “3D models” are used to “creat[e] avatars representing the sending collaborator,” which permits for “[r]enderings of a collaborator’s avatar from the perspective of other collaborators [to be] generated . . . and sent to receiving collaborators”—providing virtual interactions among participating nodes in the three dimensional virtual environment that are “highly interactive.” EX1007, [0028]. The Petition does not address how or why a POSITA would have been prompted to incorporate Baker’s film strip into Apostolopoulos’s three dimensional virtual environment. Pet., 59. The Petition’s only explanation for the modification, still ignoring Apostolopoulos 3D virtual environment, is that a film strip style user interface “was common in videoconferencing systems.” *Id.* This conclusory assertion amounts to impermissible hindsight. When viewing the disclosures of Apostolopoulos and Baker in their entirety, however, a POSITA would not have incorporated the film strip from Baker into Apostolopoulos’s three dimensional virtual environment because the film strip would detract from and be inconsistent with Apostolopoulos’s aim to permit users to interact with each other in a three

dimensional virtual environment through view dependent rendered avatars.
EX2001, ¶¶100-102.

Furthermore, Ground 3 suffers from the same issues with regard to the Petition failing to appreciate or apply the plain meaning of Elements [3.1.1]-[3.1.2] as discussed above with regard to Ground 1. *Supra*, VII.A. In particular, the Petition does not identify any teachings of Apostolopoulos or Baker demonstrating that “mesh-connected endpoints” and the “non-mesh connected endpoint” transmit “video feeds” that are included in the “film strip . . . displayed at the mesh endpoints,” as required by Elements [3.1.1]-[3.1.2]. *See*, Pet., 59-60.

For at least the foregoing reasons, Patent Owner submits that Ground 3 fails and should not be instituted because the Petition has not carried its burden with regard to Elements [3.1.1]-[3.1.2]. Additionally, for at least the same reasons, the Ground 3 also fails with regard to Element [10.0], which the Petition did not address separately from Elements [3.1.1]-[3.1.2]. Pet., 69.

**D. APOSTOLOPOULOS IN VIEW OF BAKER DOES NOT
DISCLOSE OR SUGGEST ELEMENTS [3.4], [10.3]**

Contrary to the Petition's allegations (Pet., 66-68; EX1003, ¶¶259-266), Apostolopoulos in view of Baker does not disclose or suggest Elements [3.4] or [10.3]. EX2001, ¶¶88-90.

For the same reasons discussed above with regard to Elements [3.1.1]-[3.1.2], the Petition's assertions that a POSITA would have been prompted to modify Apostolopoulos based on Baker are conclusory, and completely ignore Apostolopoulos's three dimensional virtual environment, and fail to address how or why a POSITA would have incorporated Baker's film strip user interface features into Apostolopoulos's three dimensional virtual environment. Pet., 66-68; *supra*, IX.A. When viewing the disclosures of Apostolopoulos and Baker in their entirety, however, a POSITA would not have incorporated the film strip user interface from Baker into Apostolopoulos's three dimensional virtual environment because the film strip would detract from and be inconsistent with Apostolopoulos's aim to permit users to interact with each other in a three dimensional virtual environment through view dependent rendered avatars. EX2001, ¶¶88-90, 108.

Furthermore, for the same reasons articulated above with regard to Ground 1, the Petition overstates the teachings of Baker that purportedly would have prompted the modification of Apostolopoulos. Pet., 66-68; *supra*, VII.B. For example, the Petition indicates that a POSITA would have been prompted to modify Apostolopoulos to request a full size video from user selection of reduced-size video feed presented in a user interface based on Baker's teachings with regard to FIG. 10A-B. Pet., 66-67. However, as discussed above (*supra*, Secs. III.B, VII.B),

Baker's FIG. 10A-B instead teach that a PED receives and locally stores the streams from all the other participants, and then locally selects which streams to present in the user interface based on user input. EX1006, 2:43-46, 3:55-4:13, 4:30-34, 4:48-55, 8:55-62, FIGS. 1-4, 10A-B; EX2001, ¶¶88-90, 108. The Petition also relies on in Baker's speaking participants sending video frames with higher bit-rate/quality and on Baker's user interface benefits in FIGS. 10A-B, neither of which disclose or suggest transmitting requests for full size video feeds responsive to selection of reduced-size videos in a filmstrip. Pet., 66-67; EX2001, ¶¶88-90, 108. Accordingly, Baker does not even provide a teaching or suggestion that would support the Petition's purported modification of Apostolopoulos. EX2001, ¶¶88-90, 108.

