

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MICROSOFT CORPORATION

Petitioner

v.

UNILOC 2017 LLC

Patent Owner

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IPR2019-01187

PATENT 6,473,114

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**PATENT OWNER RESPONSE**

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**EXHIBIT LIST**

<b>Exhibit</b>	<b>Description</b>
2001	Claim Construction Memorandum and Order, <i>Uniloc 2017 LLC v. Google LLC</i> , Case No. 2:18-CV-00491-JRG-RSP, Dkt. 182 (E.D. Tex. Feb. 5, 2020) (adopted at Dkt. 219, Mar. 25, 2020)

## **I. INTRODUCTION**

Uniloc 2017 LLC (“Uniloc” or “Patent Owner”) submits this Patent Owner Response to the Petition for *Inter Partes* Review (“Pet.” or “Petition”) of United States Patent No. 6,473,114 (“the ’114 Patent” or “Ex. 1001”) filed by Microsoft Corporation (“Petitioner”). The instant Petition is defective for at least the reasons set forth herein. Accordingly, the Board should determine that Petitioner has failed to meet its burden to show unpatentability of any challenged claim.

## **II. THE ’114 PATENT**

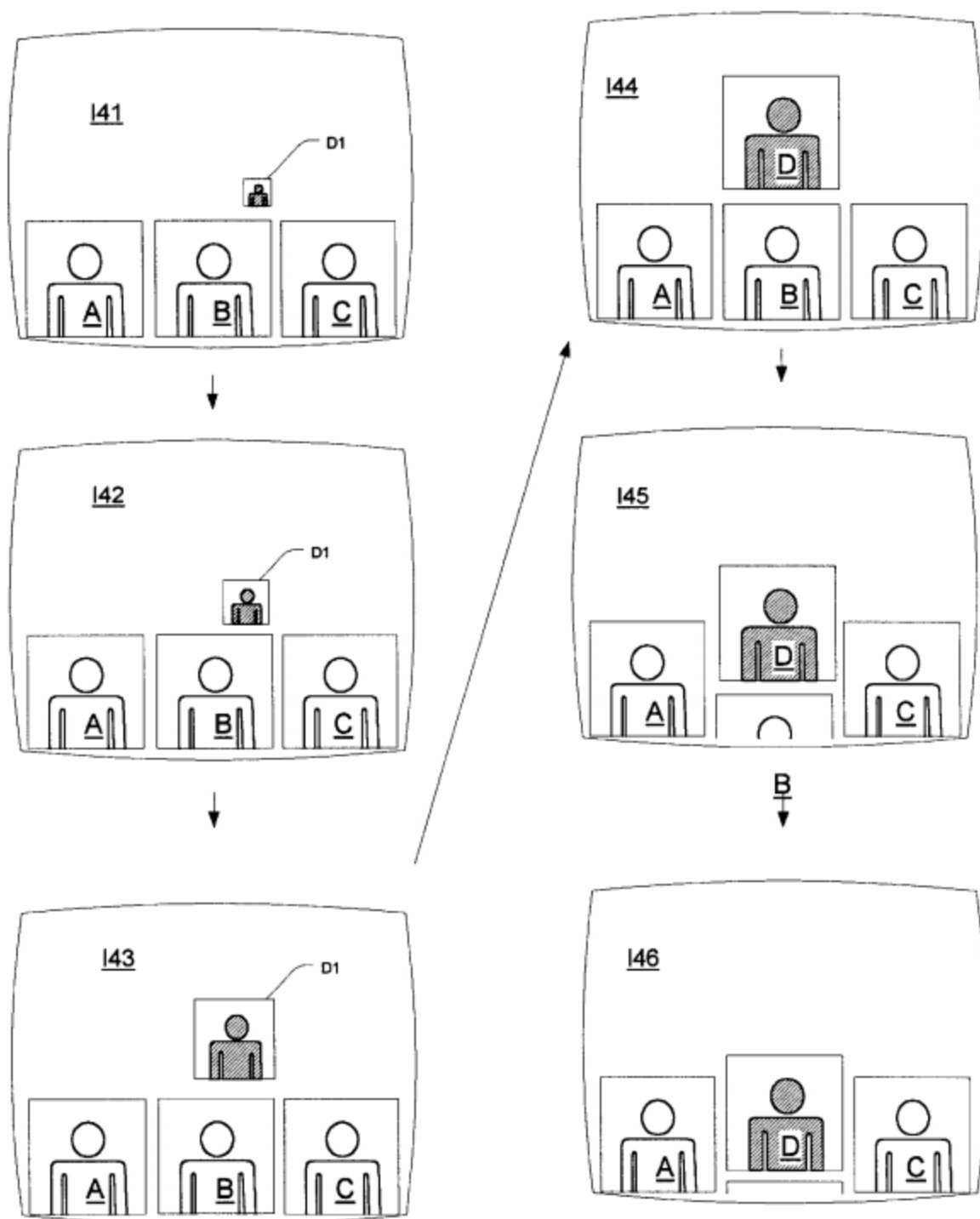
The ’114 patent is titled “Method and system for indicating change of speaker in a videoconference application.” The ’114 patent issued October 29, 2002, from U.S. Patent Application No. 09/550,607 filed April 14, 2000.

The inventors of the ’114 patent observed that at the time of the invention, videoconferencing systems were popular and widespread. And one of the most important elements of a videoconferencing system is the display of active participants. To allow users to see each other, camera images are selectively displayed on each display. A typical display may show the field of view one or more cameras. If the conference includes many participants, the display of all the participants at all times becomes impossible so such systems select some subset of the participants based on criteria. Ex. 1001, 1:8-45. For example, the displays may show the last three speakers that spoke. When one of those has been dormant for a

while, his/her image will be replaced by another who has spoken more recently. Sudden changes in the images of faces being displayed, however, may not be very conspicuous and might not be noticed, or can be abrupt and, therefore, disconcerting. *Id.*, 1:48-58.

According to the disclosure of the '114 Patent, there is provided a method and system for a videoconferencing system where a typical display used in videoconferencing environment shows a subset of a larger group of participants, the subset being characterized by some selection criterion. *Id.*, 1:64–66. For example, the three that have spoken the most up until the present moment may be maintained on the screen. “*Id.*, 1:66–2:1. “Because such criteria may be dynamic, that is, they may change over time, the video image of one participant must be replaced with that of another on occasion.” *Id.*, 3:8–11.

Figure 6 of the '114 patent is reproduced below.



