

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

INTERDIGITAL PATENT HOLDINGS, INC.,
Patent Owner.

IPR2024-00538
U.S. Patent No. 9,173,054
Issued: October 27, 2015
Application No. 14/251,383
Filed: April 11, 2014

Title: DATA TRANSFER BETWEEN WIRELESS DEVICES

PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 9,173,054

TABLE OF CONTENTS

	Page
LIST OF EXHIBITS.....	vii
MANDATORY NOTICES UNDER 37 C.F.R. § 42.8	xiii
1. Real Party-In-Interest.....	xiii
2. Related Matters	xiii
3. Lead And Back-Up Counsel, And Service Information.....	xiv
I. INTRODUCTION	1
II. GROUNDS FOR STANDING PER 37 C.F.R. § 42.104(a)	2
III. IDENTIFICATION OF CHALLENGE	2
A. Statement Of The Precise Relief Requested / Statutory Grounds.....	2
B. Denial Under § 325(d) Is Improper.....	3
C. <i>Fintiv</i> Denial Is Improper	3
D. <i>General Plastic</i> Denial Is Improper	4
IV. STATE OF THE ART	7
A. Bluetooth And Wi-Fi Were Ubiquitous	7
B. Bluetooth For Discovery, Wi-Fi For Data Transfers	8
C. Prompting Recipients To Accept Or Deny A File Transfer.....	9
D. Request To Send And Acceptance To Transfer	11
E. Touchscreens	14
V. THE '054 PATENT	15
A. The '054 Patent's Specification	16
B. The Prosecution History	17
C. Claims Listing	17

VI.	LEVEL OF SKILL IN THE ART	18
A.	Person Of Ordinary Skill In The Art.....	18
VII.	CLAIM CONSTRUCTION	18
VIII.	THE EARLIEST POSSIBLE EFFECTIVE FILING DATE FOR THE CHALLENGED CLAIMS IS APRIL 11, 2014.....	19
A.	The Parent and Grandparent Applications Do Not Provide § 112 Written Description Support For A Method That (1) Uses Bluetooth To Detect Nearby Devices And Then (2) Uses WiFi To Transfer A Media Element To A Selected Nearby Device	21
B.	Patent Owner Will Be Unable To Meet Its Burden Of Production To Show That Each Challenged Claim Has Section 112 Support In The Parent Application	31
IX.	GROUND 1-2: CLAIMS 1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, AND 49-50 ARE ANTICIPATED BY AND/OR OBVIOUS OVER FORUTANPOUR	33
A.	Forutanpour (EX1204) Is Presumptively Prior Art.....	33
B.	Detailed Claim Mapping For Claims 1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, And 49-50	37
1.	Claim 1	37
a)	Element 1.1	38
b)	Element 1.2	38
c)	Element 1.3	40
d)	Element 1.4	41
e)	Elements 1.5-1.6	42
f)	Element 1.7	43
2.	Claim 3	44
3.	Claim 4	46
4.	Claim 5	46

5.	Claim 6.....	47
6.	Claim 7.....	48
7.	Claim 8.....	48
8.	Claim 9.....	48
9.	Claim 10.....	49
10.	Claim 12.....	50
11.	Claim 14.....	51
12.	Claim 15.....	52
13.	Claim 21	53
14.	Claims 46-47	55
15.	Claims 23, 25-32, 34, 36-37, 43, 49-50	57
X.	GROUND 3: CLAIMS 3 And 25 ARE OBVIOUS OVER FORUTANPOUR AND HINCKLEY	58
XI.	GROUND 4: CLAIMS 12 And 34 ARE OBVIOUS OVER FORUTANPOUR AND HODDIE.....	59
XII.	GROUND 5: CLAIMS 10 And 32 ARE OBVIOUS OVER FORUTANPOUR AND HEINONEN	61
XIII.	CONCLUSION.....	62
	CERTIFICATE OF COMPLIANCE.....	63
	CERTIFICATE OF SERVICE	64

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Ariad Pharms., Inc. v. Eli Lilly and Co.</i> , 598 F.3d 1336 (Fed. Cir. 2010)	21, 23
<i>Columbia Ins. Co. v. Simpson Strong-Tie Co.</i> , Nos. 2021-2145, 2021-2157, 2023 WL 2733427 (Fed. Cir. Mar. 31, 2023)	21
<i>D Three Enters., LLC v. SunModo Corp.</i> , 890 F.3d 1042 (Fed. Cir. 2018)	32
<i>Flash-Control, LLC v. Intel Corp.</i> , No. 2020-2141, 2021 WL 2944592 (Fed. Cir. July 14, 2021)	30
<i>Hyatt v. Dudas</i> , 492 F.3d 1365 (Fed. Cir. 2007)	23, 30
<i>In re Hogan</i> , 559 F.2d 595, 194 USPQ 527 (CCPA 1977)	19
<i>In re Katz</i> , 639 F.3d 1303 (Fed. Cir. 2011)	32
<i>Keynetik, Inc. v. Samsung Elecs. Co.</i> , No. 2022-1127, 2023 WL 2003932 (Fed. Cir. Feb. 15, 2023)	46
<i>LizardTech, Inc. v. Earth Res. Mapping, Inc.</i> , 424 F.3d 1336 (Fed. Cir. 2005)	29
<i>Lockwood v. Am. Airlines, Inc.</i> , 107 F.3d 1565 (Fed. Cir. 1997)	19, 22, 23, 24
<i>Nat. Alts. Int’l, Inc. v. Iancu</i> , 904 F.3d 1375 (Fed. Cir. 2018)	31, 33
<i>PowerOasis, Inc. v. T-Mobile USA, Inc.</i> , 22 F.3d 1299 (Fed. Cir. 2008)	19

<i>Purdue Pharma L.P. v. Faulding Inc.</i> , 230 F.3d 1320 (Fed. Cir. 2000)	26
<i>Reiffin v. Microsoft Corp.</i> , 214 F.3d 1342 (Fed. Cir. 2000)	21
<i>Research Corp. Techs., Inc. v. Microsoft Corp.</i> , 627 F.3d 859 (Fed. Cir. 2010)	31
<i>Rivera v. Int’l Trade Comm’n</i> , 857 F.3d 1315 (Fed. Cir. 2017)	24
<i>Taylor v. Iancu</i> , 809 F. App’x 821 (Fed. Cir. 2020)	30
<i>Tech. Licensing Corp. v. Videotek, Inc.</i> , 545 F.3d 1316 (Fed. Cir. 2008)	31
<i>Tronzo v. Biomet, Inc.</i> , 156 F.3d 1154 (Fed. Cir. 1998)	23
<i>Univ. of Rochester v. G.D. Searle & Co.</i> , 358 F.3d 916 (Fed. Cir. 2004)	21
<i>Vas-Cath Inc. v. Mahurkar</i> , 935 F.2d 1555 (Fed. Cir. 1991)	23
<i>Zenon Env’t, Inc. v. U.S. Filter Corp.</i> , 506 F.3d 1370 (Fed. Cir. 2007)	22

Board Decisions

<i>Amazon.com, Inc. v. Personalized Media Commc’ns, LLC</i> , IPR2014-01527, 2016 WL 7047090 (PTAB Aug. 31, 2016)	32
<i>Apple Inc. v. Sonrai Mem. Ltd.</i> , IPR2023-00975, Paper 9 (PTAB Dec. 14, 2023)	4
<i>Aquestive Therapeutics, Inc. v. Neurelis, Inc.</i> , Case IPR2019-00451, Paper No. 14 (PTAB Sept. 27, 2019)	32
<i>Code200, UAB v. Bright Data Ltd.</i> , IPR2022-00861, Paper 18 (PTAB Aug. 23, 2022)	4, 5, 6

<i>Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha</i> , IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017)	4, 6
<i>Inguran LLC v. Premium Genetics (UK) Ltd.</i> , Case PGR2015-00017, Paper No. 22 (PTAB Dec. 20, 2016).....	32
<i>MaxLite, Inc. v. Jiaxing Super Lighting Elec. Appliance Co.</i> , IPR2020-00208, Paper No. 14 (PTAB Jun. 1, 2021).....	32
<i>Mylan Pharm. Inc., v. Regeneron Pharm., Inc.</i> , IPR2022-01226, Paper 22 (PTAB Jan. 11, 2023)	3

Statutes

35 U.S.C. § 102	passim
35 U.S.C. § 103	2
35 U.S.C. § 112	passim
35 U.S.C. § 120	19, 30, 31, 33
35 U.S.C. § 314	3
35 U.S.C. § 325	3

Other Authorities

Consolidated Trial Practice Guide (November 2019)	4
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Rules

37 C.F.R. § 42.104	2
37 C.F.R. § 42.24	63
37 C.F.R. § 42.6	64

LIST OF 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)
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)

No.	Description
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)
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 ”)

No.	Description
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 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 ”)

No.	Description
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 ”)
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)

No.	Description
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)
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).

No.	Description
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 ”)

MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

1. Real Party-In-Interest

Microsoft Corporation files this Petition because Patent Owner has sued Microsoft’s customers in the ITC and Eastern District of North Carolina for allegedly infringing the ’054 patent. Microsoft has had sole control over this Petition and is the real party in interest (“RPI”) for this Petition. For completeness, Microsoft also identifies its customers Lenovo (United States), Inc., Lenovo PC HK Limited, Lenovo Group Limited, and Motorola Mobility LLC—which have been named as defendants in the District Court proceeding or respondents in the ITC proceeding or both—as additional RPIs for this Petition.

2. Related Matters

On December 20, 2023, barely seven weeks ago, Petitioner filed a petition for *inter partes* review challenging the same claims of the ’054 patent but assuming an earlier effective filing date. *Microsoft Corp., v. InterDigital Pat. Holdings, Inc.*, IPR2024-00306 (PTAB), filed December 20, 2023.

The ’054 patent (EX1201) also has been asserted in the following litigations:

- *Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, And Components Thereof*, Inv. No. 337-TA-1373 (ITC), filed September 1, 2023; and

- *InterDigital, Inc. et al. v. Lenovo Group Ltd. et al.*, Case No. 5:23-cv-00493-FL (E.D.N.C.), filed September 1, 2023.

