

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

K.MIZRA LLC,
Patent Owner.

Case No. IPR2026-00254
Patent 8,144,717

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Plaintiff Google LLC's Complaint for Declaratory Judgment of Non-Infringement of U.S. Patent No. 81,44,717 and U.S. Patent No. 8,438,120, <i>Google LLC v. K.Mizra LLC</i> , Case No. 3:25-cv- 08107-JCS (N.D. Cal. Sept. 24, 2025, ECF No. 1)
2002	America Invents Act, H.R. 112-98, 112th Cong. (2011)
2003	Questions for the Parties, <i>Google LLC v. K.Mizra LLC</i> , Case No. 3:25-cv-08107-JCS (N.D. Cal. Mar. 19, 2026, ECF No. 40)
2004	Plaintiff Google LLC's Notice of Voluntary Dismissal, <i>Google LLC v. K.Mizra LLC</i> , Case No. 3:25-cv-08107-JCS (N.D. Cal. Mar. 27, 2026, ECF No. 46)
2005	Transcript from March 24, 2026 Hearing on Defendant K.Mizra LLC's Plaintiff Google LLC's Motion to Dismiss, <i>Google LLC v. K.Mizra LLC</i> , Case No. 3:25-cv-08107-JCS (N.D. Cal. Mar. 24, 2026) (Ordered, not yet received)
2006	Plaintiff K.Mizra LLC's Complaint for Patent Infringement, <i>K.Mizra LLC v. Google LLC</i> , Case No. 1:26-cv-00754 (W.D. Tex. Mar. 27, 2026, ECF No. 1)
2007	Plaintiff K.Mizra LLC's Complaint for Patent Infringement, <i>K.Mizra LLC v. Amazon.Com, Inc. et al.</i> , Case No. 1:26-cv-00316 (W.D. Tex. Feb. 10, 2026, ECF No. 1)
2008	Patent and Trademark Office, Notice of Proposed Rulemaking - Revision to Rules of Practice before the Patent Trial and Appeal Board, https://federalregister.gov/d/2025-19580 , Oct. 17, 2025
2009	Scheduling Order, <i>K.Mizra LLC v. Google LLC</i> , Case No. 1:25- cv-00236 (W.D. Tex. June 17, 2025, ECF No. 39)
2010	Patent and Trademark Office, Additional Discretionary Institution Considerations – U.S. Manufacturing and Small Business Use of AIA Proceedings, https://www.uspto.gov/patents/ptab/interimdirector-discretionary-process , Mar. 11. 21, 2026
2011	Collection of Documents Regarding Manufacturing of Google Nest and Google Home Products
2012	Alphabet Inc. (Google), Annual Report (Form 10-K) (Dec. 31, 2025)

IPR2026-00254 Patent Owner's Preliminary Response

2013	U.S. Publication No. 2003/0151513 A1 to Hermann et al.
2014	June 6, 2007 International Search Report with July 12, 2007 Publication WO 2007/078193 A1

Pursuant to 37 C.F.R. § 42.107, Patent Owner K.Mizra LLC (“K.Mizra” or “Patent Owner”) files this preliminary response to the Petition, setting forth reasons why the Petition for *inter partes* review of claims 1-20 of U.S. Patent 8,144,717 (the “’717 patent”), as requested by Google LLC (“Petitioner”), should be denied on the merits.

I. INTRODUCTION

The ’717 Patent discloses novel techniques related to forming operating routes for communications within wireless networks formed of an “association unit” and “a plurality of stations.” As part of a disclosed method, a station starts up in a not-associated state, transmits an association request message, and may receive an association grant from the association unit or another station. Per claim 1, the establishment of the operating route first appears in elements [1.3] and [1.4] as follows: “[1.3] the association request message and/or the association grant in response thereto ***establishing an operating route*** associated with the station for exchanging operating messages with the association unit during subsequent operation, [1.4] the operating route associated with the station running through a source of the association grant in response to said one of the association request messages.” (emphasis added along with the Petition’s identification of claim elements). Challenged independent claims 11 and 14 contain similar recitations, as Element [11.4] recites a station’s processor circuit that is “configured to establish

an associated route” and Element [14.5] recites “storing route information defining a route between the station that has switched to the associated state and the association unit.”

The Petition relies exclusively on Yoon for every ground asserted against the claims of the '717 patent, but Yoon does not teach these limitations directed to establishing or defining the route between the station and the association unit upon a station's change to an associated state. Rather, as acknowledged in the Petition (Pet.. 8-9), the one-hop routes used and stored by Yoon's nodes are not multi-hop routes to Yoon's C2 node. Instead, Yoon discloses and requires subsequent steps where upstream nodes, not a route known to the downstream node, establish and define the route used by that downstream node.

