

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ORACLE CORPORATION,

Petitioner,

v.

COMPETITIVE ACCESS SYSTEMS, INC.,

Patent Owner.

IPR2023-00880

U.S. Patent No. 9,350,649

**PETITIONER'S PRELIMINARY REPLY
TO PATENT OWNER'S PRELIMINARY RESPONSE**

TABLE OF CONTENTS

	<u>Page</u>
I. Discretionary Denial Is Not Appropriate.....	1
II. PO's Implicit Construction Is Incorrect.....	6

PETITIONER'S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,350,649 to Delangis (“the ’649 Patent”)
1002	Prosecution History for the ’649 Patent
1003	Declaration of Bill Lin, Ph.D.
1004	U.S. Patent Application No. 2003/0223450 to Bender (“Bender”)
1005	U.S. Patent No. 6,160,808 to Maurya (“Maurya”)
1006	Mineno (Annotated)
1007	RFC793
1008	RFC1661
1009	RFC1990
1010	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Complaint
1011	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit F-649 MPTCP
1012	EDTX-2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit G-649 SD-WAN
1013	Declaration of Gordon MacPherson for Mineno
1014	Declaration of Sandy Ginoza for RFC793
1015	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc. Competitive Access Systems, Inc.’s Disclosure of Asserted Claims and Infringement Contentions
1016	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit D-801 MPTCP
1017	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit E-801 SD-WAN
1018	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit H-908 MPTCP
1019	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., Exhibit I-908 SD-WAN
1020	Cohen, Managing TCP Connections under persistent HTTP
1021	EDTX 2:22-cv-287 Competitive Access Systems, Inc. v Oracle Corporation and Oracle America, Inc., CAS’s Opposition to Oracle’s Motion to Dismiss

Exhibit No.	Description
1022	Chen, New Approaches to Routing for Large-Scale Data Networks
1023	GitHub page
1024	Gustafsson, A Literature Survey on Traffic Dispersion
1025	IEEE Xplore Article - Multiple Paths Protocol for a Cluster Type Network (Annotated)
1026	Wireless IP Network Standard
1027	U.S. Patent No. 8,370,507 to Cain (“Cain”)
1028	Microsoft Press Computer Dictionary, Third Edition
1029	Anderson, et. al, Pentium Processor System Architecture

I. Discretionary Denial Is Not Appropriate.

Regarding *Advanced Bionics* part one, Ground 1 relies on art not previously before the Office. PO asks the Board to discretionarily deny the Petition based on art from Grounds 2 and 3, despite failing to explain why the Board should deny institution when § 325(d) applies at most to *some* of the asserted grounds. POPR, 3, 4. PO cites no case where the Board denied institution when the petition presented an independent ground with prior art the Office never considered.

Grounds 2 and 3 rely on four references. Three of these (Mineno, RFC793, and RFC1990) were cited in the IDS, but one reference (RFC1661) was never cited nor mentioned during prosecution. RFC1661 is not cumulative of RFC1991; RFC1661 introduced PPP while RFC1990 added multilink features. Pet. 13. Ground 3 rely on RFC1661 for establishing and terminating links (Pet. 58, 73-74, 76), which is not discussed in RFC1990. Therefore, denial is inappropriate under *Advanced Bionics* part one.

Denial is also inappropriate under *Advanced Bionics* part two (*Becton* factors (c), (e) and (f)). None of the these references were the basis of any rejection or discussed during prosecution because the Examiner materially erred by focusing on the wrong subject matter and overlooked relevant prior art during prosecution. Pet. 8-9, 14. Discretionary denial would only compound the Examiner's error.

***Becton* Factor (c)** strongly weighs against denial. Mineno, RFC793, and

RFC1990 were not mentioned in any Office Action during prosecution. Pet. 14.

Becton Factor (e) strongly weighs against denial because the Examiner committed material errors. As the Petition and Dr. Lin explained, the Examiner erred by focusing on multicast streaming, which was used to stream the same video and audio from one server to multiple clients simultaneously. Pet. 8-9; Ex-1003 ¶¶16-17. Other than searching for the inventor's name, the Examiner included "multicast" in 22 of 28 searches (Pet. 9; Ex-1003 ¶16). For the only two Office Actions, the Examiner relied solely on four multicast references with motivations to combine based on "multicast" and "multicasting service." Pet. 9; Ex-1003 ¶17.