Contemporaneous with the filing of this Petition, Petitioner files a petition challenging claims of U.S. Patent No. 8,737,933, to which the '054 patent alleges priority and which shares common claims of priority to the same ancestor applications. On December 20, 2023, Petitioner filed a first petition in challenging those same claims of U.S. Patent No. 8,737,933. *See* IPR2024-00305.

3. Lead And Back-Up Counsel, And Service Information

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Pursuant to 37 C.F.R. § 42.10(b), concurrently filed with this Petition is a Power of Attorney executed by Petitioner and appointing the above counsel.

I. INTRODUCTION

Microsoft Corporation (“Petitioner”) respectfully requests *inter partes* review (“IPR”) and cancellation of claims 1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, and 49-50 of U.S. Patent No. 9,173,054 (EX1201, “’054 patent”), allegedly assigned to InterDigital Patent Holdings, Inc. (“Patent Owner”).

Petitioner previously filed a petition challenging the same claims, assuming an effective filing date of December 23, 2008, the provisional application’s filing date. The challenged claims, however, are not entitled to this date or the dates of any of the ancestor applications: not the 2009 great-grandparent, the 2012 grandparent, or the 2013 parent. None of these ancestor applications provides 35 U.S.C. § 112 written description support for a method that detects other devices using Bluetooth and then transfers a file to one of the detected devices using WiFi (or circuitry configured to carry out this method), as required by all challenged claims. *See infra* Section VIII. Thus, the earliest possible effective filing date for the ’054 patent is its application’s filing date: April 11, 2014. Under this later effective filing date, intervening prior art reference Forutanpour (EX1204) anticipates at least 26 of the 30 challenged claims and renders every challenged claim obvious either alone or in combination with other secondary references.

II. GROUND FOR STANDING PER 37 C.F.R. § 42.104(a)

Petitioner certifies that the '054 patent is available for IPR and that Petitioner is not barred or estopped from requesting an IPR challenging the patent claims on the grounds identified in this petition.

III. IDENTIFICATION OF CHALLENGE

A. Statement Of The Precise Relief Requested / Statutory Grounds

Petitioner requests *inter partes* review of claims 1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, and 49-50 (the “Challenged Claims”) of the '054 patent, on the following statutory grounds:

Ground	Reference(s)	Basis	Claims
1	Forutanpour (EX1204)	35 U.S.C. § 102	1, 4-9, 12, 14-15, 21, 23, 26-31, 34, 36-37, 43, 46-47, 49-50
2	Forutanpour (EX1204)	35 U.S.C. § 103	1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, 49-50
3	Forutanpour (EX1204) and Hinckley (EX1207)	35 U.S.C. § 103	3, 25
4	Forutanpour (EX1204) and Hoddie (EX1206)	35 U.S.C. § 103	12, 34
5	Forutanpour (EX1204) and Heinonen (EX1274)	35 U.S.C. § 103	10, 32

B. Denial Under § 325(d) Is Improper

The prior art references relied on herein (Forutanpour, Hinckley, Hoddie, and Heinonen) were not cited or substantively addressed on the record during prosecution, and nothing suggests that their teachings relied on herein—much less the combination of those teachings as informed by a POSITA’s knowledge and expert testimony—were considered by the Examiner. *See, e.g., Mylan Pharm. Inc., v. Regeneron Pharm., Inc.*, IPR2022-01226, Paper 22 at 16 (PTAB Jan. 11, 2023). Further, this petition relies on new primary reference Forutanpour that was not cited in the previously filed petition. Accordingly, this petition should not be denied under Section 325(d).

C. Fintiv Denial Is Improper

There is no basis for discretionary denial under Section 314(a) due to the parallel district court proceeding because the district court complaint was served less than five months ago, on September 19, 2023, and there is not yet a trial date. Moreover, that complaint identified only the independent claims of the ’054 patent. The dependent claims challenged in this petition were first asserted by Patent Owner in its infringement contentions served December 4, 2023, barely two months before the filing of this petition.

D. General Plastic Denial Is Improper

Barely seven weeks ago, on December 20, 2023, Petitioner filed a first petition challenging the same claims of the '054 patent based on grounds that assume the challenged claims are entitled to an effective filing date of December 23, 2008. *See* IPR2024-00306. In that proceeding, there has been no institution decision and the patent owner preliminary response is not due until March 28, 2024.

The Board has found two similarly situated petitions “are parallel petitions and not serial petitions.” *E.g., Apple Inc. v. Sonrai Mem. Ltd.*, IPR2023-00975, Paper 9 at 13-14 (PTAB Dec. 14, 2023) (citing Consolidated Trial Practice Guide (November 2019), 59 (explaining that parallel petitions are “[t]wo or more petitions filed against the same patent at or about the same time (e.g., before the first preliminary response by the patent owner)”).

Even if these were considered serial petitions, the *General Plastic* factors weigh against discretionary denial. *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i) (“*General Plastic*”).

Factors 1-3 weigh against discretionary denial. In the precedential *Code200, UAB v. Bright Data Ltd.* decision, Director Vidal clarified that “[w]here the first-filed petition under factor 1 ... was not evaluated on the merits, [*General Plastic*] factors 1–3 only weigh in favor of discretionary denial when there are ‘road-

mapping’ concerns under factor 3 or other concerns under factor 2.” IPR2022-00861, Paper 18 at 5 (PTAB Aug. 23, 2022) (*Code200*). Here, the first-filed petition has not been evaluated on the merits and there are no road-mapping concerns because Petitioner has not yet seen a preliminary response to the first-filed petition and thus has had no way of learning anything from the first petition. While Petitioner was aware of the art asserted herein when it filed the first-filed petition, that art could not have been presented in the first petition because that petition assumes the ’054 patent is entitled to an effective filing date under which the primary reference (Forutanpour, EX1004) is not prior art. Thus, there are no “other concerns of fairness related to factor 2. *Code200* at 6.

Factor 4 (time elapsed since learning of prior art) weighs against discretionary denial because Petitioner moved promptly in preparing and filing this second Petition less than three months after discovering Forutanpour on November 19, 2023, and barely two months after learning the full set of claims asserted by Patent Owner in district court, on December 4, 2023.

Factor 5 (explanation of time elapsed from first petition) also weighs against discretionary denial because Petitioner files this second-filed petition within seven weeks of the first-filed petition. Moreover, given Patent Owner’s assertion of the challenged patent in the ITC, Petitioner needed to move even more quickly than normal in filing the first-filed petition barely three months after the complaint was

filed. After filing that first petition, Petitioner moved quickly in preparing and filing this second petition, which presents materially different prior art and argument.

Factor 6 (Board resources) also weighs against discretionary denial. This second petition will not inefficiently impact the finite resources of the Board because it challenges the same claims, relies on only one set of grounds (all anchored by the anticipatory Forutanpour primary reference), and if the Board agrees with this petition's arguments about the later effective filing date, the Board can reach a decision based solely on this petition without ever having to reach a decision as to the grounds raised in the first petition. Any Patent Owner concerns of fairness are "outweighed by the benefits to the patent system of improving patent quality by reviewing the merits of the challenges raised" in this petition, "which have not been addressed to date" and present important issues relating to Patent Owner's attempts to improperly expand the scope of the alleged invention beyond that which was originally contemplated in the ancestor applications. *Code200* at 6 (citing *General Plastic* at 16). Moreover, resolving these issues aligns with the Board's mission "to improve patent quality and restore confidence in the presumption of validity that comes with issued patents." *Id.* at 6.

For factor 7 (final written decision timing), Petitioner is willing to expedite its post-institution briefing to allow the Board to issue a final written decision for both IPRs on the same day within one year of institution of the first IPR. Petitioner will

work with Patent Owner to reach a mutually agreeable schedule that allows for efficient and prompt resolution of the unpatentability of the challenged claims in advance of the statutory deadline. Thus factor 7 does not weigh in favor of discretionary denial.

IV. STATE OF THE ART

A. Bluetooth And Wi-Fi Were Ubiquitous

Bluetooth and Wi-Fi were well-known wireless communication protocols that were commonly used in prior art devices ranging from smartphones to laptop computers. EX1205, [0003]; EX1265, 12, 68-70, 106-111; *see also* EX1254, [0008]; EX1267, [0006]; EX1276, 1:11-22; EX1274, [0002-6]. The Bluetooth and Wi-Fi protocols were so common, they were defined in dictionaries. EX1209, 26 (by 2004, “802.11b,” “also called Wi-Fi,” was “the most common wireless local area network”), 119 (“Bluetooth” is a “wireless protocol that is used to communicate from one device to another” and “version 1.1 allows a Bluetooth device to communicate with up to 8 devices”). EX1203, ¶35.

The v1.1 Bluetooth specification (EX1214, EX0153) and the v1.3 OBEX specification (EX1215) describe core and basic Bluetooth functionality and reflect a POSITA’s working knowledge of pertinent aspects of the Bluetooth and OBEX protocols. EX1203, ¶36; EX1278, 100-101; EX1258, 19-23, 29-1662; EX1254, [0008]; EX1255, [0006]. Similarly, IEEE 802.11 specifies the Wi-Fi protocol and at

least three industry publications (EXS1018, 1023-24) reflect a POSITA's working knowledge of pertinent aspects of the IEEE 802.11 WiFi standard. *Id.* EX1203, ¶36.

The Bluetooth protocol supported short-range personal area networks (PANs), and by at least 2001, included: (1) inquiry and discovery processes (part of Bluetooth's generic access profile) for discovering nearby devices, and (2) a service discovery protocol (SDP) for discovering the capabilities of (i.e., the services supported by) nearby devices. EX1239, *passim*; EX1253, 331-391; EX1214, 13-97; EX1209, 119; EX1222, 1:42-2:13, 11:2-4; EX1274, [0006]. EX1203, ¶37.

B. Bluetooth For Discovery, Wi-Fi For Data Transfers

It was well known to discover nearby devices using Bluetooth, or another low-power communication protocol, to save power and then, when transferring files, using Wi-Fi, or another higher-speed protocol, to expedite the transfer, thus providing a high-speed, power-efficient file transfer process. EX1203, ¶¶38-45.