As explained in paragraph [0066] of Yoon, after the upstream node notes a change in topology due to a JOIN_ACK message, it sends a message further upstream towards Yoon's C2 node. That message, and the change in topology, must be ultimately acknowledged by each upstream node, including the C2 node, prior to use of the topology to the prevent the topology from being “blacklisted.” Yoon, [0067] (“the upstream node determines whether the update in step 560 was successful, i.e., that its upstream node received and acknowledged receipt of the sub-tree change information. If the upstream node does not receive an acknowledgement from its upstream node, then in step 564, the upstream node that

did not acknowledge the update information is considered 'blacklisted', and a tree repair process is executed"). Indeed, as acknowledged in paragraph [0066] of Yoon, the downstream station only selects "candidate upstream nodes." Thus, the process of Yoon is similar to the process of U.S. Patent Publication No. 2003/0151513 to Hermann (Ex. 2013, "Hermann"), which was distinguished in the Background of '717 patent ('717 patent, 1:13-2:2).

For these reasons, Patent Owner respectfully requests that the Board deny institution.

II. THE '717 PATENT

The '717 patent, entitled "Initialization of a Wireless Communication Network," is directed to a method of operating a wireless communication network, a wireless communication system that uses such a method, and stations for use in such a network. '717 patent, 1:6-9. The invention addresses drawbacks with prior centralized and decentralized approaches to routing decisions. '717 patent, 1:59-2:2.

The '717 patent's novel approach provides a wireless network in which routes for communication can be determined without forwarding information via stations whose routes have not yet been defined. '717 patent, 3:5-13. The invention accomplishes this through a controlled, cascading association process that builds routes incrementally outward from a central association unit, ensuring that each

station's multi-hop route to exchange messages with a central unit is fully established before that station is permitted to grant association to other stations.

FIG. 1 of the '717 patent illustrates an exemplary wireless network:

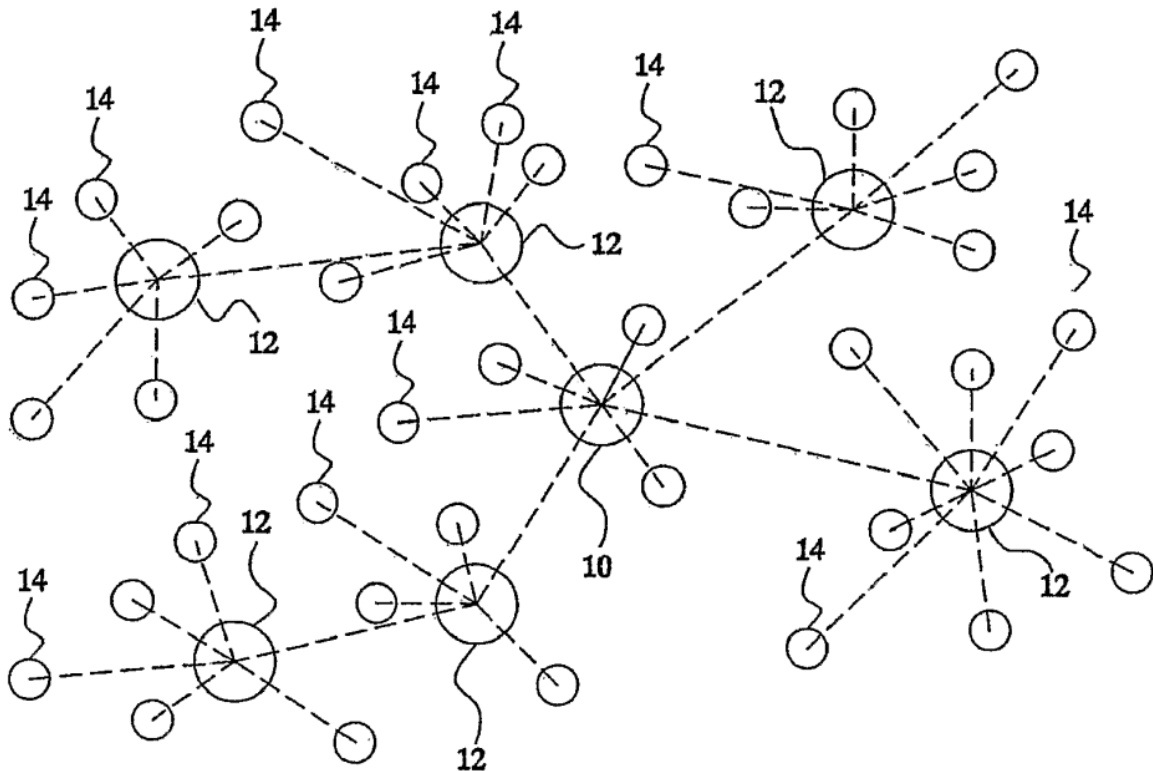


Fig.1

'717 patent, FIG. 1.