**Fig. 6**

B



In this example embodiment, a candidate speaker appears on the display at D1 when the candidate speaks momentarily as shown in frame 141. If the candidate speaker D1 continues to speak, the candidate continues to grow as shown in frame 142. If the candidate speaker D1 stops speaking, his/her image shrinks and disappears. If the candidate speaker continues speaking beyond a predefined interval, the candidate speaker image D1 grows to the size of the other speakers A, B, and C and the animation sequence of FIG. 2, beginning at frame 144 is performed. Thus, the candidate now pushes the old speaker B out of the frame as illustrated in frames 144—146. *Id.*, 4:7–18. Various other alternative animations can be employed.

Independent claim 1 recites:

1. A method of indicating a change of speaker in a videoconferencing system, comprising the steps of:
  - displaying images of current conference participants;
  - displaying an image of a new conference participant responsively to an indication of speech uttered by said new conference participant;
  - removing said image of said new conference participant when said speech is of a first duration;

replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of [a duration]<sup>1</sup> longer than said first duration.

Ex. 1001, claim 1.

### III. RELATED PROCEEDINGS

The following proceedings concerning the '114 patent.

Case Name	Case Number	Court	Filing Date
<i>Uniloc 2017 LLC et al v. Google LLC</i>	2-18-cv-00491	TXED	Nov. 17, 2018
<i>Uniloc 2017 LLC v. Microsoft Corporation</i>	8-19-cv-00196	CDCA	Jan. 31, 2019

The district court in the *Google* -491 case cited above (“Google Litigation”) has issued a Claim Construction Memorandum and Order interpreting terms of the '114 patent. Ex. 2001, Claim Construction Memorandum and Order, *Uniloc 2017 LLC v. Google LLC*, Case No. 2:18-CV-00491-JRG-RSP, Dkt. 182 (E.D. Tex. Feb. 5, 2020) (adopted at Dkt. 219, Mar. 25, 2020) (“Google Claim Construction Order”).

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<sup>1</sup> Although “a-duration” is hyphenated in the patent as published, this typographical error is omitted in quotations of the claim herein.

**IV. PETITIONER DOES NOT PROVE UNPATENTABILITY FOR ANY CHALLENGED CLAIM BY A PREPONDERANCE OF THE EVIDENCE**

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir.2016).

While the Board has instituted *Inter Partes Review* here, as the Court of Appeals has stated:

[T]here is a significant difference between a petitioner's burden to establish a “reasonable likelihood of success” at institution, and actually proving invalidity by a preponderance of the evidence at trial. *Compare* 35 U.S.C. § 314(a) (standard for institution of *inter partes* review), *with* 35U.S.C. § 316(e) (burden of proving invalidity during *inter partes* review).

*Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016).

As demonstrated herein, Petitioner has failed to meet its burden of proving any proposition of invalidity, as to any claim, by a preponderance of the evidence. 35 U.S.C. §316(e).

The Petition raises the following obviousness challenges:

Ground	Claims	Reference(s)
1	1-2	Lai (Ex. 1004, U.S. Pat. No. 6,288,740)
2	1-7	Lai and Kamata (Ex. 1005, U.S. Pat. No. 5,953,050)
3	1-2	Lai and Kannes (Ex. 1006, U.S. Pat. No. 5,382,972)
4	1-7	Lai, Kamata, and Kannes

5	1-2	Tompkins (Ex. 1007, U.S. Pat. No. 5,014,267)
6	1-7	Tompkins and Kamata

**A. LEVEL OF ORDINARY SKILL IN THE ART**

The Petition alleges that a POSITA in April 2000, at the time the '114 patent was filed, would have had a Bachelor's degree in electrical engineering and/or computer science, and 2-4 years of experience designing and implementing videoconferencing systems." Pet. 12. The Board applied, for purposes of the Institution Decision (Paper 7, "DI"), "Petitioner's assessment of the level of skill in the art because it is consistent with the '114 patent and the asserted prior art." DI 7. Given that Petitioner fails to meet its burden of proof in establishing anticipation or obviousness when applying its own definition, of a person of ordinary skill in the art ("POSITA"), Patent Owner does not offer a competing definition for POSITA.

**B. CLAIM CONSTRUCTION**

Petitioner overly broadly interprets the claims in order to assert unpatentability. Petitioner argues that it "applies the plain and ordinary meaning of all claim terms and contends that no claim terms require specific construction." Pet. 13. Nonetheless, Petitioner's contentions implicitly raise certain claim construction issues that, if resolved in Patent Owner's favor, would resolve the dispute between the parties because Petitioner has not met its burden to prove unpatentability under the correct constructions. Still, it is not necessary to provide a comprehensive

construction of any claim term to determine that Petitioner has not met its burden to prove unpatentability. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)); *see also* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,353 (Oct. 11, 2018) (Final Rule) (“Moreover, it also may not be necessary to determine the exact outer boundary of claim scope because only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy (*e.g.*, whether the claim reads on a prior art reference).” (citing *Nidec*)).

“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,” which includes “construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).

## 1. District Court Claim Construction

As noted, the district court in the Google Litigation has issued a Claim Construction Memorandum and Order interpreting terms of the '114 patent. Ex. 2001. The Google Claim Construction Order adopted the following constructions of the indicated terms/phrases.

<u><b>Claim Term/Phrase</b></u>	<u><b>Adopted Construction</b></u>
“new conference participant” (Claim 1)	“a new speaker, not among the current conference participants”
“current conference participant” (Claims 1 and 2)	“a subset of participants in a conference at a given point in time”
“removing” (Claim 1)	“taking off the screen”
“images” (Claims 1 and 2)	Plain and ordinary meaning
“duration” (Claim 1)	Plain and ordinary meaning
“first duration”	“predefined interval”
“replacing”	“changeover using a noticeable and gradual transition”
“displacing”	“taking the place of”
“contracting”	“decreasing in size”
“indication of speech uttered”	“audible indication of speech uttered”

Ex. 2001, 5–6, 8, 15.

In addition, the Google Claim Construction Order construed the order of steps of claim 1 as follows:

Claim 1. A method of indicating a change of speaker in a videoconferencing system, comprising the steps of:

**[Step A]** displaying images of current conference participants;

**[Step B]** displaying an image of a new conference participant responsively to an indication of speech uttered by said new conference participant;

**[Step C]** removing said image of said new conference participant when said speech is of a first duration;

**[Step D]** replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration.

Step A and Step B may be performed in any order with respect to one another, but both Step A and Step B must be performed before Step C or Step D. Further, the results of Step C and Step D are mutually exclusive in accordance with the Court’s construction of a “predefined interval” such that in order to get to Step D, the new conference participant is *not* removed in Step C. Likewise, if the “removing” of Step C occurs, then the “replacing” of Step D is *not performed* for that new conference participant. Ex. 2001, 16-19.