This Bluetooth-to-Wi-Fi switching functionality was “the wireless technology equivalent of ‘low hanging fruit’” and was publicly discussed as being incorporated into Bluetooth 3.0 at least ten months before the '054 patent's earliest alleged priority date. EX1277, 1 (February 2008 article discussing Bluetooth SIG plans of “taking classic Bluetooth connections” and “allowing [them] to jump on top of the already present 802.11 radio, when necessary, to send bulky entertainment data,

faster.”); EX1268, 1-2; EX1203, ¶39. Similar technology is reflected in at least six prior art publications.

Hoddie, McKillop, Burns, Banerjea, Adler, and Kapur each discloses using Bluetooth or another lower power protocol to detect and establish an initial connection with another device, and then switching to Wi-Fi or another faster, higher bandwidth protocol to transfer a file. EX1206, 3:16-6:11, 9:9-14:9, claims 2, 4, FIGS 3-4; EX1205, Abstract, [0002], [0006-7], [0013-18], [0034], [0038], [0042-47], claims 2-4, FIGS. 2, 4; EX1267, [0009-10], [0012], [0040-41], [0047], [0051]; EX1210, Abstract, [0008-10], [0026-27], [0037-47]; EX1213, Abstract, [0006-8], [0038-56], claim 5; EX1212, [0022], [0029], [0065-66].

C. Prompting Recipients To Accept Or Deny A File Transfer

Numerous references reflect that it was well-known to prompt intended recipients of a content transfer to accept or reject that transfer, thus allowing users to avoid receipt of unwanted content. EX1203, ¶¶46-51.

Hinckley, for example, discloses “displaying on the receiving device an indication that information is to be received” (EX1207, claim 3), and if the user rejects the information, “blocking the receipt of the indicated information” (EX1207, claim 4). For example, “a user sees a thumbnail preview of the image ... that another user is transmitting, and can choose whether or not to accept it (Yes/No). By

selecting NO, the receiving user is stopping the transfer of information from the sending device.” EX1207, [0061]; *see also id.*, [0035], [0038], [0058-62], FIG. 3.

Guo similarly discloses the receiving mobile phone’s “processor 10 causes GUI 12 to prompt the user to accept the data file 16.” EX1227, [0017].

Turner shows that, by at least 2006, Bluetooth prompted users to accept or deny a transfer: “if a connection does result in some type of file transfer, users can be prompted as to whether they wish to accept such a transfer.” EX1228, 2:9-11; *see also id.*, 2:7-8 (further explaining how users can “prevent unwanted connections to a device and a subsequent infection by malware”).

Numerous user guides confirm that Nokia phones presented prompts to users asking them if they “want[ed] to accept the Bluetooth message” and would show the incoming message only if the user accepted. EX1262, 87; EX1225, 86; EX1221, 77; *see also* EX1226, 21; EX1260, 89; EX1261, 110.

The prior art Cheverst reference shows one such exemplary prompt.



Figure 6. Typical mobile phone display prompting the user to receive her selected image

EX1220, 49 (FIG. 6).¹

D. Request To Send And Acceptance To Transfer

Many then-existing protocols employed pre-transfer request and acceptance messages to set up / negotiate the transfer, ensure the sending device is authorized to transfer the file, and/or ensure the receiving device is ready for the transfer. EX1214, 23, 316-393; EX1253, 425, 428-441; EX1215, 10, 14, 16, 22-43, 73-74; EX1216, 18, 44; EX1217, 4-5; EX1218, 261-262; EX1203, ¶¶52-55. Specifically, these prior art references disclose sending, to a target device, a message requesting

¹ EX1259 authenticates and proves the public accessibility of EX1220.

to transfer a file, and receiving, from the target device, an acceptance to transfer the file. *Id.*

Bluetooth used the Object Exchange Protocol (OBEX) PUT operation to transfer a file, which involved sending a “request” to transfer a named file to a target device and then sending the file only after receiving a “[r]esponse” of “CONTINUE” from the target device. EX1215, 73-74; *see also id.*, 8, 10, 13-16, 22-24, 29-31, 50-51, 62; EX1214, 23, 316-330, 339-361, 368-390; EX1253, 425, 428-441; EX1255, [0006]; EX1257.² EX1203, ¶53.

9.2.4 Example Put Exchange

An application wishes to PUT a 2000 byte file named “Test File Object” with the time stamp 0x41a50016 (Jan 9, 1992, 11:02:00 UTC). The OBEX packet size is 512 bytes.

	Opcode or Response plus Headers	Final bit	Header Data	Header Length	Running Total of Data Exchanged
Pre-Transfer Request and Response Messages	Request →	PUT	“Test File Object”	37	
		Name Length	“2000”	19	
		Time	“19920109T110200Z”		
	Response ←	CONTINUE			
		no headers			
Transfer	Request →	PUT	“start of file data..”	509	506 bytes
		Body			

² EX1258 authenticates and proves the public accessibility of the Bluetooth v1.1 specification (EX1214, EX1253) and the OBEX v1.3 specification (EX1215). Other documents further confirm the public accessibility of the Bluetooth specification (EX1254, [0008]) and the OBEX specification (EX1255, [0006]). EX1203, ¶36; *supra* Section IV.A.

EX1215, 74 (excerpted) (red annotations added).

Further, the Wi-Fi protocol used similar request and acceptance messages—a four-way handshake known as RTS-CTS—to ensure data was successfully transferred and not interrupted by other devices on the network. EX1218, 261-262;³ *see also* EX1223, 134; EX1224, 270. Specifically, in RTS-CTS, “[a] terminal ... that wants to send data” does so by completing a “[f]our-way handshake—the sending node sends a request-to-send (RTS) packet to the receiving terminal. If the receiver accepts the request, it replies with a clear-to-send (CTS) packet. If no collisions have occurred, the sender then begins transmitting its data.” EX1218, 262. EX1203, ¶54.

Indeed, by at least the 1980s, such pre-transfer request and acceptance messages were common in file transfer protocols. The specification of the File Transfer Protocol (FTP) (published in 1985), for example, specifies that the user device sends a “transfer request command” and that when the connection is established with the server device, “the server-PI sends a confirming reply to the user-PI.” EX1216, 18. Similarly, the specification for the Trivial File Transfer

³ EX1279 proves the public accessibility of Frodigh (EX1218). EX1279, 2:17-24. Moreover, EX1218 was published in a well-known journal that was publicly disseminated and read by POSITAs. EX1203, ¶36; *supra* Section IV.A.

Protocol (TFTP) (published in 1992), specifies that “[a] transfer is established by sending a request ... and receiving a positive reply.” EX1217, 4. EX1203, ¶55.

E. Touchscreens

The '054 patent itself admits that touchscreens were known and were known to provide a simplified user experience. EX1201, 1:30-33 (“As the sophistication of user interfaces supporting data transfers has developed (for example, the emergence of touch screen and multi-touch technology), the user experience has been simplified considerably.”), 3:27-30, 8:15-38. EX1203, ¶56.

Indeed, multi-touch touchscreens were first developed decades earlier and had become widespread (e.g., such as in the iPhone) by the '054 patent's earliest alleged priority date (December 23, 2008) because they were versatile and easy to use. EX1236, 632, 633 (“In 1984, Lee at the University of Toronto first implemented a capacitive sensor array capable of tracking multiple touches simultaneously.”), 634-635; EX1245, [0064], [0127], [0133], [0141], claims 7, 14, 19, 24; EX1244, [0004]; EX1235, [0004], [0007-10]; EX1246, 2:16-20, 12:33-39 (noting “multi-touch sensitive tablets described in” several patents to Westerman); EX1265, 18-19, 92, 116, 144, 176-177. EX1203, ¶57.

Moreover, the use of taps, swipes, and other gestures on a multi-touch touchscreen to perform various functions, such as to select content and/or intended recipients, among other functions (e.g., pinch to zoom, swipe to scroll), was well

known in the art, including, for example, the iPhone. EX1265, 17-19 (describing tap, flick, and other gestures), 63 (“Tap the person you want to text.”), 91-98 (select photo to send); EX1246, 19:45-46 (“the gesture corresponding to selection is a tap”), 25:30-31 (select a contact “by a tap”), 33:24-26, 34:8-11, 34:33-41 (pinch to zoom), 36:2-6 (tap to select recipient), 36:17-18 (tap to select contact), 56:28-37 (tap to select recipient); EX1235, Abstract, [0008] (“in touch pads, selections may be made when one or more taps are detected”), [0066-72], [0084-105]; EX1245, [0011], [0060] (pinch to zoom), [0065], [0078-83], [0097-108]; EX1233, [0067], [0083], [0085], [0091], [0093], [0111] (“tapping on a single photo to select it); EX1234, 5:64-65 (“[a] particular file may be selected, e.g., by touching it”); EX1236, 636; EX1237, 32; EX1204, [0019-20], [0032-35], [0037], [0064], FIGS. 1, 3; EX1219, Abstract, [0004-6], [0015-31], claims 1-2, 4, FIGS. 4A, 4B; EX1232, Abstract, [0005-12], [0020], [0024-25], [0028], [0036-49]. EX1203, ¶58.

V. THE '054 PATENT

The '054 patent issued October 27, 2015 from Application No. 14/251,383 (the “'383 application”) filed April 11, 2014, and alleges priority to non-provisional applications filed June 28, 2013, June 11, 2012, and December 22, 2009, now Patent Nos. 8,737,933 (the “'933 patent”) (EX1271), 8,478,207 (the “'207 patent”) (EX1251), and 8,200,265 (the “'265 patent”) (EX1249), respectively, and to

provisional application No. 61/140,126 (“the ’126 provisional”) (EX1266) filed December 23, 2008.

A. The ’054 Patent’s Specification

The ’054 patent’s written description focuses on the use of gestures to transfer data to a nearby device. It acknowledges that well-known functionality “allow[ed] the transfer of data (such as files or digital media) between devices in ... wireless environments” and alleges that the file transfer process “may still be a cumbersome, multi-step task.” EX1201, 1:22-38. The ’054 patent purports to provide a “simplified and more intuitive approach to data transfer between devices” (EX1201, 1:42-43) by providing “a simple three step hand (or finger) motion to enable the data transfer” (EX1201, 8:15-16), whereby the user taps the file they want to send, pushes the file towards the intended recipient, and then releases (i.e., a swipe motion). EX1201, 8:17-57, 9:33-46, FIGS. 6-9.