The network comprises an association unit 10, a plurality of beacon frame transmitters 12, and a plurality of sensor stations 14. '717 patent, 4:54-57.

Communication routes are defined between the association unit 10 and sensor stations 14, using wireless communication links (shown by dashed lines) between

association unit 10, beacon frame transmitters 12, and sensor stations 14. '717 patent, 4:57-62. The communication routes form a tree structure with association unit 10 at its root, beacon frame transmitters 12 at its nodes, and sensor stations that can be coupled in a star topology. '717 patent, 4:62-5:1.

Routes can be established through a two-stage process: a discovery stage and an association stage. '717 patent, 6:3-19. In the association stage, sensor stations 14 and beacon frame transmitters 12 send requests to associate to association unit 10 or beacon frame transmitters 12, to establish a route through the beacon frame transmitters 12 for subsequent use. '717 patent, 6:20-24 ("The route via the granting station is thereby established for subsequent use). Thus, routes are established upon an association grant from the association unit or from a station that has switched to the associated state directly or indirectly based on an association grant from the association unit, in a "wave of association that radiates from nodes to nodes starting from the association unit." '717 patent, 3:27-32.

Only the association unit and stations that have an established route to the association unit are allowed to grant association requests. '717 patent, 3:32-38. The association unit can maintain control over the network by first granting association to selected preferred beacon frame transmitters and granting association requests to others later, such as to complete connections to all sensor stations 14 or the use of secondary association requests. '717 patent, 10:35-41, 10:58-11:7. The grant of

the request under the control of the association unit and only when a route has already been established ensures that routes can be used without delay for subsequent operation(s) by the station that is associated. '717 patent, 3:38-39.

Petitioner challenges claims 1–20 of the '717 patent across three grounds. The three independent claims are claims 1 (a network claim), 11 (a station claim), and 14 (a method claim). Their full text is reproduced below.

Claim 1 of the '717 patent, along with the Petition's numbered designation of claim elements, recites:

1. [Preamble] A wireless communication network that comprises an association unit and a plurality of stations, [1.1] each station being configured to start up in a not-associated state and to transmit association request messages in the not-associated state, [1.2] each station being configured to switch to an associated state upon reception of an association grant in response to one of its association request messages, [1.3] the association request message and/or the association grant in response thereto ***establishing an operating route*** associated with the station for exchanging operating messages with the association unit during subsequent operation, [1.4] the operating route associated with the station running through a source of the association grant in response to said one of the association request messages and, [1.5] if the source of the association grant is not the association

unit, the operating route between the source of the association grant and the association unit previously established for the source of the association grant in response to association request messages and/or the association grants for intermediate stations, [1.6] in which network

the association unit is configured to transmit association grants as responses to received ones of the association request messages;

[1.7] at least part of the stations is configured to become active to transmit association grants as responses to received ones of the association request messages, but only after switching to the associated state upon an association grant from the association unit or one of the at least part of the stations switched to the associated state directly or indirectly based on an association grant from the association unit.

'717 patent, 14:28-58 (emphasis added).

Claim 11 of the '717 patent recites:

11. [Preamble] A station for use in a wireless communication network, [11.1] the station comprising a transmitter arrangement, a receiver arrangement and a processor circuit coupled to the transmitter arrangement and the receiver arrangement, [11.2] the processor circuit being configured to start up in a not-associated state and

to cause the transmitter arrangement to transmit association request messages in the not-associated state, [11.3] the processor circuit being configured to switch to an associated state upon reception at the receiver arrangement of an association grant in response to one of the association request messages, [11.4] the processor circuit being configured to ***establish an associated route for communication with an association unit*** during subsequent communication of operating messages to an association unit, [11.5] the associated route including a source of the association grant, and, if the source of the association grant is not the association unit, the operating route between the source of the association grant and the association unit previously established for the source of the association grant in response to association request messages and/or the association grants for intermediate stations, [11.6] the processor circuit being configured to cause the transmitter arrangement to initiate and transmit association grants in response to association request messages, but only after switching to the associated state.

'717 patent, 15:61-16:16 (emphasis added).