Patent Owner's arguments as to claim construction issues that would resolve this IPR proceeding are consistent with the Google Claim Construction Order.

**2. Claim 1 requires that multiple “images of current conference participants” are displayed in one location.**

Claim 1 recites “displaying images of current conference participants.” Petitioner asserts that “nothing in the claims or intrinsic evidence limits the displayed images/videos to being on a single terminal/user display.” Pet. 61. Thus, Petitioner contends that one user in one location may view one image of a current conference participant, and another user in another location may view an image of a different current conference participant, and that these separate displays together constitute the claimed “displaying images of current conference participants.” *See* Pet. 59–61. Contrary to Petitioner's suggestion, in the context of claim 1, the “images of current conference participants” must be displayed in a manner that they could be viewed by a single user.

As recited, claim 1 is “[a] method of indicating a change of speaker in a videoconferencing system.” Claim 1 requires the indication of a change in speaker to be accomplished by displaying images of current conference participants, displaying an image of a new conference participant, and removing the image of the new conference participant or replacing one of the images of the current conference participants with the image of the new conference participant. Displaying at least a portion of an image of the new conference participant prior to the “replacing” step



helps to indicate to a user that a new participant is replacing one of multiple current conference participants. Interpreting claim 1 to require display of multiple current participants where they could be viewed by a single user is consistent with the repeated description of “a typical display in videoconferencing environment,” which “shows a subset of a larger group of participants.” Ex. 1001, 1:64–65; *see also id.* at 1:66–2:1 (“For example, the three that have spoken the most up until the present moment may be maintained on the screen.”). One of skill in the art reading claim 1 in the context of the specification would not imagine that the claimed “displaying images of current conference participants” could possibly refer to display of one participant in one location and another participant in a different location. This contorted interpretation by Petitioner divorces a single clause from its context in the claim and specification, and should be rejected.

**3. The claimed “replacing ... *with said image of said new conference participant*” must be performed after “displaying an image of a new conference participant.” and “with” the image being displayed.**

Claim 1 recites “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration.” As the Google Claim Construction Order recognized, the “replacing” step must be performed after the step of “displaying an image of a new conference participant” because the replacing step

includes reference to “said image of said new conference participant,” which refers back to the image of the new conference participant being displayed.

The “replacing” step of claim 1 requires that at least some portion of the new conference participant must be displayed before the current conference participant is replaced, or else the replacement would not be done “with said image of said new conference participant,” as recited in the claim. As an example, Figure 2 of the ’114 patent shows how a new speaker’s image D has appeared on the screen in frame I1, and afterwards “[t]he new speaker’s image D moves into the space as the old speaker’s image B is moved out.” *See* Ex. 1001, Fig. 2, 3:13–15.

Petitioner’s contentions imply that when video of a new dominant speaker replaces the video of a prior dominant speaker, this is both the “displaying an image of a new conference participant” and “replacing one of said images of said current conference participants with said image of said new conference participant.” *See, e.g.,* Pet. 20 (arguing Lai teaches displaying an image of a new conference participant based on the display of a new dominant speaker), 23 (arguing Lai teaches the claimed “replacing” step because the video of a new dominant speaker replaces the video of the prior dominant speaker). A replacement that is not preceded by a display of any portion of the image of the new conference participant, however, is not a replacement “with said image of said new conference participant,” the antecedent basis for which is recited in the step of “displaying an image of a new conference participant.”

In addition, to the extent Petitioner is asserting that displaying a first image of a new dominant speaker, removing that image from the screen, and at a later time replacing the current dominant speaker with a new image of the new dominant speaker can somehow satisfy the claimed relationship of steps, this argument is mistaken. *See* Pet. 24–25. In such a contrived scenario, the “replacing” is not done “with said image of said new conference participant” that was being displayed, but rather with a new image that happens to be from the same user site.<sup>2</sup>

In addition to being compelled by the language of the claim, interpreting claim 1 to require that at least some portion of the new conference participant is displayed (and remains displayed) before the “replacing” is also consistent with the purposes of the inventions as described above, including to indicate to a user that a new participant is replacing one of multiple current conference participants.

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<sup>2</sup> Patent Owner does not suggest that an exact image, such as a still image, must be used in the displaying and replacing steps. Rather, consistent with the claim’s recitation of a “videoconference,” a video feed may be considered an “image” that replaces another video feed, but a prolonged removal of the feed from the screen before it is displayed again results in a new “displaying” rather than “replacing . . . with said image” being displayed as required by claim 1.

**4. The claimed “first duration” is not merely *any duration*.**

Claim 1 recites “removing said image of said new conference participant when said speech is of a first duration.” In the example described above with reference to Figure 6 of the ’114 patent, a candidate speaker appears on the display and the image continues to grow as the candidate speaker continues to speak. If the candidate speaker stops speaking, his/her image shrinks and disappears, but if the candidate speaker continues speaking beyond a predefined interval, the candidate speaker image grows to the size of the other speakers and the image pushes the old speaker out of the frame. Ex. 1001, 4:7–18. This description supports interpreting claim 1 to mean the removing happens in the event that the speech is of a first duration, and the replacing happens in the event that the speech continues beyond the first duration.

Based on the language of claim 1 read in light of the specification, in order to determine whether to remove the image of the new conference participant (“when said speech is of a first duration”) or to replace one of the images of the current conference participants with the image of the new conference participant (“when said speech is of a duration longer than *said first duration*”), the first duration must be defined in some manner. Although the “first duration” need not be a fixed amount of time, and may be based on other variables, it is not enough merely to say that it is however long a new participant spoke when the image of that participant is removed based on some other criteria.

Petitioner suggests that “a POSITA would have found it obvious that each dominant speaker [in Lai] speaks for a duration that *can be considered a first duration.*” Pet. 27 (emphasis added). Under this reading of the claim, *any duration* could be the claimed first duration. But under this interpretation, it could not be determined at a given moment to remove the image of the new conference participant or if the image will be “replacing one of said images of said current conference participants” because “said speech is of a duration longer than said first duration,” as recited in claim 1.

**5. The Petition must fail because it is keyed to incorrect claim interpretations.**

As demonstrated in the above sections, the Petition is based on incorrect claim construction positions. Because the Petition relies on these incorrect claim constructions, Petitioner cannot meet its burden to show unpatentability.