The written description also describes using a known “service discovery protocol (SDP) such as currently available in protocols such as Bluetooth®” to discover nearby wireless devices (EX1201, 5:38-40; *see also id.*, 4:15-52, 5:38-6:3) and states that its wireless devices’ communication peripherals may include known technologies “such as third generation partnership (3GPP) second or third generation standards (2G/3G) modem, Bluetooth® or WiFi®” (EX1201, 2:61-63).

The written description does not, however, describe using Bluetooth to discover other wireless devices and then switching to Wi-Fi to transfer a file to a user-selected device, even though the independent claims are directed to this concept.

B. The Prosecution History

Applicant filed the '383 application, which ultimately led to the '054 patent, with claims substantively identical to the issued claims of the '933 patent. EX1202, 27-35, 76-80⁴; EX1271, 10:54-13:27. The Examiner issued only one Office action, did not issue a prior art rejection, and instead issued a double patenting rejection over the '933 patent. EX1202, 74-83. After Applicant filed a terminal disclaimer, the Examiner allowed the claims. EX1202, 108-109, 130, 138-142.

C. Claims Listing

The challenged claims are recited in their entireties in EX1275. Challenged claim 1 is representative and listed here, with element numbering added in the lefthand column:

[1.1]	A method performed by a wireless transmit/receive unit (WTRU), the method comprising:
[1.2]	processing, by the WTRU from a touch display, an input to select media in an application;
[1.3]	detecting, by the WTRU over bluetooth, another WTRU;
[1.4]	processing, by the WTRU, another input from the touch display to select the another WTRU;

⁴ EX1202 file history citations are to page numbers added by Petitioner.

[1.5]	sending, by the WTRU to the selected another WTRU, a message to transfer the selected media;
[1.6]	receiving, by the WTRU, an acceptance to transfer the selected media; and
[1.7]	transferring, by the WTRU to the selected another WTRU over WiFi, the selected media.

VI. LEVEL OF SKILL IN THE ART

A. Person Of Ordinary Skill In The Art

The person of ordinary skill in the art in April 2014 (“POSITA”) would have held a bachelor’s degree in computer science, electrical engineering, computer engineering, or a closely related field, and one to three years of experience working with wirelessly connected mobile devices that used common wireless communications protocols such as Bluetooth and 802.11 / Wi-Fi. More education, e.g., a Master’s or Ph.D., would compensate for less work experience and vice versa. The overview of the state of the art provided above (*supra* Section IV) reflects some of the information within a POSITA’s knowledge. The definition of a POSITA would not differ materially between December 2008 and April 2014. EX1203, ¶¶29-31.

VII. CLAIM CONSTRUCTION

Petitioner applies the plain and ordinary meaning of all claim terms, without waiving any rights to raise additional issues of claim construction, indefiniteness, or invalidity in any litigation. For purposes of this IPR, and consistent with the

positions of InterDigital and ITC Staff in the ITC proceeding (EXS1269-70), Petitioner submits that no claim terms invoke means-plus-function analysis.⁵

**VIII. THE EARLIEST POSSIBLE EFFECTIVE FILING
DATE FOR THE CHALLENGED CLAIMS IS APRIL 11, 2014**

Patent Owner cannot show entitlement to an effective filing date earlier than the April 11, 2014, the filing date of the application that led to the '054 patent, because the ancestor applications do not provide § 112 written description support for the challenged claims, as required by § 120. The pre-AIA version of 35 U.S.C. § 120 allows entitlement to an earlier application's filing date only where that earlier application "disclosed" the claimed "invention" "in the manner provided by section 112. *See also Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997) ("In order to gain the benefit of the filing date of an earlier application under 35 U.S.C. § 120, each application in the chain leading back to the earlier application must comply with the written description requirement of 35 U.S.C. § 112."); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008); *In re Hogan*, 559 F.2d 595, 609, 194 USPQ 527, 540 (CCPA 1977).

⁵ Petitioner reserves the right to argue elsewhere that terms reciting "circuitry configured to" are means-plus-function terms that are indefinite for lack of corresponding structure / algorithm.

Here, the ancestor applications do not show possession of the claimed method that requires using Bluetooth to detect nearby devices and then using WiFi to transfer a media element to one of the detected devices (or, as in claim 23 and its dependent claims, circuitry configured to carry out such a method)⁶. At best, the ancestor applications disclose only devices that may support Bluetooth and WiFi, along with a long, open-ended list of other wireless technologies. *E.g.*, EX1281, [0017], [0024], [0027], [0043]; EX1266, claim 33. They do not expressly disclose how the devices utilize WiFi, and they do not even hint at a method that uses Bluetooth and WiFi in separate operations, as later claimed. EX1203, ¶59-62. This lack of § 112 support means the challenged claims are not entitled to the filing dates of either the 2013 parent application (EX1285), the 2012 grandparent application (EX1281), the 2009 great-grandparent application (EX1282) or the 2008 provisional application (EX1266). The earliest possible effective filing date of the challenged claims is thus April 11, 2014.

⁶ Petitioner reserves the right to argue in other proceedings that the ancestor applications also do not provide written description support for other aspects of the challenged claims, including the message to transfer (claim element 1.5) and the acceptance (claim element 1.6).

“In a patent system which allows claim amendments and continuation applications long after an initial application is filed, the written description requirement serves an important purpose: to ensure that the patent owner may only exclude others from what they had actually invented *as of the priority date*.” *Columbia Ins. Co. v. Simpson Strong-Tie Co.*, Nos. 2021-2145, 2021-2157, 2023 WL 2733427, at *3 (Fed. Cir. Mar. 31, 2023) (emphasis original) (citing *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)). The written description requirement “ensure[s] 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.” *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 920 (Fed. Cir. 2004) (quoting *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345 (Fed. Cir. 2000)).

A. The Parent and Grandparent Applications Do Not Provide § 112 Written Description Support For A Method That (1) Uses Bluetooth To Detect Nearby Devices And Then (2) Uses WiFi To Transfer A Media Element To A Selected Nearby Device

This Petition shows why the grandparent application (EX1281)—and thus also the substantively identical parent application (EX1285)⁷—cannot provide

⁷ Because there are no material differences between the grandparent application and the parent application (*Compare* EX1281 *with* EX1285), for conciseness Petitioner hereinafter cites only to the grandparent application as representative of both.

Section 112 written description support for the challenged claims, thus breaking the chain of priority. *Zenon Env't, Inc. v. U.S. Filter Corp.*, 506 F.3d 1370, 1378 (Fed. Cir. 2007) (invalidating patent due to a break in the chain of disclosure); *Lockwood*, 107 F.3d at 1571 (“[E]ach application in the chain leading back to the earlier application must comply with the written description requirement of 35 U.S.C. § 112.”). Moreover, the grandparent application is representative of the great-grandparent application (EX1282), as the two are materially indistinguishable for purposes of this issue. The provisional application, in turn, contains even less disclosure and also fails to support the challenged claims.

Independent claim 1 is representative and recites a method that involves first using Bluetooth to detect nearby WTRUs and then using Wi-Fi to transfer a selected media element to one of the detected WTRUs. EX1201, 10:54-67 (claim 1). Claim 23 recites a “wireless transmit/receive unit (WTRU)” with circuitry configured to carry out this method. 12:8-21 (claim 23).

'054 Patent, claim 1 (excerpted)	'054 Patent, Claim 23 (excerpted)
1. A method performed by a wireless transmit/receive unit (WTRU), the method comprising: ... detecting, by the WTRU over bluetooth, another WTRU;	23. A wireless transmit/receive unit (WTRU) comprising: ... circuitry configured to detect, by the WTRU over bluetooth, another WTRU;

processing, by the WTRU, another input from the touch display to select the another WTRU;	the circuitry further configured to process another input from the touch display to select the another WTRU;
... and	... and
transferring, by the WTRU to the selected another WTRU over WiFi, the selected media.	circuitry configured to transfer, by the WTRU to the selected another WTRU over WiFi, the selected media.

The grandparent application, however, does not provide § 112 written description support for a single method (or circuitry configured to carry out the same operations of the method) that uses one communication protocol for device detection and another protocol for data transmission. EX1203, ¶¶63-64. To satisfy the written description requirement, “the disclosure of the application relied upon [must] reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *See, e.g., Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (citing *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562–63 (Fed. Cir. 1991)).

The requirements for showing the required written description are demanding. The application’s disclosure of the claimed subject matter must be: (1) express or necessarily present, *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998); (2) complete, *Lockwood*, 107 F.3d at 1571-72; and (3) unambiguous, *Hyatt v. Boone*, 146 F.3d 1348, 1354 (Fed. Cir. 1998).

It is not enough that the claims would have been obvious in view of the ancestor application's disclosure. *Lockwood*, 107 F.3d at 1571-72 ("Entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed. ... A description which renders obvious the invention for which an earlier filing date is sought is not sufficient."); *Rivera v. Int'l Trade Comm'n*, 857 F.3d 1315, 1322 (Fed. Cir. 2017) (finding that the specification did not provide written description support for a claimed device even if specification might render it obvious).

Prior to an amendment filed in the parent application on November 19, 2013 (EX1272, 89-102), Patent Owner had only targeted claims focused on gesture-based sending of content (e.g., EX1248, 1, 6-21, 29-45, 181-188; EX1250, 6-36, 90-93; EX1272, 16-47). This was roughly in line with the thrust of the specification's disclosure and the stated aim of the invention: to provide a "simplified and more intuitive approach to data transfer between devices." EX1281, [0004]; *see also supra* Section V.A. Those November 2013 amendments marked a divergence in the claim scope sought by Patent Owner, ultimately resulting in a fatal disconnect between the now-challenged '054 claims and the grandparent and parent applications.