Claim 14 of the '717 patent recites:

14. [Preamble] A method of operating a wireless communication network that comprises an association unit and a plurality of stations, the method comprising
[14.1] installing the stations in a not-associated state;

- [14.2] transmitting association request messages from stations in the not-associated state;
- [14.3] transmitting the association grants in response to the association request messages,
- [14.4] switching each station to an associated state when the station has received an association grant in response to one of its association request messages;
- [14.5] *storing route information defining a route between the station that has switched to the associated state and the association unit*, the route including the station that has sent the associated grant and, if the source of the association grant is not the association unit, the operating route between the source of the association grant and the association unit previously established for the source of the association grant in response to association request messages and/or the association grants for intermediate stations; wherein
- [14.6] each association grant is transmitted only from the association unit or from an intermediate station, the latter only after said intermediate station has switched to the associated state upon an association grant from the association unit or one of the at least part of the stations switched to

the associated state directly or indirectly based on an association grant from the association unit.
'717 patent, 16:29-56.

III. CLAIM CONSTRUCTION

As noted in Patent Owner's Request for Discretionary Denial at 6-9, Petitioner actively avoided setting forth any position on how the claims of the '717 patent should be construed. Instead, the Petition declares that it interprets the claims "in accordance with the ordinary and customary meaning ... as understood by one of ordinary skill in the art." Pet. at 12. Petitioner does not propose any express constructions for specific terms.

Patent Owner respectfully submits that proper claim construction underlies any validity determination, and submits its analysis of the claim language as applied to the challenged claims and disclosures in the references used in Section IV below, without waiving its right to submit supplemental positions concerning claim construction in a Patent Owner Response. In failing to properly interpret the independent claims, the Petition fails.

In particular, as will be addressed below in Section IV, the correct understanding of each independent claim requires a station to establish or define a route to exchange messages with an association unit that passes through a station that granted the association request for a station. At least this feature is absent from Yoon. Thus, Patent Owner submits that the Board need not engage in any

other pre-institution claim construction of the claim terms discussed in Section IV below to find the Petition deficient. For the reasons presented in Section IV below, Petitioner’s Grounds 1-3 include fundamental flaws and fail to establish the disclosure or suggestion of every element in each independent claim.

IV. ANALYSIS

Petitioner’s challenges to independent claims 1, 11, and 14 in Ground 1 are based on Yoon, and the Petition’s reliance on Andric and Budampati in combination with Yoon to challenge certain dependent claims does not remedy the deficiencies of Ground 1.¹ As noted above, the Petition fails to establish the presence of Elements [1.3] and [1.4] of independent claim 1 in its Ground 1 challenge based on Yoon alone, and the Petition relies on this faulty analysis when

¹ See Pet., 5:

Ground	Reference(s)	Basis	Claims
1	U.S. Patent Application Publication No. 2006/0215588 to Yoon (“Yoon”) (EX1005)	102/103	1, 7-11, 14
2	Yoon in view of U.S. Patent Application Publication No. 2004/0018839 to Andric (“Andric”) (EX1006)	103	2-5, 12, 13, 15-19
3	Yoon in view of Andric and U.S. Patent Application Publication No. 2006/0274671 to Budampati (“Budampati”) (EX1007)	103	6, 20

addressing Element [11.4] in independent claim 11 and Element [14.5] in independent claim 14.

A. Ground 1 Fails to Establish that Yoon Discloses or Suggests Independent Claims 1, 11, and 14

1. Petitioner Fails to Establish That Elements [1.3] and [1.4] Are Satisfied by Yoon

Element [1.3] of claim 1 recites, “the association request message and/or the association grant in response thereto *establishing an operating route associated with the station for exchanging operating messages with the association unit* during subsequent operation.” Element [1.4] recites, “the operating route associated with the station *running through a source of the association grant* in response to said one of the association request messages.”

Petitioner's mapping of Elements [1.3] and [1.4] fails because Yoon's JOIN_REQUEST and JOIN_ACK messages, which the Petition relies upon (Pet., 17-20), do not establish an operating route “for exchanging operating messages with the association unit” “running through a source of the association grant.” The claim requires that the association request and/or grant itself establish a complete, functional route to allow the station and the association unit to exchange operating messages in subsequent operation. Yoon's JOIN_ACK and JOIN_REQUEST messages do no such thing.