However, the '649 patent does not mention multicasting, and the Applicant took advantage of the Examiner's misunderstanding of the technology and distinguished the patent from multicasting. Pet. 9; Ex-1002, 000468-9, 000538-40; Ex-1003 ¶¶16-17. The Applicant argued that the cited art did not satisfy the '649 patent claims because "[t]he whole purpose of Perkins is *multicasting*[,] " (Ex-1002, 000468); because Li teaches "*multicast* hosts" (Ex-1002, 000538-9); and because Cain teaches "different data is being sent to different *multicast* groups" (Ex-1002, 000539). Pet. 9; Ex-1003 ¶17. The Applicant argued that multicasting art (Perkins) streamed the "same data" to multiple nodes, while the '649 patent requires "different data" being sent over different connections. Ex-1002, 000468-9.

By focusing on multicasting art, the Examiner overlooked the teachings of

Mineno, RFC793, and RFC1990, which teach the limitations that the Applicant argued were missing in the multicasting prior art. Pet. 65-68 (explaining how Grounds 2 and 3 teach sending different data over multiple paths between data-requesting and network-edge devices). The Examiner erred by focusing on multicasting instead of the concepts described in the '649 specification or claims.

The POPR failed to address the Examiner's errors and instead chose to misrepresent the Petition. PO wrongly states that "Petitioner summarily states in its review[] that the Examiner 'focused on other art directed to multicast for streaming media,' this ***single, conclusory sentence*** is insufficient to show a material error on the Examiner's part[.]" POPR, 46. However, the Petition's Section II.B explains the Examiner's error in detail, with citations to the file history and Dr. Lin's explanation. Pet. 8-9; Ex-1003 ¶¶16-17. PO made the strategic decision to avoid this analysis rather than rebut it. It would be inappropriate for PO to attempt to address the Examiner's error for the first time on sur-reply.

For *Becton Factor* (e), PO also argues that Perkins, a reference discussed in Office Actions, is "substantially the same as Mineno in that both Perkins and Mineno disclose[] a network including multiple, distinct pathways for transmitting data." POPR, 47. But PO does not explain why this superficial similarity would matter and is contradicted by the Applicant's past representations to the Patent Office.

Perkins and Mineno are directed to different subject matter and are not substantially the same. Perkins is a streaming reference where one server multicasts a stream (e.g., audio/video) to multiple clients. PO distinguished Perkins from the '649 patent by arguing that “[t]he whole purpose of Perkins is *multicasting a stream of data into multiple streams of data*[.]” Ex-1002, 000468. In contrast, Mineno does not describe multicasting or streaming. Instead, Mineno teaches a networking protocol—rather than a streaming media application—that uses multiple TCP paths, which is exactly what PO alleges is covered by the '649 patent. Ex-1011.

PO's argument that the references are substantially the same cannot be reconciled with the Applicant's position during prosecution. During prosecution, the Applicant distinguished Perkins by arguing that having multiple pathways for transmitting data (for multicast streaming) was not enough to satisfy the claims. Ex-1002, 000468-9, 000539. Now, PO takes the opposite position, arguing that the Board need only consider whether Perkins and Mineno both teach multiple distinct paths for transmitting data to conclude these references are substantially the same prior art for the '649 patent. POPR 47.

The references cannot be the same because Mineno teaches the limitations that the Applicant argued were missing in Perkins. *The POPR does not dispute* that, unlike Perkins, Mineno teaches (a) multiple paths between a data-requesting

device and a network-edge device (Ex-1002, 000468-9; Pet. 65-67); and (b) different data being sent over different connections (Ex-1002, 000469; Pet. 67-68).

Becton Factor (f) weighs strongly against denial. The Petition presents evidence that was never before the Office, including explanations of how the **combinations** in Grounds 2 and 3 teach the challenged claims, supported by expert testimony from Dr. Lin which was not before the Examiner.