At most, the grandparent application discloses WTRUs that have the capability to communicate using Bluetooth and Wi-Fi, along with a laundry list of other possible communications technologies. For example, it describes the WTRU

as including a “communication peripheral” that is either a Bluetooth *or* a WiFi device: “communication peripheral 107 may be implemented as a wireless personal area network (WPAN) device, for example Bluetooth® ... or WiFi® in ad-hoc mode.” EX1281, [0017]. The same paragraph later notes that the communication peripheral may include “any combination or all of” Bluetooth, WiFi®, 3GPP, and 2G/3G technologies. *See, e.g., id.* The provisional application, purportedly incorporated into the grandparent (and parent), similarly states that “[t]he communications peripherals of the WTRUs may implements [sic] technologies such as Wireless Personal Area Network (WPAN) (IEEE 802.15), Bluetooth, Wireless Universal Serial Bus (W-USB), or WiFi/WLAN (IEEE 802.11x) in ad-hoc mode.” EX1266, [0021]; *see also id.*, [0019] (“A WTRU may include one or [sic] modems, capable of communicating using technologies including 2G and 3G cellular technologies, Bluetooth, and WiFi/Wireless Local Area Network (WLAN) technologies.”). And claim 33 of the provisional application recites that the “WTRU supports at least one of” a long list of thirteen possible communication technologies. EX1266, 18-19.

These passing mentions of Bluetooth and WiFi capability give no indication of using the two together as different parts of the same method, much less the particular method of usage later claimed by the '054 patent. EX1203, ¶65. Merely disclosing a device that is capable of using different communication technologies

cannot provide support for any possible method of using those technologies. The law requires that the original disclosure provide guidance, such as “blaze marks directing the skilled artisan” to the particular method claimed. *Cf. Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1326 (Fed. Cir. 2000) (affirming lack of written description support and noting that “one cannot disclose a forest in the original application, and then later pick a tree out of the forest and say here is my invention”); *id.* at 1328 (finding no written description support where “the specification [did] not clearly disclose to the skilled artisan” that the named inventors “considered [a certain ratio] to be part of their invention”).

The grandparent application’s only other discussion of WiFi appears in a passage on providing environment information to the device’s processor. EX1281, [0024]. After explaining that the device processor receives “environment information stored at the lower layers by the communication peripheral 107” (*id.*, [0023]), the application states:

The lower level information is provided to the application processor 105 according to the communication technology being used. For example, the information available to the application processor 205 may vary based on an implementation using a Third Generation Partnership Project (3GPP) technology, an Institute of Electronic and Electrical Engineers (IEEE) standard such as WiFi, or some other communication technology.

EX1281, [0024] (excerpted). EX1203, ¶66.

Nothing in this disclosure suggests using one communication technology for device detection and a different communication technology for file transfer, let alone Bluetooth and WiFi specifically. Rather, it suggests the opposite by describing “the communication technology being used”—in the singular—for “an implementation.” This would be understood to mean that a given system used a single technology for both detection and file transfer. EX1281, [0024]; EX1203, ¶66.

The grandparent application makes no other mention of WiFi or 802.11—not in the title, abstract, drawings, background, summary, or claims. EX1203, ¶67.

Moreover, in explaining the transmission of “a data communication,” the grandparent application provides no explanation of what communication technology is used. *E.g.*, EX1281 [0023] (“[A] data communication from the WTRU 101 may be transmitted to the identified target WTRU 101c,t.”). Nor does it suggest that somehow the technology switches or is selected at the time of transmission or otherwise differs from the technology used for detection. In further discussing file transmission, the grandparent application describes “break[ing] the file into blocks,” but never describes use or selection of a particular communication technology or that there is a process for determining the communications technology, much less switching between different communication technologies for different operations. *E.g.*, *id.*, [0032] (“The application processor 105 in the sending WTRU 101 may

control the manner in which the data is transferred to the target WTRU 101c,t, for example, by breaking the data into blocks corresponding to the manner in which the visual depiction of the data should appear at the target WTRU 101c,t.”); *see also* EX1266, [0029] (similar passage in provisional). EX1203, ¶68.

Indeed, the grandparent application is altogether silent on which 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. *See, e.g.*, EX1281, [0027-28], [0032], [0036-39]. For example, the grandparent application does not say which technology 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. EX1203, ¶69.

Thus, the grandparent application at best discloses WTRUs with the ability to communicate using Bluetooth and Wi-Fi, among numerous other possible communication technologies. EX1281, [0017], [0024], [0027], [0043]; EX1203, ¶69. It never describes a process or method that uses one of these technologies (Bluetooth) for device detection and then switches to the other (Wi-Fi) for data transfer to a device identified using the first technology. Computing devices can be programmed to perform any number of methods. EX1203, ¶69. Disclosure of the mere ability to use numerous protocols or communication technologies is

insufficient to show possession of a method utilizing just two of these technologies in the particular manner claimed here.

The Federal Circuit addressed similar issues, and found no written description support, in *LizardTech, Inc. v. Earth Res. Mapping, Inc.* 424 F.3d 1336, 1345-46 (Fed. Cir. 2005). There, patent owner had argued “that section 112 requires only that each individual step in a claimed process be described adequately.” *Id.* at 1346. The Court rejected that approach, reasoning that it “would lead to sweeping, overbroad claims because it would entitle an inventor to a claim scope far greater than what a person of skill in the art would understand the inventor to possess.” *Id.* The Court then provided the hypothetical of a patent specification that described “a particular fuel-efficient automobile engine” in sufficient detail to “meet the requirements of section 112 with respect to a claim directed to that particular engine.” Such a specification would not, however, necessarily support claims to an engine “different in structure or operation from the inventor’s engine.” *Id.*

Similarly, Patent Owner here would fall far short were it to argue that disclosure of a device with Bluetooth and WiFi capability somehow showed possession of all allegedly inventive methods that used these two communications protocols. The grandparent application does not disclose any method using different protocols to perform different functions, much less the specific claimed method of using Bluetooth to detect nearby devices and Wi-Fi to transfer data to one of the

detected devices. EX1203, ¶70. The applicants simply never disclosed that as part of their alleged invention, and there was no apparent contemplation of such a method until the November 2013 claim amendments. *See Flash-Control, LLC v. Intel Corp.*, No. 2020-2141, 2021 WL 2944592, at *4 (Fed. Cir. July 14, 2021) (non-precedential) (“A patent owner cannot show written description support by picking and choosing claim elements from different embodiments that are never linked together in the specification.”); *Taylor v. Iancu*, 809 F. App'x 821 (Fed. Cir. 2020) (affirming summary judgment rejection in a Section 145 action of claims combining features identified in the specification but not described in combination with each other); *Hyatt v. Dudas*, 492 F.3d 1365, 1371 (Fed. Cir. 2007) (affirming *ex parte* rejection of claims on ground that “while each element may be *individually* described in the specification, the deficiency was the lack of adequate description of their *combination*”) (emphasis original).

Thus, nothing in the grandparent application (or the identical parent application) reasonably conveys to those skilled in the art that the inventors had possession of using Bluetooth to detect nearby devices and WiFi to transfer a selected media element to one of the detected devices, as required by Section 120. The earliest possible effective filing date for the challenged claims of the '054 patent is therefore the filing date of the '054 patent—April 11, 2014. EX1203, ¶70.

B. Patent Owner Will Be Unable To Meet Its Burden Of Production To Show That Each Challenged Claim Has Section 112 Support In The Parent Application

Because this Petition introduces sufficient evidence to show that the challenged claims are unpatentable over intervening prior art reference Forutanpour (*infra* Sections IX-XII), Patent Owner bears the burden of production to show, on a claim-by-claim basis, that each claim has Section 112 written description support in any earlier application to which Patent Owner alleges priority. *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1329 (Fed. Cir. 2008) (“[O]nce a challenger [Petitioner] has introduced sufficient evidence to put at issue whether there is prior art alleged to anticipate the claims being asserted, prior art that is dated earlier than the apparent effective date of the asserted patent claim, the patentee has the burden of going forward with evidence and argument to the contrary.”); *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010) (even when application is a continuation, if challenger meets burden of production identifying an invalidating intervening prior art reference, then patent owner has burden of production of entitlement to ancestor application’s filing date); *see also Nat. Alts. Int’l, Inc. v. Iancu*, 904 F.3d 1375, 1380 (Fed. Cir. 2018) (emphasis in original) (“Claims in a patent or patent application are not entitled to priority under § 120 at least until the patent owner *proves* entitlement to the PTO, the Board, or a federal court.”); *D Three Enters., LLC v. SunModo Corp.*, 890 F.3d 1042, 1049 (Fed. Cir.

2018) (same); *In re Katz*, 639 F.3d 1303, 1322 (Fed. Cir. 2011); *Amazon.com, Inc. v. Personalized Media Commc'ns, LLC*, IPR2014-01527, 2016 WL 7047090 (PTAB Aug. 31, 2016) (patent owner has burden of production to show entitlement to ancestor's filing date antedating asserted reference).

Following this burden-shifting law, the Board has repeatedly ruled that a patent owner failed to show that claims had written description support in an ancestor application, resulting in those claims being anticipated (or likely anticipated) by intervening prior art. *See MaxLite, Inc. v. Jiaxing Super Lighting Elec. Appliance Co.*, IPR2020-00208, Paper No. 14 (PTAB Jun. 1, 2021) (patent owner failed its burden of production to show that each claim element was supported by foreign ancestor application); *Aquestive Therapeutics, Inc. v. Neurelis, Inc.*, Case IPR2019-00451, Paper No. 14 at 5-6 (PTAB Sept. 27, 2019) (patent owner failed to “demonstrate[e] that every patent application along the priority chain conveys with reasonable clarity to those skilled in the art that the inventors were in possession of each limitation of each of the challenged claims, as well as the claimed invention as a whole”); *Inguran LLC v. Premium Genetics (UK) Ltd.*, Case PGR2015-00017, Paper No. 22 (PTAB Dec. 20, 2016) (patent owner failed to satisfy its burden of production to show that ancestor application provided written description support for each element of the challenged claim).

As explained above, Patent Owner will not be able to meet this burden because the grandparent and parent applications do not reasonably convey to those skilled in the art that the inventors had possession of a method, as claimed, that involved using two different communication technologies for different purposes: one (Bluetooth) to detect nearby devices and another (WiFi) to send a media element to one of the detected devices.

**IX. GROUND 1-2: CLAIMS 1, 3-10, 12, 14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, AND 49-50
ARE ANTICIPATED BY AND/OR OBVIOUS OVER FORUTANPOUR**

Forutanpour anticipates claims 1, 4-9, 12, 14-15, 21, 23, 26-31, 34, 36-37, 43, 46-47, and 49-50 (Ground 1). To the extent the Board finds that Forutanpour does not anticipate one or more of these claims, Forutanpour still renders them obvious, and additionally renders obvious claims 3, 10, 25, and 32 (Ground 2). EX1203, ¶71.