**C. Grounds Based on Lai**

**1. Overview of Lai**

Lai discloses a voice-activated site selection system in which a video display is divided into four quadrants, where the system chooses a “dominant speaker” to be displayed in one of the quadrants identified as a voice-activated quadrant (SV). Ex. 1004; 7:23-27. Figure 8 of Lai is reproduced below:

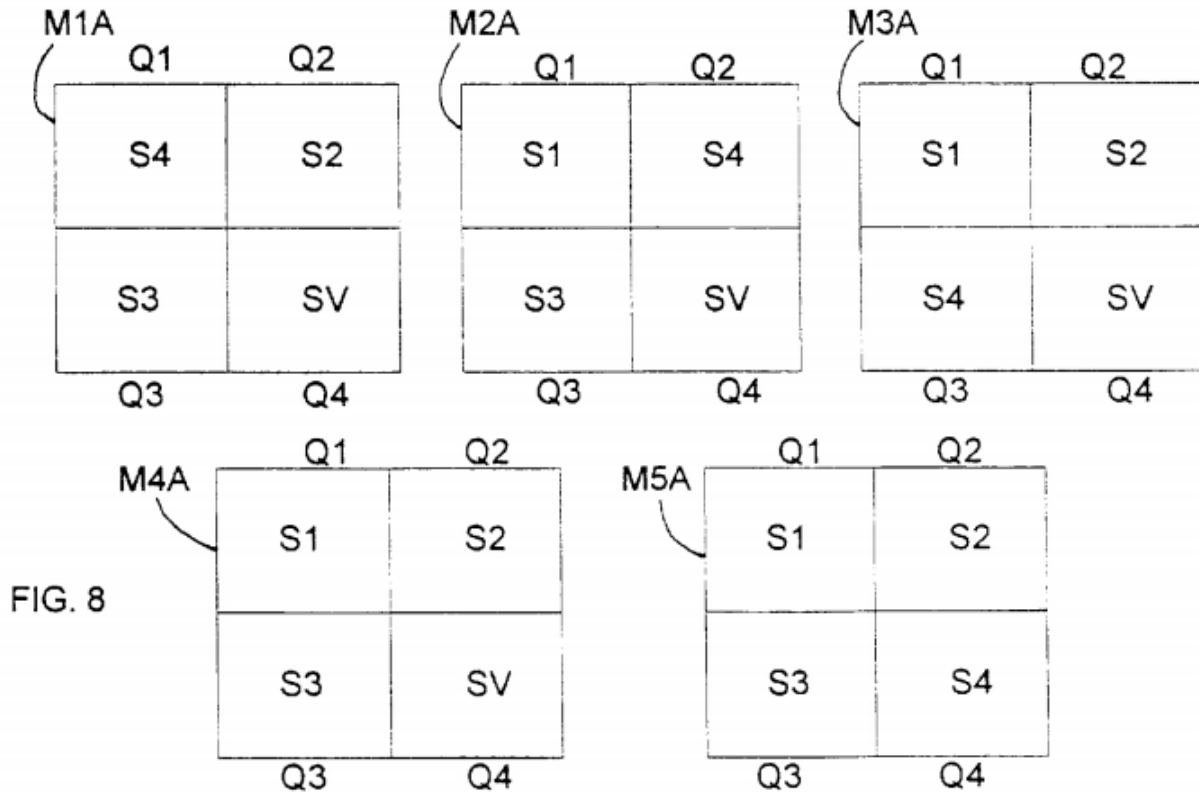


Figure 8 is a diagram illustrating video mixes sent to various sites or terminals. *See id.*, 8:6–9. According to Lai,

up to four Sites S1, S2, S3, S4 are selected as sources for generating video mixes. Three of these selected sites S1, S2, S3 are assigned to a particular quadrant Q1, Q2, Q3 and are referred to as anchored sites. For example, site S1 always appears in quadrant Q1 in all mixes (M2A, M3A, M4A, M5A) in which it appears. Site S4 is assignable to any quadrant, taking the place of one of the sites S1, S2, S3 and is referred to as a rotating site. A fifth site is selected dynamically from the remaining conference sites (sites S5 to SN) as a video Source based on a measurement of voice activity discussed further herein. This fifth site is referred to as the switched or voice-activated site SV and is assigned to the remaining quadrant Q4.

*Id.*, 6:30–43. Lai teaches that changes of video sources due to voice activity result in only a single quadrant being changed at a time, while the remaining sites stay in the same quadrant. *Id.*, 7:67-8:3.

Lai teaches that in order to be chosen as a “dominant speaker,” the Boolean value for a site must indicate that the user is speaking. *Id.*, 7:28-29. If no other user is already selected as the dominant speaker, then this site is chosen as the dominant speaker. *Id.*, 7:29–31. If another user was selected as the dominant speaker but that user is no longer speaking, then the dominant speaker is replaced with the new user. *Id.*, 7:31–33. If the dominant speaker leaves the conference, then any user that is currently speaking is selected as the new dominant speaker. *Id.*, 33–36.

**2. Lai does not teach “removing said image of said new conference participant when said speech is of a first duration,” as recited in claim 1.**

The Petition asserts that Lai’s “primary embodiment” teaches the removing step because a new dominant speaker is not selected until the current dominant speaker stops speaking. Pet. 22. Petitioner contends that “a POSITA would understand that the ‘new’ dominant speaker (discussed in element 1.3) is removed ‘when’ his/her speech is ‘of a first duration.’” *Id.* “Put differently, at the time when the new dominant speaker ‘stops speaking,’ he or she has been speaking for a first duration and that is the time at which his or her video image is removed from the site SV in favor of an even newer dominant speaker.” Pet. 23.

Petitioner’s argument gives no weight to the term “first duration.” As argued above in Section IV.B.4, the claimed “first duration” is not merely *any duration*. In order to determine whether to remove the image of the new conference participant (“when said speech is of a first duration”) or to replace one of the images of the current conference participants with the image of the new conference participant (“when said speech is of a duration longer than *said first duration*”), the first duration must be defined in some manner. Although the “first duration” need not be a fixed amount of time, and may be based on other variables, it is not enough merely to say that the “first duration” is however long a new participant spoke at the time the image of that participant happens to be removed.

