

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

INTERDIGITAL PATENT HOLDINGS, INC.,
Patent Owner.

Case IPR2024-00538
U.S. Patent No. 9,173,054

PETITIONER'S REPLY TO THE PATENT OWNER RESPONSE

TABLE OF CONTENTS

	Page(s)
EXHIBIT LIST	iii
I. INTRODUCTION	1
II. THE GREAT-GRANDPARENT APPLICATION DOES NOT PROVIDE WRITTEN DESCRIPTION SUPPORT FOR THE CLAIMED METHOD	2
A. Disclosure Of A WTRU That Includes Both Bluetooth And Wi-Fi Technologies Is Insufficient To Convey Possession Of The Claims’ Specific Method.....	4
B. Even If Wi-Fi’s Known Benefits Rendered The Claims Obvious, That Is Not A Substitute For Written Description Support	8
C. The Inventor’s After-the-Fact ITC Testimony Cannot Provide Written Description Support For The Claims, And Indeed Confirms That The Great-Grandparent Application Lacks That Support	10
D. Written Description Support Would Have Required Much More Than What The Great-Grandparent Application Discloses	11
III. THE WRITTEN DESCRIPTION REQUIREMENT IS ESPECIALLY IMPORTANT HERE, WHERE THE CLAIMS WERE ADDED LATE, IN RESPONSE TO INDUSTRY DEVELOPMENTS	15
IV. CONCLUSION.....	20
CERTIFICATE OF COMPLIANCE.....	22
CERTIFICATE OF SERVICE	23

TABLE OF AUTHORITIES

Page(s)

Cases

<i>Ariad Pharms., Inc. v. Eli Lilly and Co.</i> , 598 F.3d 1336 (Fed. Cir. 2010)	3
<i>Hologic, Inc. v. Smith & Nephew, Inc.</i> , 884 F.3d 1357 (Fed. Cir. 2018)	7
<i>Hyatt v. Boone</i> , 146 F.3d 1348 (Fed. Cir. 1998)	9
<i>Lockwood v. American Airlines, Inc.</i> , 107 F.3d 1565 (Fed. Cir. 1997)	1, 2, 8, 10
<i>Novartis Pharms. Corp. v. Accord Healthcare, Inc.</i> , 38 F.4th 1013 (Fed. Cir. 2022)	20
<i>Quake v. Lo</i> , 928 F.3d 1365 (Fed. Cir. 2019)	6, 15, 19
<i>Reiffin v. Microsoft Corp.</i> , 214 F.3d 1342 (Fed. Cir. 2000)	20
<i>Vas-Cath Inc. v. Mahurkar</i> , 935 F.2d 1555 (Fed. Cir. 1991)	3

Rules

37 C.F.R. § 42.24	22
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EXHIBIT LIST

LIST OF NEWLY-FILED EXHIBITS

Exhibits concurrently filed with Petitioner’s Reply To The Patent Owner’s

Response:

No.	Description
1288	Reply Declaration of Peter Rysavy, dated December 23, 2024
1289	Erina Ferro & Francesco Potorti, <i>Bluetooth and Wi-Fi Wireless Protocols: a Survey and a Comparison</i> , IEEE Wireless Communications (February 2005)

LIST OF PREVIOUSLY FILED EXHIBITS

No.	Description
1201	U.S. Patent No. 9,173,054 (“ the ’054 patent ”)
1202	File History of U.S. Patent No. 9,173,054
1203	Declaration of Peter Rysavy, dated February 5, 2024 (“ Rysavy Decl. ”)
1204	U.S. Patent Application Pub. No. 2011/0083111 to Forutanpour et al. (“ Forutanpour ”)
1205	U.S. Patent Application Pub. No. 2008/0166967 to Christopher D. McKillop (“ McKillop ”)
1206	International Patent Application Pub. No. WO 2005/1072895 to J. Peter Hoddie (“ Hoddie ”)
1207	U.S. Patent Application Pub. No. 2007/0191028 to Hinckley et al. (“ Hinckley ”)
1208	Sidhu et al., <i>Emerging Wireless Standards – WiFi, ZigBee and WiMAX</i> , International Journal of Electronics and Communication Engineering Vol. 1 No. 1 (2007)