For at least the foregoing reasons, Patent Owner submits that Ground 3 fails and should not be instituted due to, at least, the Petition's deficiencies with regard to Element [3.4]. Additionally, for at least the same reasons, the Ground 3 also fails with regard to Element [10.3], which the Petition addresses using the same teachings from and allegations regarding the combination of Apostolopoulos and Baker as with Element [3.4]. Pet., 69-71.

X. GROUND 4 FAILS FOR AT LEAST THE SAME REASONS AS GROUND 3

The Petition's Ground 4, which addresses only claims that depend from independent claim 3 and which also relies on the combination of Apostolopoulos

and Baker (in addition to a third reference, Wong), fails to carry its burden for at least the same reasons as Ground 3. *Supra*, Sec. VII. Accordingly, Ground 4 should also not be instituted.

XI. THE PETITION SHOULD BE DENIED INSTITUTION UNDER *FINTIV*

The Petition should be discretionarily denied institution under 35 U.S.C. § 314 and the *Fintiv* standard. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential). In particular, trial in the corresponding district court litigation between the Patent Owner and Petitioner is set to occur over three months before a final written decision would be reached by the Board in this IPR. While the Petition has attempted to circumvent a denial under *Fintiv* by entering a stipulation, the Petition's analysis is flawed and even mischaracterizes the issues. Discretionary denial is warranted under § 314 based on the facts and issues related to this IPR as outlined below.

A. *FINTIV* FACTOR 1 - WHETHER EVIDENCE EXISTS THAT A STAY MAY BE GRANTED IF A PROCEEDING IS INSTITUTED.

This factor favors denying institution because Petitioner has not moved for a stay of the litigation and makes no representation to the Board that it will even move for a stay if institution is granted. Pet., 78. Instead, the Petition attempts to effectively nullify this factor as part of a *Fintiv* analysis by pointing to previous

Board decisions indicating it would be improper for the Board speculate about the outcome of a stay. *Id.* However, the Petitioner's line of reasoning presumes that a petitioner has or will move for a stay in the corresponding litigation. Notably, the Petitioner in this case had an opportunity in the Petition to inform the Board that it will move for a stay upon institution, but declined to do so. Accordingly, without any indication from the Petitioner that it will even move for a stay, this factor should favor denying institution.

B. *FINTIV* FACTOR 2 - PROXIMITY OF THE COURT'S TRIAL DATE TO THE BOARD'S PROJECTED STATUTORY DEADLINE FOR A FINAL WRITTEN DECISION.

This factor favors denying institution as well because the district court trial date is scheduled to occur *over three months before* the projected statutory deadline for the Board's final written decision in this IPR. For example, district court recently maintained the original trial date of February 10, 2025, in a Second Amended Docket Control Order issued on November 27, 2023. EX2002, 1; EX1022, 1. The projected statutory deadline for the Board's final written decision would be May 29, 2025 (adding 15 months to the POPR filing deadline of Feb. 29, 2024). Accordingly, the district court trial is scheduled to occur approximately *three and a half months before* the final written decision would be reached by the Board.

Further, Petitioner's argument that multiple district court cases scheduled for Jury Selection on the same date before Judge Gilstrap, who is presiding over the corresponding district court litigation, somehow indicates that the trial date will be extended is a red herring. Pet., 78-79. Judge Gilstrap routinely manages many proceedings, even with contemporaneous dates. *See* EX2003, 3 ("Andrea Brunson, Gilstrap's assistant, defended the practice of setting multiple cases on the same date to prevent judges who are in demand from facing empty calendars if parties settle on the eve of trial."). Furthermore, the number of cases before Judge Gilstrap with Jury Selection scheduled for February 10, 2025 (trial date for the corresponding litigation) has already decreased from sixteen around the time the Petition was filed to nine. *Compare* EX2004 *with* EX1023. This is a reduction of nearly 44% of cases with Jury Selection scheduled over approximately a three month period.