The Petition (p. 25) also relies on a “variation” in Lai that involves “keeping track of which user has been speaking for the longest time so that this user is selected when the dominant speaker stops speaking.” Ex. 1004, 7:39–42. The Petition argues that “[f]or this implementation, when a new participant (say SK) speaks for a first duration insufficient to surpass the current longest-speaking speaker (say SL), then SK will be removed once she stops speaking after the first duration, if no other participants are speaking at that time.” Pet. 26 (citing Ex. 1003, ¶ 52). The Petition itself thus alleges that the replacing step may only happen with this variation in specific hypothetical circumstances: *if no other participants are speaking at that time*. This circumstance is not taught in Lai and the Petition does not allege that one



of ordinary skill in the art would have considered this scenario. Accordingly, this “variation” does not teach claim 1’s recited criteria of “removing said image of said new conference participant *when said speech is of a first duration.*”

For at least the foregoing reasons, Petitioner fails to meet its burden to show that Lai teaches the claimed “removing” step.

**3. Lai does not teach “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1.**

The Petition also fails to meet its burden to show Lai teaches “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1.

The Petition contends that “in Lai the video of a new dominant speaker replaces the video of the prior dominant speaker.” Pet. 23 (citing Ex. 1004, 7:31–33). The Petition contrives a “potential” scenario in which the new speaker happens to speak longer than that user spoke previously, which Petitioner arbitrarily labels as the “first duration.” In this contrived scenario, a speaker SK becomes dominant but then is removed. *See* Pet. 24. According to Petitioner’s hypothetical, “[s]hortly thereafter, when SK speaks again for a period longer than the first duration, she replaces the prior dominant speaker and is not removed because no one else is speaking.” Pet. 24–25.

As with the “removing” step, this “replacing” scenario gives no weight to the “first duration” term. In this hypothetical scenario, the speaker merely happens to speak longer than that speaker spoke previously. This circumstance is not taught in Lai and, in addition, *the duration of speech is not the reason that the speaker replaces any image being displayed*. In this scenario, the mere act of speaking for any duration is sufficient to become the dominant speaker, which Petitioner considers to be the claimed “replacing.” Ex. 1004, 7:28–31.

A second, and independent, problem with Petitioner’s argument is that Lai’s alleged “replacing” is not performed “with said image of said new conference participant” as recited in claim 1. The “replacing” step must be performed after the step of “displaying an image of a new conference participant” because the replacing step includes reference to “said image of said new conference participant,” which refers back to the image of the new conference participant being displayed. Thus, at least some portion of the new conference participant must be displayed before the current conference participant is replaced, or else the replacement would not be done with “said image of said new conference participant,” as recited in the claim. *See supra* Section IV.B.3. To the extent Petitioner is asserting that displaying a first image of a new dominant speaker, removing that image from the screen, and at a later time replacing the current dominant speaker with a new image of the new dominant speaker can somehow satisfy the claimed relationship of steps, this argument is

mistaken. *See* Pet. 24–25. In such a contrived scenario, the “replacing” is not done “with said image of said new conference participant” being displayed, but rather with a new image that happens to be from the same user site. In this way, Petitioner picks and chooses parts of Lai that in some cases use similar words as portions of the claim, but does not present a consistent mapping that gives effect to all claim limitations as properly interpreted as a whole.

Petitioner’s reliance on Lai’s “variation” that tracks speakers that have been speaking longest also fails to teach the claimed “replacing.” *See* Pet. 25–27. The Petition argues that “when SK begins speaking again for a longer duration that results in her surpassing SL as the speaker ‘speaking for the longest time,’ then SL will be replaced by SK, who will now remain displayed even after she stops speaking (until another user begins speaking).” Pet. 26. There are multiple problems with this argument.

First, as with what the Petition calls the “primary embodiment,” Lai’s alleged “replacing” is not performed “with said image of said new conference participant” as recited in claim 1, for the same reasons discussed above for the “primary embodiment.” To the extent Petitioner is asserting that displaying a first image of a new dominant speaker, removing that image from the screen, and at a later time replacing the current dominant speaker with a new image of the new dominant speaker can somehow satisfy the claimed relationship of steps, this argument is

mistaken. *See* Pet. 24–25. In such a contrived scenario, the “replacing” is not done “with said image of said new conference participant” being displayed, but rather with a new image that happens to be from the same user site.

Second, even according to the statement in the Petition, SK’s image will be displayed in place of SL’s “*when SK begins speaking again.*” *Id.* (emphasis added). Thus, any “replacing” is not done “when said speech is of a duration longer than said first duration” as recited in claim 1, but rather when the new speaker (here, SK) begins speaking. This simple fact alone is sufficient to determine Petitioner has not met its burden of showing unpatentability.

Thus, even considering Lai’s “variations,” Lai fails to teach the steps as recited in the claim. Accordingly, although Patent Owner contends that the Petition fails to even argue a modification of Lai that would meet the claim limitations, any suggestion that one of ordinary skill in the art reading Lai might imagine the claimed steps is based entirely on hindsight and not any evidence of record.

For at least the foregoing reasons, Petitioner fails to meet its burden to show that Lai teaches the claimed “replacing” step, or to show unpatentability based on Lai.

**4. The combination of Lai and Kamata does not remedy the deficiencies as to Lai.**

In Ground 2, the Petition relies on Kamata only to the extent that Patent Owner argues that Lai fails to satisfy claims 1-2 due to a lack of “animation.” Pet. 29.

Indeed, with regard to the hypothetical Lai-Kamata combination, the Petition merely contends that: “to the extent claim 1’s ‘displaying’, ‘removing’, and ‘replacing’ required animations, the corresponding elements would have been obvious over the Lai-Kamata system.” Pet. 35-36. Patent Owner submits that the Petition’s deficiencies with regard to Lai, discussed above, apply equally to the Petition’s proposed Lai-Kamata combination.

In view of the reasons presented herein, Petitioner has failed to meet its burden of showing that any challenged claim is unpatentable in view of Lai and Kamata. 35 U.S.C. § 316(e).

**5. Lai and Kannes do not teach “removing said image of said new conference participant when said speech is of a first duration,” as recited in claim 1.**

The Petition proposes an additional ground relying on Kannes. Pet. 43. Petitioner argues that “[t]o the extent Uniloc argues that claims 1-2 require a specific sequence of displaying, removing, and replacing allegedly not found in or taught by Lai, these claims would have been obvious over Lai in view of Kannes.” *Id.* The alleged “specific sequence,” however, is not that recited in the claims, and fails to show patentability, even if the references were combined in the manner proposed by Petitioner.

The Petition argues that “Kannes describes an approach for handling the situation where two videoconference participants speak simultaneously and, thus,

‘compete’ to be the dominant or principal speaker.” Pet. 44. According to Kannes, “[i]f two local conferees speak simultaneously into their microphones for at least a preselected time period, the software will select first one and then the other conferee (in a preset alternating pattern or with a preset frequency) as having the ‘active microphone.’” Ex. 1006, 6:4-9.