No.	Description
1209	Harry Newton, Newton’s Telecom Dictionary, 20 th Updated and Expanded Edition (excerpted) (2004)
1210	U.S. Patent Application Pub. No. 2009/0034498 to Banerjea et al. (“ Banerjea ”)
1211	N/A
1212	U.S. Patent Application Pub. No. 2007/0135046 to Kapur et al. (“ Kapur ”)
1213	U.S. Patent Application Pub. No. 2009/0215398 to Adler et al. (“ Adler ”)
1214	Bluetooth Specification Version 1.1, Vol. 2, “Profiles” (Feb. 22, 2001)
1215	Megowan et al., Infrared Data Association® (IrDA®) Object Exchange Protocol OBEX™ Version 1.3 (Jan. 3, 2003)
1216	Postel et al., RFC 959, File Transfer Protocol (FTP) (Oct. 1985)
1217	K. Sollins, RFC 1350, The TFTP Protocol (Revision 2) (Jul. 1992)
1218	Frodigh et al., <i>Wireless ad hoc Networking—The Art of Networking Without a Network</i> , Ericsson Review No. 4 (2000)
1219	U.S. Patent Application Pub. No. 2007/0146347 to Louis B. Rosenberg (“ Rosenberg ”)
1220	Cheverst et al., <i>Exploring Bluetooth Based Mobile Phone Interaction with the Hermes Photo Display</i> , Proceedings of the 7 th International Conference on Human Computer Interaction with Mobile Devices and Services (Sept. 2005)
1221	User’s Guide for Nokia N72 (2006)
1222	U.S. Patent No. 7,356,347 to David Kammer (“ Kammer ”)
1223	Phil Karn, <i>MACA - A New Channel Access Method for Packet Radio</i> , The Proceedings of the 9 th ARRL Computer Networking Conference (1990)

No.	Description
1224	Chatzimisios et al., <i>Optimisation of RTS/CTS Handshake in IEEE 802.11 Wireless LANs for Maximum Performance</i> , IEEE Communications Society Globecom 2004 Workshops (2004)
1225	Nokia 9500 Communicator User Guide (2004-2005)
1226	User's Guide for Nokia N95 (2007)
1227	U.S. Patent Application Pub. No. 2005/0113079 to Hui Guo (" Guo ")
1228	U.K. Patent Application Pub. No. GB 2,439,364 to Turner et al. (" Turner ")
1229	U.S. Patent Application Pub. No. 2004/0242216 to Demetrios Boutsikakis (" Boutsikakis ")
1230	U.S. Patent No. 7,043,548 to Stephane Bouet (" Bouet ")
1231	Brad A. Myers, <i>The Importance of Percent-Done Progress Indicators for Computer-Human Interfaces</i> , Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Apr. 1985)
1232	U.S. Patent Application Pub. No. 2009/0140986 to Karkkainen et al. (" Karkkainen ")
1233	U.S. Patent Application Pub. No. 2007/0124503 to Ramos et al. (" Ramos ")
1234	U.S. Patent No. 8,059,111 to Phil Harrison (" Harrison ")
1235	U.S. Patent Application Pub. No. 2006/0026521 to Hotelling et al. (" Hotelling '521 ")
1236	Westerman et al., <i>Multi-Touch: A New Tactile 2-D Gesture Interface For Human-Computer Interaction</i> , Proceedings of the Human Factor and Ergonomic Society 45 th Annual Meeting (2001)
1237	Jun Rekimoto, <i>Pick-and-Drop: A Direct Manipulation Technique for Multiple Computer Environments</i> , Proceedings of the 10th

No.	Description
	Annual ACM Symposium on User Interface Software and Technology (1997)
1238	U.S. Patent Application Pub. No. 2008/0009309 to Hwang-hyeon Gha (“ Gha ”)
1239	Pravin Bhagwat, <i>Bluetooth: Technology for Short-Range Wireless Apps</i> , IEEE Internet Computing, Vol. 5, Issue 3 (May-Jun. 2001)
1240	N/A
1241	N/A
1242	U.S. Patent Application Pub. No. 2003/0134629 to Ollis et al. (“ Ollis ”)
1243	N/A
1244	U.S. Patent Application Pub. No. 2006/0097991 to Hotelling et al., (“ Hotelling ’991 ”)
1245	U.S. Patent Application Pub. No. 2008/0168384 to Platzer et al. (“ Platzer ”)
1246	U.S. Patent No. 7,479,949 to Jobs et al., (“ Jobs ”)
1247	U.S. Patent Application Pub. No. 2008/0143685 to Lee et al. (“ Lee ”)
1248	File History of U.S. Patent No. 8,200,265
1249	U.S. Patent No. 8,200,265 to Carlton et al. (“ the ’265 patent ”)
1250	File History of U.S. Patent No. 8,478,207
1251	U.S. Patent No. 8,478,207 to Carlton et al. (“ the ’207 patent ”)
1252	N/A
1253	Bluetooth Specification Version 1.1, Vol. 1, “Core” (Feb. 22, 2001)
1254	European Patent Application Pub. No. 1,489,783 to Anders Angelhag (“ Angelhag ”)