Petitioner concedes that Yoon's individual stations store only "one-hop routes," while "full operating route information (e.g., multi-hop routes)" resides exclusively at the C2 node. Pet. at 19–20 ("Yoon also establishes individual operating routes (e.g., one-hop routes) for each downstream node by having the downstream node store the address of its upstream node"; "Yoon's C2 node stores full operating route information (e.g., multi-hop routes) to every downstream node"). The station's one-hop database entry, similar to the Herrmann reference discussed in the Background of the '717 patent, is not an operating route for exchanging messages with Yoon's C2 (or association) node as it only indicates the upstream node address, the C2 address, the cost-to-C2 metric, making it a single forwarding entry pointing to the next hop.

More fundamentally, after a downstream node in Yoon receives a JOIN_ACK message from an upstream node (step 555), the C2 node does not yet know the downstream node exists in the network. Yoon ¶[0027] ("The C2 node 100 needs to know the path or network route to every R node"). Unlike the '717 patent, there is nothing in Yoon to indicate that an operating route has been defined or established based on the association requests and grants in Yoon. Rather than demanding the careful protocols of the '717 patent that only allow association requests to be established for bona fide routes, Yoon chooses to grant association

requests and then implement another process to establish the viability of a route between an association unit and a station.

In particular, Yoon requires a successful topology update to propagate from a station back to the association unit before confirming a route. That update is a separate, multi-step process entirely. In Yoon's step 558, a station that grants an association request checks whether its sub-tree changed; if so, under step 560, it transmits updated topology information to its own upstream node, and so on, until the updated topology information eventually reaches the C2 node. Yoon, ¶[0066].

Critically, paragraph [0067] of Yoon discloses that this topology propagation can fail. After sending the update in step 560, the upstream node waits for an acknowledgement in step 562. If none is received, the non-acknowledging upstream node is "blacklisted" and a tree repair process is initiated. This means Yoon expressly contemplates a scenario in which downstream node has received a JOIN_ACK and entered an associated state, yet the operating route for exchanging messages with C2 has not been established because the topology update chain failed before reaching C2. That scenario confirms that neither the association request or grant of Yoon established or defined the operating route the claim requires.

In contrast, the '717 patent solves this problem. Its cascading association architecture guarantees that when a station receives an association grant, the

complete operating route to the association unit is established and usable without delay for subsequent operation(s). '717 patent, 3:5-13, 3:27-39. In Yoon, the association grant (JOIN_ACK) establishes at most a link between one downstream station and one upstream station. The full operating route for exchanging messages with C2 is established only later, contingently, through the acknowledgment chain of paragraphs [0066] and [0067]. Thus, Petitioner fails to show that Yoon discloses or suggest Elements [1.3] and [1.4] of claim 1 of the '717 patent.

2. Petitioner Fails to Establish That Elements [11.4] and [14.5] of Independent Claims 11 and 14 Are Satisfied by Yoon

The Petition relies on its analysis of Element [1.3] to satisfy Elements [11.4] and [14.5], which similarly require a station to establish or define a route to an association unit. *See* Pet., 38 (addressing Element [11.4] and discussing Petitioner's view on the equivalence of an "operating route" and an "associated route"); Pet., 41 (incorporating the analysis of Element [1.3] and four other elements without any explanation as to how any of those analyses specifically relate to Element [14.5]). Thus, for the same reasons discussed above with respect to Element [1.3], the Petition fails to establish that Yoon discloses or suggests Elements [11.4] and [14.5]. Ground 1, which is the sole Ground directed to the challenged independent claims, fails, and this warrants denial of the Petition on the merits.

B. Grounds 2 and 3 Do Not Remedy the Deficiencies of Ground 1

Grounds 2 and 3 do not address the elements absent from Yoon discussed above with regard to Ground 1. Ground 2 relies on the Andric reference with Yoon and is applied to claims 2-5, 12, 13, and 15-19. Pet., 42-67. Ground 3 relies on the Budampati reference with Yoon and is applied to claims 6 and 20. Pet., 68-70. Thus, Grounds 2 and 3 also fail as a result of the deficiencies of Ground 1, and do not demonstrate a reasonably likelihood of success as to the challenged dependent claims.

V. CONCLUSION

For the reasons presented above, Patent Owner respectfully asks that the Director deny the Petition on the merits. No *inter partes* review should be instituted.

Dated: May 26, 2026

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CERTIFICATE OF WORD COUNT

The undersigned certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE complies with the type-volume limitation in 37 C.F.R. § 42.24(b)(1). According to the word-processing system's word count, the brief contains 3,145 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

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CERTIFICATE OF SERVICE

I hereby certify that on May 26, 2026, a true and correct copy of the foregoing document was served via email, by consent, to Petitioner by serving the correspondence email addresses of record as follows:

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