For the claimed step of “displaying an image of a new conference participant,” the Petition argues that “[a]s modified in view of Kannes, when two speakers spoke simultaneously, the Lai system would first display ‘the image of the one who commenced speaking sooner.’” Pet. 48–49 (quoting Ex. 1006, 6:14-17). The Petition argues that this image will be removed in favor of the second speaker “when the speech of the first speaker is of a first duration, i.e., the Kannes ‘preselected time period.’” Pet. 49 (citing Ex. 1006, 5:67–6:21; Ex. 1003, ¶ 89). The Petition says nothing of the first speaker’s speech ending, which is necessary to determine whether it is “of a first duration.” Because in the Petition’s modified system and hypothetical scenario the first speaker continues speaking, the speech is of a duration longer than the first duration, and, under these circumstances, the claim requires “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration.” To illustrate this point, Patent Owner notes that Petitioner relies on the same circumstance (i.e., continued simultaneous speech by two users) to allegedly

show both the removing and replacing steps, when these steps are based on different criteria. The “removing” step plainly contemplates that speech has ended before going past the “first duration,” and cannot be satisfied by speech that continues past that point.

Accordingly, Petitioner fails to meet its burden to show that the combination of Lai and Kannes teaches the “removing” step as recited in claim 1.

**6. Lai and Kannes do not teach “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1.**

The Petition also fails to show that Lai and Kannes teach “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1. For this step, the Petition relies on the same teachings from Kannes as for the displaying and removing steps: the software will select first one and then the other conferee as having the active microphone if two local conferees speak simultaneously into their microphones for at least a preselected time period. Pet. 49. Petitioner argues that “when the first speaker speaks for the Kannes ‘preselected time period’ plus an additional period of time dictated by the ‘preset alternating pattern or . . . preset frequency . . . , the first speaker will replace the second speaker once the system has made it through one cycle of the preset

alternating pattern.” Pet. 50 (first omission in Petition). This convoluted theory also fails for multiple reasons.

First, as with the grounds based on Lai alone, the alleged “replacing” in the Lai-Kannes combination does not follow the step of “displaying an image of a new conference participant” and does not involve replacing one of the images of the current conference participants “*with said image of said new conference participant.*” As argued *supra* in Section IV.B.3, the “replacing” step of claim 1 requires that at least some portion of the new conference participant must be displayed before the current conference participant is replaced, or else the replacement would not be done “with said image of said new conference participant,” as recited in the claim. The previous display (followed by removal) of an image of the new speaker cannot be the required “displaying,” because in such a scenario the “replacing” is not done “with said image of said new conference participant” being displayed, but rather with a new image that happens to be from the same user site.

Second, in the Petition’s hypothetical, the first speaker would be displayed again not when speaking longer than Kannes “preselected time period,” which the Petition considers the first duration, but only if the first speaker speaks *a certain amount longer* than Kannes’ preselected time period. As the Petition acknowledges, this “additional period of time [is] dictated by the ‘preset alternating pattern or . . . preset frequency.’” Pet. 50. Even on the Petition’s own arguments regarding this



fanciful scenario, “the image of the first speaker will not replace the image of the second speaker *until after passage of the Switch Time*,” Pet. 50, which, although this may make the duration “longer” than the preselected time period, does not result in display of the first speaker “when” the duration is longer than the preselected time period. Accordingly, the first speaker speaking longer than the preselected time period does not cause the first speaker to replace the second simultaneously-speaking speaker, and this hypothetical fails to demonstrate replacing one of said images of said current conference participants with said image of said new conference participant “*when* said speech is of a duration longer than said first duration.”

For at least the foregoing reasons, Lai and Kannes do not teach the “replacing” step recited in claim 1.

**7. Petitioner has not shown one of ordinary skill in the art would have combined Lai and Kannes in the manner proposed**

Further still, Petitioner fails to advance a compelling argument or sufficient evidence in favor of the proposed combination of Lai and Kannes. Petitioner argues, as its primary reason for the combination, that “both Lai and Kannes describe videoconferencing systems.” Pet. 45. However, the mere fact that both Lai and Kannes are in the same field does not render obvious to a POSITA the selection of any arbitrary teaching from Kannes and its insertion into Lai.

As a secondary reason, Petitioner argues that Kannes fills a gap in Lai of dealing with “two speakers simultaneously speaking for a prolonged period of time”

by providing equal display time. *Id.* However, Petitioner fails to demonstrate that a POSITA would find it desirable to display two speakers who are speaking simultaneously for a prolonged period of time. Indeed, two speakers with interfering speech would appear to be undesirable, a fact not noted by Petitioner.

Similarly, Petitioner argues, as its purported third reason, that having multiple speakers who are speaking simultaneously both displayed larger than the others would allegedly be desirable, without explaining how having two simultaneous speakers would in fact be anything other than confusing for all participants. As a final reason that this combination is allegedly obvious, Petitioner argues only that Kannes' selected teachings would be compatible with Lai, Pet. 47; however, the mere fact that references can be combined does not render a particular combination of features obvious.

One of ordinary skill in the art looking to avoid sudden changes in the display of participants, as recognized in the '114 patent, Ex. 1001, 1:52–60, would not look to a reference that provides for alternately displaying two speakers speaking simultaneously. Accordingly, the Petition fails to show one of ordinary skill in the art would have had reason to combine Lai with Kannes.

**8. The combination of Lai, Kamata, and Kannes does not remedy the deficiencies of the previous combinations.**

Finally, Petitioner's reliance on the combination of Lai, Kamata, and Kannes (Pet. 52-53) likewise fails, for all of the reasons discussed herein above. Indeed,

Petitioner merely argues that a POSITA would have recognized particular teachings selected from Kamata and Kannes as compatible, and that a POSITA would have accordingly have found it obvious to modify Lai with both of those particular teachings picked from the disclosures of Kamata and Kannes. This ground fails for at least the reasons given with respect to all other grounds based on Lai, Kamata, or Kannes.

In view of the reasons presented herein, Petitioner has failed to meet its burden of showing that any challenged claim is unpatentable in view of Lai alone; Lai and Kamata; Lai and Kannes; or Lai, Kamata, and Kannes. 35 U.S.C. § 316(e).

#### **D. Grounds based on Tompkins**

##### **1. Overview of Tompkins**

Tompkins employs the concept of a primary speaker whose video image is displayed to all other participants, and a secondary speaker whose video image is displayed only to the primary speaker. All other conference participants are labeled as “M-ary.” Ex. 1007; 59: 49-55.