No.	Description
1255	U.S. Patent Application Pub. No. 2005/0289195 to Lehtola et al. (“ Lehtola ”)
1256	N/A
1257	Information Disclosure Statement for Lehtola to U.S. Patent Application No. 10/875,079, filed June 23, 2004
1258	Affidavit of Nathaniel E. Frank-White, Records Request Processor at the Internet Archive (“Frank-White”) Authenticating Exhibits 1214-1215, 1253, and 1260-1262
1259	Affidavit of Scott Delman, Director of Publication at the Association for Computing Machinery Authenticating Exhibit 1220
1260	User Guide for Nokia N91 (2006)
1261	User Guide for Nokia N75 (2006)
1262	User Guide for Nokia 9300 (2005)
1263	N/A
1264	N/A
1265	David Pogue, iPhone The Missing Manual (1 st ed. Aug. 2007)
1266	U.S. Provisional Patent Application No. 61/140,126 to Carlton et al. (“ the ’126 provisional ”)
1267	U.S. Patent Application Pub. No. 2007/0011335 to Burns et al. (“ Burns ”)
1268	Yardena Arar, <i>Bluetooth to Work with Wi-Fi</i> , NetworkWorld (February 12, 2008)
1269	Staff’s Proposed Claim Constructions, <i>Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, And Components Thereof</i> , Inv. No. 337-TA-1373 (Dec. 4, 2023)
1270	InterDigital’s Proposed Claim Constructions, <i>Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, And Components Thereof</i> , Inv. No. 337-TA-1373 (Nov. 30, 2023)

No.	Description
1271	U.S. Patent No. 8,737,933 (“ the ’933 patent ”)
1272	File History of U.S. Patent No. 8,737,933
1273	N/A
1274	U.S. Patent Application Pub. No. 2005/0281237 to Heinonen et al. (“ Heinonen ”)
1275	Full Claims Listing (1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, 49-50)
1276	U.S. Patent No. 7,102,640 to Aholainen et al. (“ Aholainen ”)
1277	Bluetooth Technology To Harness The Speed Of 802.11, Feb 11, 2008
1278	Megowan et al., Infrared Data Association® (IrDA®) Object Exchange Protocol OBEX™ Version 1.5 (Aug. 14, 2009).
1279	U.S. Patent No. 7,333,514 to Anehem et al. (“ Anehem ”)
1280	N/A
1281	U.S. Patent Application No. 13/493,650 to Carlton et al. (“ 650 application ” or “ grandparent application ”)
1282	U.S. Patent Application No. 12/644,948 to Carlton et al. (“ 948 application ” or “ great-grandparent application ”)
1285	U.S. Patent Application No. 13/390,743 to Carlton et al. (“ 743 application ” or “ parent application ”)
1286	Defendant Lenovo’s Supplemental Notice Regarding Prior Art Invalidity Grounds, Document No. 96, Case No. 5:23-cv-00493 (E.D.N.C.)
1287	United States District Courts Judicial Caseload Profile

I. INTRODUCTION

The only issue in dispute is whether the great-grandparent application¹ provides written description support for the challenged claims. On this singular issue, the POR (Paper 14) reiterates the same unsuccessful arguments raised in the POPR (Paper 7), adds six pages of argument (Paper 14, 11-16), and cites additional testimony from the named inventor (*id.*, 22-23). This additional argument and testimony are unavailing and fail to show entitlement to the great-grandparent application's priority date.

Contrary to Patent Owner's arguments, the description of a device capable of communicating over Bluetooth and Wi-Fi does not provide sufficient written description support for the claimed method of performing one action (detecting other devices) over Bluetooth and then performing a different action (transferring media content to a detected device) over Wi-Fi. *E.g., id.*, 10-17. The great-grandparent

¹ Petitioner focuses on the great-grandparent application (the '948 application) because the POR focuses on the great-grandparent application, but these arguments apply equally to the grandparent application (the '650 application) since "each application in the chain ... must comply with the written description requirement." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997).

application does not describe using Wi-Fi for any particular action, much less the particular action claimed, much less within the particular method claimed.