“The Board frequently holds that a reference that ‘was neither applied against the claims nor discussed by the Examiner’ does not weigh in favor of exercising the Board’s discretion under § 325(d) to deny a petition.” *Amazon.com, Inc. v. M2M Sols. LLC*, IPR2019-01204, Paper 14 at 16 (PTAB. Jan. 23, 2020); *Zip-Top LLC v. Stasher, Inc.*, IPR2018-01216, Paper 14 at 35–36 (PTAB Jan. 17, 2019); *see also, e.g., Shenzhen Zhiyi Tech. Co. v. iRobot Corp.*, IPR2017-02137, Paper 9 at 9–10 (PTAB Apr. 2, 2018); *Vizio, Inc. v. Nichia Corp.*, IPR2017-00551, Paper 9 at 7–8 (PTAB July 7, 2017).

Finally, the cases cited by PO are unlike the present case because the Petition and this Reply explain how the Examiner erred by focusing on the wrong (multicasting) prior art. In *Atrium*, the petitioner “**d[id] not attempt** to point to any error by the Examiner in the original prosecution[.]” *Atrium*, Paper 11 at 27. In *Roku*, the petitioner “d[id] not discuss factor (e) ... except for a single conclusory sentence....” *Roku*, Paper 11 at 18.

II. PO's Implicit Construction Is Incorrect.

While not requesting claim construction, PO argues that Claim 1 requires “*distinct* network-edge devices” (POPR, 21) that cannot be housed in the same physical station (POPR, 23-24). According to PO, separate radio elements (e.g., modems) are not distinct devices if they are part of the same mobile station. *Id.* But PO does not cite any support, intrinsic or extrinsic, for such a requirement.

The challenged claims do not state where network-edge devices are located or preclude them from being housed in the same station. The specification does not use the words “distinct” or “physically separate”; it does not explain what it would mean for devices to be distinct or how far apart they would need to be. Therefore, it is improper to import such a limitation into the claims.

The plain meaning of “devices” includes components inside a single computer. “[D]evice” is a “generic term for a computer subsystem” that includes multiple devices in a computer (Ex-1028, 000004) such as chips soldered (integrated) on a motherboard or connected via expansion slots (Ex-1029, 000004-10). Moreover, the radio element at issue here includes a wireless modem, which was known in the art as a “communications *device*[.]” Ex-1028, 000005.

Even under PO's construction, Ground 1 stands because Bender teaches a data-requesting device (processor) and several network-edge devices (radio elements) that are distinct devices within a mobile station, with each radio element

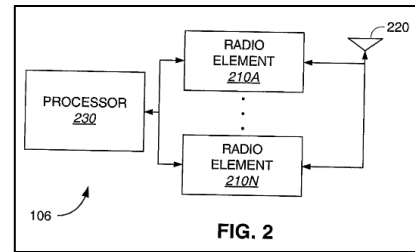
being a separate wireless modem or other such device.

Pet., 21-23; Ex-1003 ¶¶78-79; Ex-1004, Fig. 2.

Bender even teaches, as explained below, that the

radio elements may be in separate stations. Therefore, Bender teaches the

processor and each radio element as distinct devices within the mobile station.¹



The POPR did not articulate any reason why the data-requesting and network-edge devices must be physically separated by some distance, or any reason why they cannot be distinct devices in the same physical box (e.g., a processor and several wireless modems housed within a mobile station). But even if physical separation were required, the Petition explained how “*Bender teaches its processor and radio elements as separate devices*, either inside the same or separate mobile stations.” Pet. 23; Ex-1003 ¶¶80-83. For example, Bender explains that, while “the radio elements 210 were discussed in context of residing on a single mobile station[,]” “[t]he principles discussed herein translate readily to *radio elements residing on multiple mobile stations*[.]” Ex-1004 ¶42, Fig. 5. Dr. Lin explained why the combination with Maurya further confirms it was known and obvious for modem-type devices to be in the same physical housing or separate. Ex-1003 ¶¶80-83; Ex-1005, 11:40-56, 7:6-13, FIG. 6A.

¹ PO misrepresents the Petition, implying that Bender’s mobile station corresponds to the claimed data-requesting device. But the Petition explained how the mobile station’s *processor* satisfies the data-requesting device. Pet. 21-22.

Date: September 14, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on September 14, 2023, true and complete copies of the foregoing Petitioner's Preliminary Reply and Exhibits 1028 and 1029 were served via email to all parties to this proceeding at the addresses indicated:

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