FIG. 31 of Tompkins discloses a process for altering the priorities of conferees during a conference by using a VOX detect circuit to determine whether one of the users in the conference is talking. The system is conditioned to determine, in response to a detection that one user is talking for a given period sufficient to represent a detection, whether the detection signal is from the primary conferee, the secondary

conferee, or an M-ary conferee. If the voice detection signal is from the primary conferee, then no action is taken. If the system determines the voice detection is from the secondary conferee, then the system operates to change the secondary conferee to the primary conferee, and the primary conferee is changed to the secondary conferee. If the system determines the voice detection is from an M-ary conferee, then the system operates to change the M-ary conferee to the secondary conferee, and the previous secondary conferee is changed to an M-ary conferee. Ex. 1007, 60:8-42.

Thus, upon detection of speech by an M-ary conferee, that conferee's priority is promoted to that of secondary conferee, and the video image received by the primary conferee is caused to change to that of the "new" secondary conferee image (previously M-ary conferee). Conversely, the "Mate" (in Tompkins' language) that previously held the secondary priority is demoted to M-ary status.

**2. Tompkins does not teach "displaying images of current conference participants," as recited in claim 1.**

The Petition acknowledges that Tompkins teaches each user receives video from only one other conferee at a time. *See* Pet. 60 (quoting excerpt from Tompkins 19:16-35). Petitioner argues that "[t]o the extent Uniloc argues that Tompkins does not satisfy the claims because it describes displaying the primary video on one set of terminals and the secondary video on just one terminal, that argument fails" because "nothing in the claims or intrinsic evidence limits the displayed images/videos to

being on a single terminal/user display.” Pet. 61. As argued above in Section IV.B.2, however, claim 1 requires that multiple “images of current conference participants” can be viewed by a single user.

As recited, claim 1 is “[a] method of indicating a change of speaker in a videoconferencing system.” Claim 1 requires the indication of a change in speaker to be accomplished by displaying images of current conference participants, displaying an image of a new conference participant, and removing the image of the new conference participant or replacing one of the images of the current conference participants with the image of the new conference participant. Displaying at least a portion of an image of the new conference participant prior to the “replacing” step helps to indicate to a user that a new participant is replacing one of multiple current conference participants. Interpreting claim 1 to require display of multiple current participants where they could be viewed by a single user is consistent with the repeated description of “a typical display in videoconferencing environment,” which “shows a subset of a larger group of participants.” Ex. 1001, 1:64–65; *see also id.* at 1:66–2:1 (“For example, the three that have spoken the most up until the present moment may be maintained on the screen.”). One of skill in the art reading claim 1 in the context of the specification would not imagine that the claimed “displaying images of current conference participants” could possibly refer to display of one participant in one location and another participant in a different location. Petitioner’s

contorted interpretation divorces a single clause from its context in the claim and specification, and should be rejected.

**3. Tompkins does not teach “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1.**

The Petition also fails to meet its burden to show Tompkins teaches “replacing one of said images of said current conference participants with said image of said new conference participant when said speech is of a duration longer than said first duration,” as recited in claim 1.

The Petition alleges that “Tompkins describes how, once a new speaker has spoken long enough to become the ‘secondary conferee,’ a second detection of the user’s Voice Detect Signal by the system will elevate that new speaker to ‘primary conferee,’ thus replacing the previous primary conferee.” Pet. 67 (emphasis omitted). The Petition argues that “upon becoming the primary conferee, the new speaker’s video will replace the video of the previous primary conferee, which is displayed on the terminals of all other participants other than the primary.” *Id.* The Petition argues that “this duration necessarily is longer than the ‘first duration’ because it requires not only the initial generation and receipt of the voice detect signal (step 1354 of Fig. 31) but it also requires that the voice detect signal be maintained long enough to be received and processed a second time as specified by Fig. 31.” Pet. 68–69.

The Petition fails to meet its burden of proving Tompkins teaches the claimed “replacing.” The new speaker is displayed not because the duration of “said” speech was longer than the first duration, which the Petition alleges is Tompkins’ “predetermined setting,” Pet. 63, but because a “Voice Detect Signal” was generated a second time based on new speech that need not last longer than the “predetermined setting.” This is not the criteria recited in the claim of “when *said speech* is of a duration longer than said first duration,” referring to a single duration of “said speech.”

In addition, in Petitioner’s hypothetical for the “replacing” step, any replacing of “one of said images of said current conference participants” is not done “with *said image* of said new conference participant,” as this statement refers back to the image that was displayed in the previous step of the claim. Indeed, in Petitioner’s theory, including the hypothetical described on page 68 of the Petition, the new speaker “N1” was never even previously displayed on the “other displays,” only on the primary display. As noted previously, claim 1 requires the “replacing . . . with said image of said new conference participant” to follow the “displaying an image of a new conference participant.” Display in some other location, and separated by a prolonged removal, cannot meet the claimed “displaying” that must precede the “replacing,” as claim 1 requires that the displaying and replacing happen in the same

location and the same image (or feed) so they may be perceived by a user to indicate a change of speaker.

As argued above in Section IV.B.3, the claimed “replacing” must be performed after “displaying an image of a new conference participant” and “with” the image that was displayed. At most, the display of “N1” on the “other displays” in Petitioner’s hypothetical is a new “display,” entirely disconnected from the earlier “displaying,” which was not even on the same display being relied on for the “replacing” step. In this scenario, which is nowhere discussed in Tompkins, although the new image may show the same person who spoke previously (and was displayed on the “primary” display) if that person is in front of the camera at the same site providing the feed, it is not “said image” that was displayed previously. No portion of the new image is being displayed on the display in question when the replacing occurs, which the claim requires by using the displayed image as the antecedent basis in the “replacing” step, performed “*with said image of said new conference participant.*”

For at least the foregoing reasons, Petitioner fails to meet its burden to show that Tompkins teaches the claimed “replacing” step, or to show unpatentability based on Tompkins.



**4. The combination of Tompkins and Kamata does not remedy the deficiencies as to Tompkins.**

In Ground 6, the Petition relies on Kamata only to the extent that Patent Owner argues that Tompkins fails to satisfy claims 1-2 due to a lack of “animation” or “contracting.” Pet. 70. Indeed, with regard to the hypothetical Tompkins-Kamata combination, the Petition merely contends that: “such animation would have been obvious over Tompkins in view of Kamata.” Patent Owner submits that the Petition’s deficiencies with regard to Tompkins, discussed above, apply equally to the Petition’s proposed Tompkins-Kamata combination.