The additional ITC testimony from the named inventor merely describes what he remembers contemplating roughly 16 years prior, rather than what he actually included in the great-grandparent application. Paper 14, 22-23. That testimony is irrelevant to the issue at hand. Written description support comes not from what an inventor had in mind or intended to convey, but from what the application actually discloses. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

The POR also reiterates the same legally incorrect assertion that the written description suffices because it was obvious to use Bluetooth for detection and Wi-Fi for data transfer. Paper 14, 19-20. But without more, disclosure that merely renders a claimed invention obvious is insufficient for written description support. *Lockwood*, 107 F.3d at 1572 (quoted by Institution Decision (Paper 10), 13-14, 18).

The Board should reject Patent Owner's arguments and find all challenged claims unpatentable.

II. THE GREAT-GRANDPARENT APPLICATION DOES NOT PROVIDE WRITTEN DESCRIPTION SUPPORT FOR THE CLAIMED METHOD

The great-grandparent application does not provide written description support because it does not convey with reasonable clarity that the inventors were in

possession of the claims' specific method that includes detecting another WTRU over Bluetooth and transferring media to the Bluetooth-detected WTRU over Wi-Fi (referred to herein as "the Bluetooth-to-Wi-Fi method"). *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991) (To satisfy the written description requirement, the earlier application must "convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in *possession of the invention.*"); *see also Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

The POR wrongly argues that the great-grandparent application provides written description support for the Bluetooth-to-Wi-Fi method because: (1) the great-grandparent application discloses that the WTRU includes both Bluetooth and Wi-Fi technologies (Paper 14, 10-17); (2) the great-grandparent application discloses using Bluetooth to detect another WTRU and POSITAs knew that Wi-Fi offers better transmission speeds than Bluetooth (*id.*, 19-20); and (3) a named inventor testified that he remembers contemplating a number of protocols for detection and transfer, including Bluetooth and Wi-Fi (*id.*, 22-23).

As explained in the Petition and below, the evidence shows that the great-grandparent application does not provide written description support for the challenged claims at least because it does even hint at, much less show possession of, a method that detects other devices over Bluetooth and then transfers media to

one of the detected devices over Wi-Fi. *See* Paper 3 (Petition), 21-30. One of the named inventors even admitted that “Wi-Fi is not specifically mentioned” for data transfer in the written description shared by the ’054 patent and its family members². EX2006, 155:2-11.

**A. Disclosure Of A WTRU That Includes Both
Bluetooth And Wi-Fi Technologies Is Insufficient
To Convey Possession Of The Claims’ Specific Method**

The POR wrongly alleges that the great-grandparent application provides written description support for the claims’ method because the great-grandparent application discloses a WTRU that includes both Bluetooth and Wi-Fi technologies. Paper 14, 10-17. It even goes so far as to allege that the great-grandparent application “expressly discloses each and every element of the Challenged Claims” (*id.*, 13-14), including “the claimed ‘species’ of WTRU detection (Bluetooth) and transmission (WiFi)” (*id.*, 28). *See also id.*, 15, 29-31. This is simply false.

As explained by Petitioner’s expert, Mr. Rysavy, the “description of the mere ability to use numerous communication technologies does not indicate a method

² The written description and figures of the challenged patent and the ancestor applications have no material differences, as acknowledged by the POR (*e.g.*, Paper 14 at 10, 26, 32), and so any reference to the written description is a reference to the written description for all applications in the chain.

using just two of these technologies, each for a particular operation, in the particular manner claimed by the [challenged] patent.” EX1203, ¶69 (cited by Petition (Paper 3), 28). Although the great-grandparent application discloses using a Bluetooth service discovery protocol (SDP) to gather environment information about nearby WTRUs (EX1282, [0034]), it nowhere suggests using a different protocol for transfer of media content to a detected WTRU (much less to use Wi-Fi, specifically). Paper 3, 23-30; EX1203, ¶¶64-70. As Mr. Rysavy explained, the written description “does not say which protocol to use for the transfer, gives no indication that the WTRU makes a decision as to which protocol to use for data transmission, and does not provide any indication that the protocol used for data transmission is different than the protocol used for device detection.” *Id.*, ¶69. To the contrary, he explained, “the [] application is altogether silent on which communication protocol / technology to use for the transfer, leading a POSITA to understand that the same protocol used for device detection is also used for the transfer.” *Id.*; *see also* EX2006, 155:2-11 (testimony from named inventor admitting that the written description does not specifically mention Wi-Fi for transferring data).