Furthermore, the Petitioner additionally ignores the guidance on *Fintiv* Factor 2 in Director Vidal's memo providing guidance on discretionary denials (EX1024), which the Petitioner even raised as an exhibit. Pet., 80. In particular, Director Vidal notes that with regard to *Fintiv* Factor 2, "the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides." EX1024, 3. Director Vidal's guidance does not indicate that the

number of Jury Selections on the date of trial is a factor that the Board will consider, in contrast. *Id.* The most recent statistic on median time to trial from filing for civil proceedings in EDTX is 21.4 months. EX2005, 5. With the district court complaint having been filed in May 2023, the trial date for the corresponding litigation (Feb. 10, 2025) is right within the 21.4 month median time to trial statistic for the district. EX1021.

Accordingly, this factor strongly favors denial because the district court litigation will far outpace this IPR.

C. *FINTIV* FACTOR 3 - INVESTMENT IN THE PARALLEL PROCEEDING

Petitioner causally characterizes the litigation to be in early stages, but ignores the significant investment of resources required. For example, Petitioner has raised over 35 separate art references and several other invalidity contentions in the litigation, against which Patent Owner has invested significant resources to investigate and address. EX2006. Additionally, with trial scheduled to take place in less than a year, both parties have invested significant resources preparing for the upcoming litigation and trial schedule. EX2002. Accordingly, this factor at least modestly favors of denial.

**D. *FINTIV* FACTOR 4 - OVERLAP BETWEEN ISSUES RAISED
IN THE PETITION AND IN THE PARALLEL PROCEEDING.**

Petitioner's stipulation is illusory.

Significant overlap exists between the Petition and the litigation, since the same issues of art-based invalidity are present. The litigation art challenges implicate the same issues of POSITA's knowledge, interpretation, and appreciation of the state of the art as the challenges in the IPR, creating duplicate efforts.

EX2006.

Additionally, the Petitioner's severely-limited stipulation is illusory and will do little to reduce overlapping invalidity proceedings between the district court and the Board, even if there is institution. Pet., 79-80. In particular, the Petitioner only stipulates to not raise only the "combination of references on which trial is instituted for the claims." *Id.*, 79. Given the expansive invalidity references and combinations raised in the Petition, including combinations involving the asserted references combined with other references, there would be little-to-no reduction in the grounds raised at the district court, yet many overlapping issues would persist.

EX2006.

Petitioner's election to enter a highly limited stipulation instead of a more robust *Sotera*-style stipulation favors denial of institution because it will lead to significant overlapping issues between the district court and the Board.

E. *FINTIV* FACTOR 5 - WHETHER PETITIONER IS DEFENDANT

This factor is neutral as the Petitioner is a defendant in the litigation.

F. *FINTIV* FACTOR 6 - OTHER CIRCUMSTANCES THAT IMPACT THE BOARD'S EXERCISE OF DISCRETION, INCLUDING THE MERITS.

Contrary to the Petition's assertions, the Petition does not present compelling merits, as demonstrated by the myriad of deficiencies in the Grounds 1-4 identified above. *Supra*, Secs. VI-X. Accordingly, there are no compelling merits presented in the Petition that would warrant overriding the strong basis for discretionary denial under Factors 1-5. For at least these reasons, Factor 6 weighs strongly in favor of denial.

Accordingly, discretionary denial under § 314 is warranted. Institution would not serve as a true alternative here, but rather another forum having strong potential for conflicting decisions.

XII. CONCLUSION

For at least the reasons articulated above, the Petition fails to establish a reasonable likelihood of success of prevailing on any of its obviousness challenges against claims 3-6 and 10 of the '099 Patent. Accordingly, the Board should deny institution of the Petition in IPR2024-00194.

IPR2024-00194 (Patent 9,204,099)
Patent Owner's Preliminary Response

Patent Owner does not concede any issues not addressed or raised in this Preliminary Response.

Respectfully submitted,

Date: Feb. 29, 2024

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing
PATENT OWNER'S PRELIMINARY RESPONSE TO PETITION contains
10,078 words, which is less than the 14,000 word limit, as determined by the word
count feature of the word-processing system used to prepare this paper.

/Christopher C. Hoff, Reg. No. 67,738/
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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on February 29, 2024, I caused a true and correct copy of the foregoing PATENT OWNER VIDEO SOLUTIONS PTE. LTD. PRELIMINARY RESPONSE TO PETITION, together with all exhibits filed therewith, to be served via e-mail on the following counsel of record for Petitioners:

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