In view of the reasons presented herein, Petitioner has failed to meet its burden of showing that any challenged claim is unpatentable in view of Tompkins and Kamata. 35 U.S.C. § 316(e).

**E. The Petition fails to Prove Obviousness of Any Dependent Claim**

The deficiencies of the Petition articulated above concerning the challenged independent claim apply also to the analysis of the challenged dependent claims. Accordingly, the Petition should be denied in its entirety.

**V. APJS ARE UNCONSTITUTIONALLY APPOINTED PRINCIPAL OFFICERS**

As determined in *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320 (Fed. Cir. 2019), “APJs have substantial power to issue final decisions on behalf of the United States without any review by a presidentially-appointed officer.” Patent Owner submits that APJs are principal officers under the Appointments Clause of the

Constitution for this reason, but undisputedly are not appointed through the constitutionally-mandated mechanism of appointment for principal officers.

Patent Owner submits that the *Arthrex* decision's remedy (invalidation of the statutory limitations on removal of APJs) impermissibly re-writes the statutes governing APJs. As argued by *Arthrex* in its en banc petition:

Given the adjudicative nature of IPRs, Congress would not have intended the IPR process to be run by decision-makers who lack the key attributes of impartiality and independence mandated by the Due Process Clause and the Administrative Procedure Act ("APA"). Patents are property entitled to due process protections. *See [Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 138 S. Ct. 1365, 1379 (2018)]*. Such protections include independent and impartial decision-makers. *See Schweiker v. McClure, 456 U.S. 188, 195 (1982)* ("As [the Supreme Court] repeatedly has recognized, due process demands impartiality on the part of those who function in judicial or quasi-judicial capacities"). This Court has likewise described as an "indispensable ingredient [of due process] an opportunity to be heard by a "disinterested decision-maker." *Belden, Inc. v. Berk-Tek LLC, 805 F.3d 1064, 1080 (Fed. Cir. 2015)* (citations omitted).

Congress has recognized for decades that independence and impartiality are essential for agency adjudicators. The Administrative Procedure Act provides that a hearing must be conducted in an "impartial manner." 5 U.S.C. §556(b). And Congress expressly provided that administrative law judges may be removed "only for good cause established and determined by the Merit Systems Protection

Board.” 5 U.S.C. §7521(a). Those tenure protections play an indispensable role in ensuring impartiality. As Justice Breyer explained in *Lucia*:

The substantial independence that the Administrative Procedure Act’s removal protections provide to administrative law judges is a central part of the Act’s overall scheme. See *Ramspeck v. Federal Trial Examiners Conference*, 345 U.S. 128, 130 (1953);

*Wong Yang Sung v. McGrath*, 339 U.S. 33, 46 (1950). Before the Administrative Procedure Act, hearing examiners “were in a dependent status” to their employing agency, with their classification, compensation, and promotion all dependent on how the agency they worked for rated them. *Ramspeck*, 345 U. S., at 130. As a result of that dependence, “[m]any complaints were voiced against the actions of the hearing examiners, it being charged that they were mere tools of the agency concerned and subservient to the agency heads in making their proposed findings of fact and recommendations.” *Id.*, at 131. The Administrative Procedure Act responded to those complaints by giving administrative law judges “independence and tenure within the existing Civil Service system.” *Id.*, at 132; *cf. Wong Yang Sung, supra*, at 41-46 (referring to removal protections as among the Administrative Procedure Act’s “safeguards . . . intended to ameliorate” the perceived “evils” of commingling of adjudicative and prosecutorial functions in agencies). *Lucia v. SEC*, 138 S. Ct. 2044, 2060 (2018) (Breyer, J., dissenting). This Circuit has also recognized the importance of the decisional independence of ALJs and agreed that an ALJ may not be placed in a position where he would be removable “at will.” See *Vessel v. Office of Pers. Mgmt.*, 29 F.3d 600, 605 (Fed. Cir. 1994).

Congress would have deemed those protections no less important—and probably even more important—here. Though the *Arthrex* panel determined that APJs are subject to a different removal restriction than the one in the APA, the court correctly determined that Congress granted APJs for-cause removal protections. [Opinion at 16-17]. By doing so, Congress not only acknowledged the longstanding importance of such protections but confirmed that they should apply here to ensure decisional independence and impartiality.

*Arthrex, Inc. v. Smith & Nephew, Inc.*, Appeal 2018-2140, APPELLANT ARTHREX, INC.’S COMBINED PETITION FOR REHEARING AND/OR REHEARING *EN BANC*, D.I. 78 (Fed. Cir.). Although the Federal Circuit has denied en banc review in *Arthrex*, the issue is ripe for Supreme Court review.

In addition, the ability to remove APJs at will is insufficient to render APJs inferior officers. The importance placed on review of the decisions of Court of Criminal Appeals Judges in *Edmond v. US*, 520 U.S. 651 (1997), is inconsistent with *Arthrex*’s determination that invalidation of statutory limitations on the removal of APJs is sufficient to render APJs inferior officers. *See Edmond*, 520 U.S. at 665 (“What is significant is that the judges of the Court of Criminal Appeals have no power to render a final decision on behalf of the United States unless permitted to do so by other Executive officers.”).

In view of these issues, only Congress can fix the IPR statutory scheme, and this case must be dismissed. Patent Owner recognizes that the Board has previously

“declin[ed] to consider . . . constitutional challenge[s] as, generally, ‘administrative agencies do not have jurisdiction to decide the constitutionality of congressional enactments.’” *Square, Inc. Unwired Planet LLC*, Case IPR2014-01165, Paper 32 at 25 (PTAB Oct. 30, 2015) (quoting *Riggin v. Office of Senate Fair Emp’t Practices*, 61 F.3d 1563, 1569 (Fed. Cir. 1995)).

## VI. CONCLUSION

For at least the reasons set forth above, Uniloc respectfully requests that the Board deny all challenges in the instant Petition.<sup>3</sup>

Date: April 23, 2020

Respectfully submitted,

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<sup>3</sup> Patent Owner does not concede, and specifically denies, that there is any legitimacy to any arguments in the instant Petition that are not specifically addressed herein.

**CERTIFICATE OF COMPLIANCE**

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this Response to Petition complies with the type-volume limitation of 37 C.F.R. § 42.24(b)(2) because it contains fewer than the limit of 14,000 words, as determined by the word-processing program used to prepare the brief, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a)(1).

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**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned certifies that an electronic copy of the foregoing PATENT OWNER RESPONSE, along with any accompanying exhibits, was served via email to Petitioner's counsel at the following addresses identified in the Petition's consent to electronic service:

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