Thus, the great-grandparent application at best provides written description support for using a single protocol (e.g., Bluetooth)—and that protocol alone—for both device detection and media content transfer. The great-grandparent application not only fails to provide express disclosure for the claimed Bluetooth-to-Wi-Fi

method, it also fails to provide blaze marks that reasonably convey to a person skilled in the art that the inventor had possession of this claimed methodology. *Quake v. Lo*, 928 F.3d 1365, 1374 (Fed. Cir. 2019) (Although “*ipsis verbis* disclosure is not necessary to satisfy the written description requirement of section 112 ... the disclosure [must] reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question. ... This court has analogized such a disclosure as marking trails by making blaze marks on trees to find one’s way through the woods of a specification such that a skilled artisan would be able to follow that trail and understand what the inventors had invented.”) (cleaned up) (internal quotations omitted).

The POR wrongly asserts that this case does not relate to “whether an entire claim limitation is missing from the disclosure in the specification.” Paper 14, 30. As correctly found in the Institution Decision, the great-grandparent application simply fails to disclose the independent claims’ limitations of detecting another WTRU over Bluetooth and then transferring data to that WTRU over Wi-Fi. Paper 10, 19 (“The written description in the great-grandparent application does not describe an apparatus [] that is already configured to operate as described in claim 23, without further programming or modification, by detecting another WTRU using Bluetooth technology and then transferring data to that target WTRU via Wi-Fi.”). The great-grandparent application simply does not disclose using different protocols

to perform different actions, let alone using Wi-Fi to transfer content to a device after having detected that device using Bluetooth.

Although a predictable art may require less detail than an unpredictable art (*see* Paper 14, 26-29), the complete lack of disclosure in the great-grandparent application fails to satisfy the written description requirement, even if *arguendo* this were a more predicable field. Unlike the *Hologic* case cited by Patent Owner (*id.*, 16-17, 27, 29), the great-grandparent application here contains *no* detail on the claimed switch. In *Hologic*, the Federal Circuit upheld the PTAB’s finding that the ancestor application provided written description support for the claims’ “light guide” because the earlier application disclosed a “fibre optics bundle” and “the parties d[id] not dispute that a ‘fibre optic bundle’ is a type of light guide.” *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1362 (Fed. Cir. 2018). Here, by contrast, the great-grandparent application does not even disclose transferring content to another device over Wi-Fi, let alone doing so after having detected the other device over Bluetooth. The great-grandparent application simply does not disclose the claims’ use of a different communication technology for transferring content than for detecting other devices and does not disclose switching between different communication technologies to perform the claimed detection and transfer actions.

In sum, a device's inclusion of two technologies is insufficient to provide written description support for a claimed method that recites a particular, ordered use of those technologies for specific tasks. EX1203, ¶69; *see also* Paper 8 (Reply to POPR), 3; Paper 3 (Petition), 24-26. The great-grandparent application's disclosure that the WTRUs include Bluetooth and Wi-Fi technologies does not convey with reasonable clarity to those skilled in the art that the inventors were in possession of the claims' specific method of transferring media content to a WTRU over a different technology—specifically Wi-Fi—than the Bluetooth technology over which the WTRU was initially detected.

B. Even If Wi-Fi's Known Benefits Rendered The Claims Obvious, That Is Not A Substitute For Written Description Support

Despite well-established case law that obviousness alone is not enough to provide written description support, the POR nonetheless argues that the great-grandparent application provides written description support for the claims' Bluetooth-to-Wi-Fi method because it was "well-known that WiFi offered better transmission speeds as an advantage over Bluetooth." Paper 14 (POR), 20; *see also id.*, 19; Paper 3 (Petition), 23-24; Paper 8 (Reply to POPR), 3; Paper 10 (Institution Decision), 18 ("One cannot satisfy the written description argument by showing that a claimed invention would have been obvious in light of the disclosure found in an ancestor application."); *Lockwood*, 107 F.3d at 1572 ("One shows that one is 'in

possession’ of the *invention* by describing the *invention*, with all its claimed limitations, not that which makes it obvious.”); *id.* (“It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose.”); *Hyatt v. Boone*, 146 F.3d 1348, 1353–54 (Fed. Cir. 1998) (“It is ‘not a question of whether one skilled in the art *might* be able to construct the patentee’s device from the teachings of the disclosure.... Rather, it is a question whether the application necessarily discloses that particular device.’”) (citations omitted).

Thus, even assuming it was “well-known that WiFi offered better transmission speeds as an advantage over Bluetooth” (Paper 14, 20), this is insufficient to provide written description support for a method that involves switching to Wi-Fi to transfer content to another WTRU after first detecting that other WTRU over Bluetooth. The great-grandparent application does not even suggest using a different protocol for the transfer than for the detecting. Whether it would have been obvious to transfer over Wi-Fi based on what was well known in the art is not sufficient to satisfy the written description requirement.