A. Forutanpour (EX1204) Is Presumptively Prior Art

Forutanpour (EX1204) is prior art under at least Sections 102(a)(1) and 102(b)(1) because it published April 7, 2011, more than one year before the '054 patent's filing date of April 11, 2014. "Claims in a patent or patent application are not entitled to priority under § 120 at least until the patent owner *proves* entitlement to the PTO, the Board, or a federal court." *Nat. Alts. Int'l, Inc. v. Iancu*, 904 F.3d 1375, 1380 (Fed. Cir. 2018) (emphasis in original) (affirming Board finding that chain of claiming priority was broken). Forutanpour is analogous art to the '054

patent because they are both within the same field of endeavor: data transfer between wireless devices. *E.g.*, EX1201, Title; EX1204, Title, Abstract, [0004-11], claim 1; EX1203, ¶72.

Forutanpour discloses touchscreen-containing mobile devices that wirelessly share media elements (e.g., pictures) with one another using multiple wireless protocols. *E.g.*, EX1204, [0004], [0069-89], [0152], claim 3. To send a file, the user first accesses a file they wish to send, triggering their device to detect and establish wireless links with neighboring devices using a first communication protocol (e.g., Bluetooth). EX1204, [0070-72], [0086], [0128]. The user then taps the media element (e.g., picture) they wish to share, and swipes it towards the intended recipient. *E.g.*, EX1204, [0064], [0071], [0090], [0098-105], [0125], [0134-138], FIGS. 9-18.

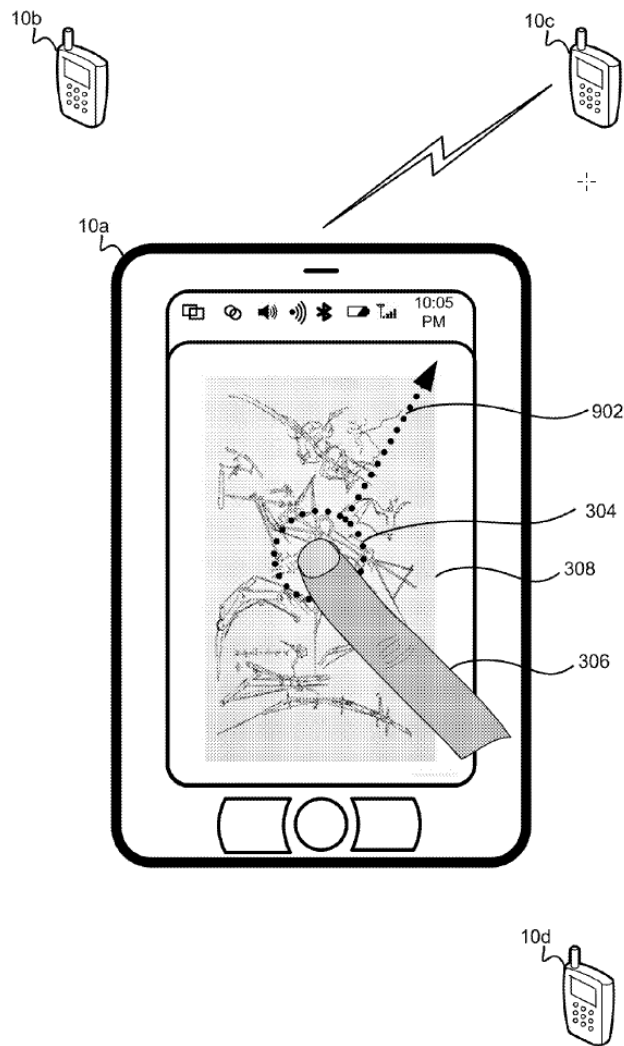


FIG. 9

EX1204, FIG. 9. EX1203, ¶73.

The user's mobile device detects this touchscreen input and transfers the user-selected media element to the intended recipient device using a "wireless technology different from the wireless technology used to establish the wireless link" (e.g., a protocol providing a direct Wi-Fi communication link). EX1204, [0004], claim 3; *see also id.*, [0005], [0072], [0081-0084], [0128-129], [0143]; EX1203, ¶74.

The sending device, however, does not send the file until it receives authorization from the receiving device. This authorization process involves the exchange of at least two messages: a request message and an acceptance message. EX1204, [0005], [0070], [0080-81], [0086], [0143], [0145], FIG. 42. Specifically, the sending device “send[s] a query, message 24, to the targeted computing device [] requesting permission to transmit the file.” EX1204, [0086]. In response to receiving the request from the sending device, the receiving device “generate[s] a prompt that alerts the device’s user of the pending file transfer request.” EX1204, [0080]; *see also id.*, [0110], [0144], FIG. 30.

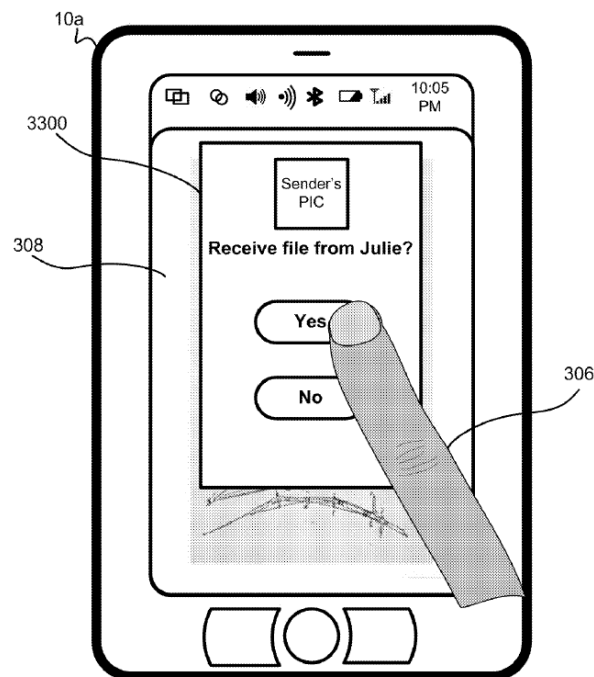


FIG. 30

EX1204, FIG. 30. EX1203, ¶75.

If the receiving user accepts the file transfer, the receiving device sends an acceptance message to the sending device that includes “access data” that “identif[ies] a preferred communication method and communication network to be used for transmitting the file,” including a “direct communication link such as ... [a] WiFi direct communication link.” EX1204, [0081]; *see also id.*, [0005], [0007], [0083-84], [0114], [0128], [0143-144]. EX1203, ¶76.

Once the sending device receives the acceptance message from the sending device, it sends the user-selected media element to the receiving device using the preferred communication method identified in the receiving device’s acceptance message. EX1204, [0005], [0081-84], [0086-87], [0098], [0143-144]. EX1203, ¶77.

**B. Detailed Claim Mapping For Claims 1, 3-10, 12,
14-15, 21, 23, 25-32, 34, 36-37, 43, 46-47, And 49-50**

1. Claim 1

Forutanpour anticipates claim 1 because it discloses every element of claim 1. To the extent the Board finds Forutanpour does not disclose one or more elements of claim 1, Forutanpour still renders every claim element obvious. EX1203, ¶78.

a) Element 1.1

[1.1]⁸ A method performed by a wireless transmit/receive unit (WTRU), the method comprising:

Forutanpour anticipates this claim element or at least renders it obvious because Forutanpour's "computing devices" (WTRUs) are programmed to perform the claimed method. EX1204, [0009], [0070-84], [0150-156]. Each computing device includes a "processor," such as processor 191 shown in FIG. 47, that processes inputs from a "touchscreen display" and that wirelessly communicates with other computing devices using "one or more wireless transceivers." EX1204, [0070-84], [0150]; *see also id.*, [0151], FIGS. 2A-2B, 47. The computing devices' processors are "configured with processor-executable instructions" to perform the claimed method steps, as explained below. EX1204, [0009]; *see also id.*, [0150-156]. EX1203, ¶79.

b) Element 1.2

[1.2] processing, by the WTRU from a touch display, an input to select media in an application;

⁸ Reference numbers in the format of [claim#.element#] are added throughout for ease of reference.

Forutanpour anticipates this claim element or at least renders it obvious. EX1204, [0003], [0069-71], [0090]. For example, Forutanpour discloses that a user “can select a file by, for example, touching it on a touchscreen display” to “activate the file sharing functionality.” EX1204, [0070-71]; *see also id.*, [0069]. The processor of Forutanpour’s computing device processes this touchscreen input (i.e., a tap) at least because it “determines” “the file to be shared” based on this input. EX1204, [0070]; *see also id.*, [0090], FIG. 3. EX1203, ¶80.

Forutanpour discloses its file being a media element, e.g., “documents, pictures or videos.” EX1204, [0003]; EX1201, 11:4-5 (claim 4) (reciting that the claimed media element “is any one of a photograph, video, or a document”). EX1203, ¶81.

Forutanpour also discloses that the user selects the media in an application at least because “an application” “provide[s] the file sharing functionality.” EX1204, [0123]; *see also id.*, [0070], [0090], [0153-154], FIG. 31. For example, the application “provides a user interface for file sharing, detects and interprets user gestures,” such as “a particular touch gesture” on a touchscreen, and “determines the file to be shared and the destination” based on the user’s touchscreen input. EX1204, [0070]; *see also id.*, [0071-83]. For example, the user interface provided by the application “may present a menu, list, or thumbnail display of files from which the user can select a file by, for example, touching it on a touchscreen display.” EX1204,

[0071]. Thus, Forutanpour discloses an application that presents media elements to a user and that processes from a touch (an input) on a touchscreen to select one of the presented media elements. *Id.* EX1203, ¶82.

Moreover, it would have been obvious to implement Forutanpour’s mobile devices to present the media elements to the user in an application (e.g., in a photo/video application) because it was well known to do so to allow a user to retrieve, view, and perform actions on (e.g., edit, send, etc.) media content. EX1265, 94-95 (showing that in 2007 the iPhone contained a dedicated Photos application that allowed users to send pictures). Moreover, it was well known, in general, to use applications in computing devices because they allow users to perform useful tasks (e.g., to send and/or edit pictures). EX1209, 69 (an “application” is a “software program that carries out some useful task” such as “word processors.”). EX1203, ¶83.