C. The Inventor’s After-the-Fact ITC Testimony Cannot Provide Written Description Support For The Claims, And Indeed Confirms That The Great-Grandparent Application Lacks That Support

The POR wrongly argues that the inventor’s ITC testimony provides written description support because the inventor allegedly recalls contemplating Bluetooth and Wi-Fi roughly 16 years prior. Paper 14, 20-26.

As explained in the Preliminary Reply and in the Board’s Institution Decision, written description support is not based on what an inventor “had in mind” or intended to convey in an application. Paper 8, 4; *see also* Paper 10, 18. Instead, it is based on what an inventor actually disclosed in the application. *See Lockwood*, 107 F.3d at 1571–72. Whether or not an inventor is a competent witness to explain what was intended to be conveyed by the specification, as argued by the POR (Paper 14, 21), such testimony is irrelevant for the written description requirement, which is concerned only with what the specification actually discloses. *Id.* Thus, even assuming the inventor’s testimony about what he remembers contemplating 16 years prior were true, accurate, and free from bias (which Petitioner contests), this testimony should be given no weight because it has no place in the written description analysis.

Moreover, the inventor’s testimony confirms that the great-grandparent application does not describe transferring content to a WTRU over Wi-Fi, much less

after having detected the WTRU over Bluetooth. Specifically, when the inventor was asked whether it was fair to characterize the application as not specifically disclosing “using WiFi to transfer data,” the inventor responded affirmatively: “If you’re saying that WiFi is not specifically mentioned, no, it’s not specifically mentioned.” EX2006, 155:2-11.

Thus, the inventor’s after-the-fact testimony on what he “had in mind” or intended to convey should be excluded or given no weight. And his testimony on the ultimate issue of what the great-grandparent application discloses (or rather, does not disclose) shows that the great-grandparent application fails to provide written description support.

D. Written Description Support Would Have Required Much More Than What The Great-Grandparent Application Discloses

Written description support for the claims would have required more than what can be found in the great-grandparent application. For example, a POSITA would have expected the application to at least expressly disclose using a different protocol for data transfer than for device detection and to specifically disclose using Wi-Fi for data transfer. The numerous Bluetooth-to-Wi-Fi background references cited in the Petition include such descriptions, confirming what a POSITA would

have expected from an application that showed possession of a method involving such a switch. *E.g.*, Paper 3, 8-9. For example:

- **Mckillop** discloses: “[T]he portable device includes circuitry for providing wireless communications utilizing a low power, relatively slow communications protocol, such as Bluetooth, to establish a communications path between two wireless devices. When high speed communications are preferred, the two devices can agree to switch to a different, high speed protocol, such as Wi-Fi, for communications.” EX1205, Abstract. *See also id.*, [0002], [0006-7], [0013-18], [0034], [0038], [0042-47], claims 2-4, FIGS. 2, 4.
- **Hoddie** discloses: A device “searches for other devices available for communication using Bluetooth.” EX1206, 3:30-31. The device “sends the file to the [other device] across [a] Wi-Fi connection.” *Id.*, 4:21. *See also id.*, 3:16-3:29, 3:31-4:20, 4:22-6:11, 9:9-14:9, claims 2, 4, FIGS 3-4.
- **Banerjea** discloses: “First, a Bluetooth connection (BT connection) 110 may be established between the mobile communication devices 102 and 104 through a Bluetooth scanning and discovery process Once the BT connection 110 is established ... a WiFi connection 112 may be established between the mobile communication devices 102

and 104.” EX1210, [0026]. “Multimedia data may be transmitted over the WiFi connection 112.” *Id.*, [0027]. *See also id.*, [0008-10], [0037-47].

- **Kapur** discloses: “[T]he Bluetooth® device 1002 may utilize its Bluetooth® protocol stack to discover the second Bluetooth® device 1004. The Bluetooth® device 1002 and 1004 may be enabled to communicate via a Bluetooth® connection 1006 and/or a high-speed data connection 1008. The high-speed data connection 1008 may comprise an 802.11 [(WiFi)] connection. ... Once the high-speed data link 1008 is established, data may be communicated between the Bluetooth® devices 1002 and 1004 using data rates that may be higher than the data rates supported by the Bluetooth® connection 1006.” EX1212, [0066]. *See also id.*, [0022], [0029], [0065].
- **Adler** discloses: “[E]stablishing a first connection between a first device and a second device with a first networking standard ... establishing a second connection between the first device and the second device with a second networking standard ... [and] transferring data between the first and second devices using the second networking standard ... [wherein] the first networking standard is a Bluetooth networking standard and the second networking standard is a WiFi

networking standard.” EX1213, Abstract. *See also id.*, [0006-8], [0038-56], claim 5.

EX1288, ¶8.

Each of these other patents or applications provide detailed descriptions of using Bluetooth to detect other devices and then Wi-Fi to transmit data to a detected device. The great-grandparent application lacks even a single sentence suggesting that the named inventors might have contemplated such a method. EX1288, ¶9.

The POR wrongly suggests that the “transmission instructions” described by the great-grandparent application (*e.g.*, EX1282, [0039]) somehow lend written description support for the claims. *E.g.*, Paper 14, 18-20. Not so. Nothing in paragraph 39 or any other paragraph of the great-grandparent application suggests switching from the protocol used for detection to a different protocol for data transfer. As explained by Mr. Rysavy, if the transmission instructions related to a switch, then, barring express disclosure of such a switch, one of ordinary skill in the art would at least expect disclosure of a change in an attribute that implicates a change in protocol, such as a change in the radio signal transmission and/or multiplexing techniques at Layer 1 (the physical layer). EX1289, 12, 14, 16-17, 21. For example, Bluetooth and Wi-Fi use completely different radio signal multiplexing techniques: Bluetooth uses a frequency hopping spread spectrum (FHSS) with 1 MHz wide channels, while Wi-Fi uses different direct sequence

spread spectrum (DSSS), complementary code keying (CCK), and orthogonal frequency-division multiplexing (OFDM) with about 16 MHz wide channels. *Id.* The great-grandparent application, however, does not mention any change in the radio signal transmission and/or multiplexing techniques at Layer 1, leading a POSITA to understand that there is no protocol switch, and that instead, the same protocol that was used for detection is also used for data transfer. EX1288, ¶¶10-11.

In sum, if Patent Owner truly possessed a method that involved using Bluetooth for detection and Wi-Fi for data transfer, then the application could easily have said so, even if just with a sentence or two. The application is silent, however, and a POSITA would have reasonably understood that the same communications protocol is used for both detection and data transfer. Thus, the great-grandparent application does not convey with reasonable clarity that the inventors were in possession of the claimed Bluetooth-to-Wi-Fi method. EX1288, ¶12.

III. THE WRITTEN DESCRIPTION REQUIREMENT IS ESPECIALLY IMPORTANT HERE, WHERE THE CLAIMS WERE ADDED LATE, IN RESPONSE TO INDUSTRY DEVELOPMENTS

The written description requirement “is particularly important when, as here, claims are added later during prosecution in response to development by others.” *Quake*, 928 F.3d at 1373. As noted in the Petition (Paper 3, 24), Patent Owner first pursued and obtained claims in the parent application on the gesture-based sending of content that is the focus of the specification. EX1249, *passim*; EX1251, *passim*.

It was not until after Apple released AirDrop for iPhones³ that Patent Owner shifted course and drafted new claims attempting to cover AirDrop by reciting the claims' Bluetooth-to-Wi-Fi methodology. EX1272, 88-102.

Specifically, Patent Owner filed the great-grandparent application (the '948 application) with broad claims directed to identifying a candidate WTRU based on user input.

1. A method for controlling communication of data in wireless communications, implemented in a wireless transmit/receive unit (WTRU), the method comprising:

detecting environment information relating to at least one candidate WTRU operating in a local area associated with the WTRU;

receiving user input;

processing the user input and the environment information; and

identifying at least one candidate WTRU as a target WTRU based at least in part on the user input, and wherein

³ In related IPR2024-00306, Patent Owner contends that AirDrop for iPhones was released on September 18, 2013. Paper 22, 10. The claimed Bluetooth-to-Wi-Fi methodology was added by amendment just over two months later, on November 19, 2013. EX1272, 88-104.

the user input relates to a selection of data for transfer between the WTRU and the target WTRU.

EX1282 (as-filed great-grandparent application), 18 (claim 1).

Patent Owner was forced to narrow the claims to recite, *inter alia*, that the user input indicates at least a direction for the transfer, i.e., gestural input. EX1248, 167-168, 178, 181-188.

1. A method for controlling communication of data in wireless communications, implemented in a wireless transmit/receive unit (WTRU), the method comprising:

detecting, at the WTRU, environment information relating to at least one candidate WTRU operating in a local area associated with the WTRU;

receiving, at the WTRU, **user input that indicates at least a direction and a selection of data for transfer between the WTRU and a target WTRU;**

processing, at the WTRU, the user input and the environment information;

identifying, at the WTRU, at least one candidate WTRU as the target WTRU based at least in part on the user input; and,

transmitting the data to the target WTRU.