Thus, it would have been obvious to a POSITA when implementing wireless devices in accordance with Forutanpour’s teachings to have programmed the devices to process, from a touch display, an input to select media in an application. EX1203, ¶84.

c) Element 1.3

[1.3] detecting, by the WTRU over bluetooth, another WTRU;
--

Forutanpour anticipates this claim element or at least renders it obvious. EX1204, [0068], [0072], [0086], [0096], [0128], FIGS. 8, 35. For example, Forutanpour discloses that its computing device uses “Bluetooth®” to “discover nearby computing devices,” e.g., in response to the user selecting a file for transfer. EX1204, [0072]. Forutanpour confirms that it was “well known” to use the Bluetooth communication protocol “for automatic device discovery” because it “enable[s] a computing device to locate other nearby computing devices.” *Id.*; *see also id.*, [0068], [0086], [0096], [0128], FIGS. 1, 8, 35. EX1203, ¶85.

d) Element 1.4

[1.4] processing, by the WTRU, another input from the touch display to select the another WTRU;

Forutanpour anticipates this claim element or at least renders it obvious. EX1204, [0061], [0068], [0075-77], [0098], [0107-108], FIG. 9. For example, after detecting the nearby devices, the processor of Forutanpour’s computing device “determine[s]” that “a user wishes to share the selected file with another computing device by detecting a file transfer gesture” and “identif[ies] the intended recipient of the file” based on the “direction, distance, speed, etc.” of the gesture (e.g., flick). EX1204, [0075-77]; *see also id.*, [0061], [0068], [0098], [0107] (“identify the targeted computing device [] based on the location of the finger [] touch release”), [0108] (“determine the target computing device” based on a user “touching the

picture of the device owner using a finger”), FIG. 9. Thus, Forutanpour’s computing device processes another touchscreen input, such as a flick gesture, to select one of the detected devices because it determines the intended recipient based on this another touchscreen input (e.g., the intended recipient is the one that is in the direction of the flick). EX1203, ¶86.

e) **Elements 1.5-1.6**

[1.5] sending, by the WTRU to the selected another WTRU, a message to transfer the selected media;
[1.6] receiving, by the WTRU, an acceptance to transfer the selected media; and

Forutanpour anticipates these claim elements or at least renders them obvious. EX1204, [0079-82], [0086], [0143], [0145], FIG. 42. For example, Forutanpour discloses that “the transmitting computing device 10 may send a file transmission query to the targeted computing device before transmitting a file. The computing device may receive an authorization response from the targeted computing device.” EX1204, [0143]; *see also id.*, [0081-82], [0086], [0145]. Additionally, the receiving device may require the receiving user’s authorization sending the acceptance message to the sending device. “On the receiver side, ... the device processor may generate a prompt that alerts the device’s user of the pending file transfer request and, optionally, the identity of the user sending the file and file name or type.” EX1204, [0080]. The “intended recipient user may then press a key or virtual key on the GUI to either accept or decline transfer of the file.” *Id.* EX1203, ¶87.

Thus, Forutanpour discloses sending, by the sending “computing device” (WTRU), a “query” (message) to transfer the selected media element to the “targeted computing device” (selected WTRU), and receiving, by the “computing device” (WTRU), an “authorization response” (acceptance) to transfer the selected media element to the “targeted computing device” (selected WTRU). EX1203, ¶88.

f) Element 1.7

[1.7] transferring, by the WTRU to the selected another WTRU over WiFi, the selected media.

Forutanpour anticipates this claim element or at least renders it obvious. EX1204, [0004-5], [0081-84], [0143-144], claim 3. For example, Forutanpour expressly discloses identifying a “WiFi direct communication link” as the “communication network to be used for transmitting the file” (EX1204, [0081]), and then “transmit[ting] the selected file to the targeted device using” that network (EX1204, [0082]). *See also id.*, [0083-84] (“[M]essages may similarly be transmitted via another type of wireless communication network, such as a WiFi, WiMax or MiFi network.”), [0143-144]. Forutanpour also discloses using different wireless protocols for device detection and file transmission, thus expressly contemplating use of, e.g., Bluetooth for device detection and WiFi for file / data transfer. EX1204, [0004] ([T]ransmitting the file sharing message to the targeted computing device ...

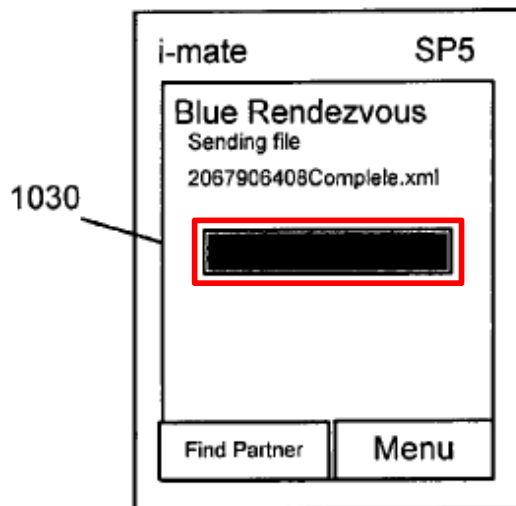
using a wireless technology different from the wireless technology used to establish the wireless link.”); *see also id.*, [0005], claim 3. EX1203, ¶89.

2. Claim 3

3. The method of claim 1 further comprising: displaying, by the WTRU, a progress of the transfer to the selected another WTRU.

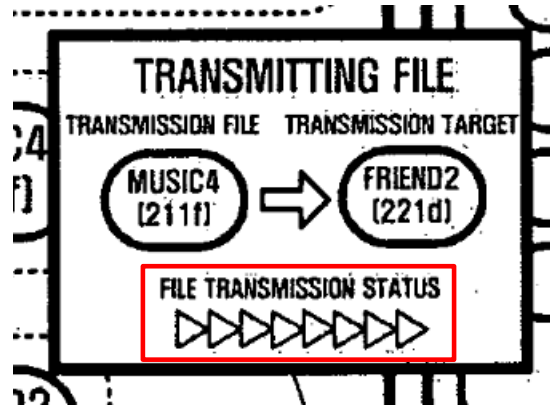
Forutanpour renders claim 2 obvious in view of the state of the art. It was well known to display the progress of a data transfer to inform the user of the status of the transfer. EX1203, ¶90.

Hinckley, for example, discloses that “[w]hen the user presses a soft key associated with the Send icon 1022, a progress bar gives feedback on the transfer.” EX1207, [0058].



EX1207, FIG. 10 (excerpted) (red annotations added). EX1203, ¶91.

As another example, Lee discloses displaying a “file transmission status,” “thereby giving [] feedback to the user.” EX1247, FIG. 11C, [0130].



EX1247, FIG. 11C (excerpted) (red annotations added). EX1203, ¶92.

As another example, Boutsikakis discloses “provid[ing] an indication to the user that the transmission is in progress” and “an indication when transmission has been completed.” EX1229, [0013]. EX1203, ¶93.

Moreover, the use of progress bars generally, and their benefits, were well known more than 20 years before the '054 patent's alleged priority date. EX1231 (published in 1985), 11-12 (“Progress indicators give the user enough information at a quick glance to estimate how much of the task has been completed and when the task will be finished.”), 16-17; EX1230; EX1203, ¶94.

Thus, a POSITA would have been motivated to program the Forutanpour devices to display the progress of the transfer to indicate the time remaining for the transfer so that, for example, users know when they may move their devices out of Wi-Fi range of each other. A POSITA would have had a reasonable expectation of

success in implementing this functionality in the Forutanpour devices because it would have required only elementary computer code that was well within the programming skill of a POSITA, as evidenced by the widespread use of such functionality in the art. *Keynetik, Inc. v. Samsung Elecs. Co.*, No. 2022-1127, 2023 WL 2003932, at *2 (Fed. Cir. Feb. 15, 2023). EX1203, ¶95.

3. Claim 4

4. The method of claim 1, wherein the media is any one of a photograph, video, or a document.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour expressly discloses that its “files” (media element) include “documents, pictures or videos.” EX1204, [0003]; *see also id.*, [0066], FIGS. 3-7, 9-12, 14, 21A-24. It also illustrates that the media element includes a “drawing[]” (EX1204, [0090]) in at least FIGS. 3-7, 9-12, 14, and 21A-24. EX1203, ¶96.

4. Claim 5

5. The method of claim 1, wherein the input or the another input is a tap.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses that the touchscreen input is a “touch” (tap). EX1204, [0090]; *see also id.*, [0064], [0071], [0125]. For example, “the user can select a file by, for example, touching it on a touchscreen display” (EX1204, [0071]), as illustrated in at least FIG. 3. EX1203, ¶97.

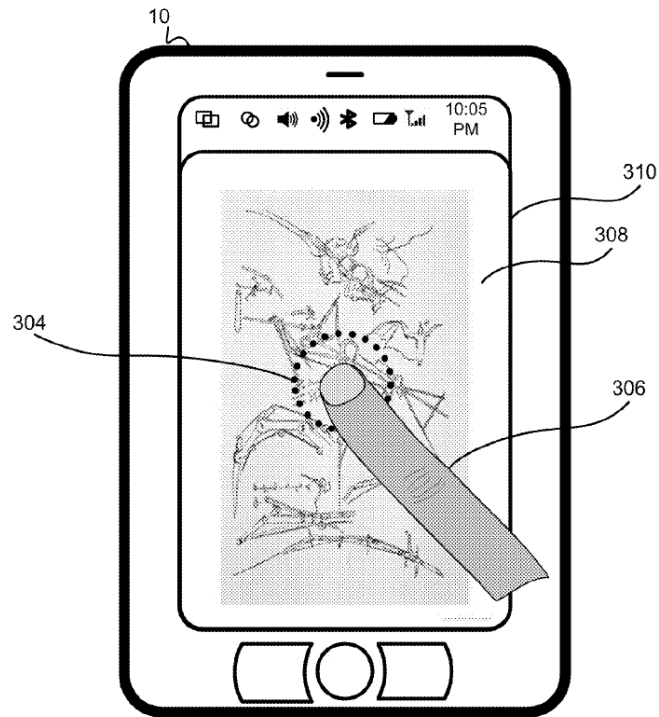


FIG. 3

EX1204, FIG. 3.