EX1249 (issued great-grandparent patent), 10:51-65 (claim 1) (emphasis added).

When filing the grandparent application (the '650 application), Patent Owner expressly recited that the user input is gestural input and the claims were allowed as such.

1. A method for use in a wireless transmit/receive unit (WTRU), the method comprising:

detecting, at the WTRU, information relating to at least one candidate WTRU in a geographic area associated with the WTRU;

receiving, at the WTRU, user input that includes a **gestural input** and a selection of data for transfer between the WTRU and a target WTRU;

processing, at the WTRU, the user input and the information;

identifying, at the WTRU, the target WTRU from the at least one candidate WTRU based at least in part on the user input; and

transmitting the selected data to the target WTRU.

EX1281 (as-filed grandparent application), 18 (claim 1) (emphasis added).

1. A method for use in a wireless transmit/receive unit (WTRU), the method comprising:

detecting, at the WTRU, information relating to at least one candidate WTRU in a geographic area associated with the WTRU;

receiving, at the WTRU, user input that includes a **gestural input** and a selection of data for transfer between the WTRU and a target WTRU;

processing, at the WTRU, the user input and the information;

identifying, at the WTRU, the target WTRU from the at least one candidate WTRU based at least in part on the user input; and

transmitting the selected data to the target WTRU.

EX1251 (issued grandparent patent), 10:52-65 (claim 1) (emphasis added).

In filing the application that would later lead to the '933 patent (the parent of the '054 patent), Patent Owner included identical claims, with this gestural input limitation. EX1272, 34. Then, just over two months after Apple released AirDrop for iPhones, Patent Owner cancelled the pending claims and added new claims directed to the Bluetooth-to-Wi-Fi method. EX1272, 88-104. The Examiner then allowed the claims. *Id.*, 108-113.

The written description requirement is especially important to guard against this kind of overreaching where a Patent Owner claims more than what they originally disclosed in an attempt to cover a competitor product. *Quake*, 928 F.3d at 1373. Because Patent Owner did not disclose or even suggest using different protocols for detection and data transfer, let alone using Wi-Fi, specifically, for the transfer after having used Bluetooth to detect the device, Patent Owner is not entitled

to claim priority to the filing dates of the earlier applications in the family. Finding otherwise would undermine the very purpose of the written description requirement's *quid pro quo* by allowing Patent Owner to overreach beyond what it originally disclosed. *E.g.*, *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1016 (Fed. Cir. 2022) (“Disclosure is essential; it is the *quid pro quo* of the right to exclude.”) (internal quotation marks omitted); *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345 (Fed. Cir. 2000) (“The purpose of this provision is to ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor's contribution to the field of art as described in the patent specification”).

In sum, Patent Owner described and claimed gesture-based sending of content. After AirDrop was released, Patent Owner then claimed something else that was not described in the specification—using Bluetooth for detecting nearby devices and Wi-Fi for transferring content to a detected device. The written description requirement prohibits this kind of overreaching. As such, the challenged patent's effective filing date should be limited to the filing date of the application that led to the '933 patent—no earlier.

IV. CONCLUSION

For at least these reasons, the Board should maintain its findings in the Institution Decision. The challenged claims are not entitled to the filing dates of the

grandparent and great-grandparent applications because they do not provide written description support for the challenged claims, including detecting nearby devices over Bluetooth and then transferring content to a detected device over Wi-Fi. As such, the Forutanpour reference is prior art and every challenged claim should be cancelled based on the unpatentability grounds raised in the Petition. The POR does not challenge the substance of these unpatentability grounds, only whether Forutanpour is prior art. Since Patent Owner's written description argument fails, its entire case fails.

Respectfully submitted,

Dated: December 30, 2024

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**CERTIFICATE OF COMPLIANCE WITH
TYPE-VOLUME LIMITATION PURSUANT TO 37 C.F.R. § 42.24**

This brief complies with the type-volume limitation of 37 C.F.R. § 42.24
(a)(1)(i).

The brief contains **4,162** words, excluding the parts of the brief exempted by
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CERTIFICATE OF SERVICE
IN COMPLIANCE WITH 37 C.F.R. § 42.6(E)(4)

The undersigned certifies that on December 30, 2024, a complete copy of
PETITIONER'S REPLY TO THE PATENT OWNER RESPONSE and
EXHIBITS 1288-1289 were served on counsel for the Patent Owner via electronic
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