The claim is further obvious because the '054 patent itself admits that it was known to convert touchscreen “user actions” and inputs, including a “tap 6A,” “to electromechanical signals through mechanisms known in the art.” EX1201, 8:15-38. EX1203, ¶98.

5. Claim 6

6. The method of claim 1, wherein the message to transfer is a request.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses that the message to transfer is a “request.” EX1204, [0005], [0079-80], [0086], [0144], claim 9, FIG. 1. EX1203, ¶99.

6. Claim 7

7. The method of claim 1, wherein the transferring by the WTRU over WiFi uses a WiFi link.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses that the WiFi communication is a “WiFi direct communication link.” EX1204, [0081]; *see also id.*, [0004], claim 2. EX1203, ¶100.

7. Claim 8

8. The method of claim 1, wherein the transferring by the WTRU is provided by a communication peripheral.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses that the WiFi and Bluetooth communications are provided by one or more “transceivers” coupled to a “processor.” EX1204, [0150-151], *see also id.*, [0009], [0063], [0072], [0128], claim 29. EX1203, ¶101.

8. Claim 9

9. The method of claim 1 further comprising using bluetooth to detect one of a plurality of WTRUs in proximity to the WTRU.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses detecting “nearby” devices (i.e., devices in proximity) using

the “automatic device discovery” provided by “the Bluetooth® communication protocol,” “[a]s is well known.” EX1204, [0072]; *see also id.*, [0068], [0086], [0096], [0128]; FIGS. 1, 8, 35. It would have been further obvious to detect the nearby wireless devices using Bluetooth discovery, such as the Bluetooth device discovery provided by Bluetooth’s generic access profile, because this is how Bluetooth works, as described by the Bluetooth specification. EX1214, 38-43. EX1203, ¶102.

9. Claim 10

10. The method of claim 9, wherein the detection of the plurality of WTRUs utilizes a service discovery protocol.

Forutanpour renders this claim obvious because Forutanpour discloses using Bluetooth “to discover the presence of like-equipped computing devices.” EX1204, [0072]. POSITAs knew, as detailed in the Bluetooth specification, that Bluetooth’s service discovery protocol (SDP) is what provides this kind of discovery (of like-equipped devices) because SDP discovers the services offered by detected devices (and thus whether they are like-equipped). EX1214, 69-97; EX1253, 331-391; *see also*, EX1274, [0003], [0006], [0013-15]; EX1239, 96-102. The ’054 patent itself admits as much. *See, e.g.*, EX1201, 5:38-46 (“a service discovery protocol (SDP) such as currently available in protocols such as Bluetooth®” may be invoked “to

discover all of the TapAPP enabled WTRUs operating in a particular location”).
EX1203, ¶103.

Thus, a POSITA would have found it obvious to utilize Bluetooth’s SDP to discover the presence of other like-equipped devices, as taught by Forutanpour.
EX1203, ¶104.

10. Claim 12

12. The method of claim 1 further comprising: determining, by the WTRU, that the selected another WTRU is compatible to receive the selected media.

Forutanpour anticipates this claim or at least renders it obvious a POSITA would have understood that Forutanpour’s teachings to discover “like-equipped” (compatible) computing devices involved determining that the selected mobile device (WTRU) is compatible to transfer the selected media element. EX1204, [0072]. EX1203, ¶105. At the very least this would have been obvious. In the context of Forutanpour, a POSITA would have understood that “like-equipped” refers to devices having similar communication capabilities and thus “compatible” with one another for that purpose. *Id.* Further, when setting up the transfer, the transmitting device “negotiate[s] a mutually acceptable communication network to use for the file transfer.” EX1204, [0081]. A POSITA would have understood and/or at least have found it obvious that to negotiate a mutually acceptable communication network, the transmitting device would determine that the receiving device is

compatible to receive the selected media element over that communication network.
EX1203, ¶105.

This claim would have been further obvious in view of the state of the art because it was common practice to perform the claimed compatibility check to make sure the receiving device can accept the transfer. EX1229, [0011]; EX1242, [0007]; EX1238, Abstract, [0028]; EX1267, [0046]; EX1206, 12:30-13:4. EX1203, ¶106.

11. Claim 14

14. The method of claim 1 further comprising: determining, by the WTRU, environment information that lists a plurality of WTRUs in proximity to the WTRU.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses gathering “contact information” and/or “the locations” of nearby computing devices and displaying the “profile picture[s]” of the other computing devices’ owners and/or the “locations of nearby computing devices with graphical indicators (e.g., dots).” EX1204, [0073-74], [0108]; *see also id.*, [0096], [0106], [0108-111], [0123], [0131-133], claim 13, FIG. 18. This location information is gathered using, e.g., GPS receivers, and the contact information is gathered, e.g., during device discovery. EX1204, [0073], [0108]. Thus, Forutanpour discloses determining contact information and/or location information (environment information) that lists the nearby wireless mobile devices. EX1203, ¶107.

Moreover, a POSITA would have found it obvious that Forutanpour's Bluetooth discovery process involves determining environment information that lists the plurality of nearby wireless devices because Bluetooth's discovery process identifies nearby devices based on wireless signals received from these devices. EX1204, [0072], [0086], [0128]; EX1214, 13, 38-43. The Bluetooth specification itself discloses that the initial device discovery provided by Bluetooth's generic access profile lists the discovered Bluetooth devices. EX1214, 42-43.

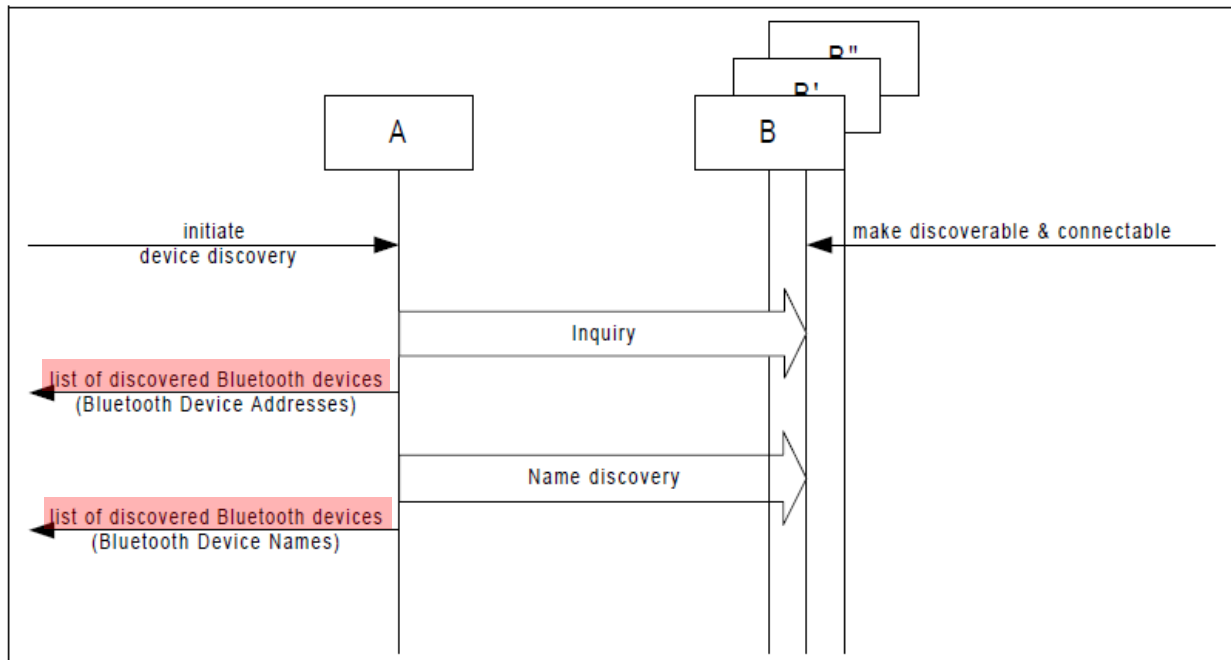


Figure 6.5: Device discovery procedure.

EX1214, 43 (FIG. 6.5) (red annotations added). EX1203, ¶108.

12. Claim 15

15. The method of claim 1, wherein the WTRU processes the input or the another input based on information from the touch display.

Forutanpour anticipates this claim or at least renders it obvious because Forutanpour discloses that each mobile computing device's touchscreen is coupled to each device's processor (EX1204, [0150], FIG. 47) and that each mobile “detect[s] and recognize[s] a file transfer gesture” (EX1204, [0075] (processes the touchscreen input) based upon “information received through presses of the keys 402 and/or touchscreen 308 [which] may be communicated to the operating system 3404 [] via drivers” (EX1204, [0123]) (information from a touchscreen). *See also id.*, [0098], [0125], [0127]. EX1203, ¶109.

13. Claim 21

[21.a] The method of claim 1 further comprising:
[21.b] receiving, by the WTRU from a different WTRU, a request to transfer other media;
[21.c] receiving, in response to accepting the request by the WTRU, the other media; and
[21.d] displaying, by the WTRU, the other media substantially completely to a user of the WTRU.

Forutanpour anticipates this claim or at least renders it obvious. Forutanpour discloses that when receiving content, the targeted computing device (selected WTRU) “receive[s] a message from the transmitting computing device [] requesting permission to transmit files to it,” and after “send[ing] an authorization response” to the transmitting computing device, the targeted computing device “receive[s] the file from the transmitting computing device.” EX1204, [0144]. After receiving the file, the targeted computing device “display[s] the file.” EX1204, [0114]. Thus, the

targeted computing device (selected WTRU) performs each of the claim 21-recited actions. EX1203, ¶110.

A POSITA would have understood or at least found it obvious, however, that the other computing devices in Forutanpour's network of devices also perform the claim 21-recited steps when receiving content at least because a POSITA would have understood or at least found it obvious that they are similarly equipped with the same file-sharing functionality. Forutanpour refers to the devices collectively: "computing devices 10a-10c," ([0083-84]) "computing devices 10" (EX1204, [0095], [0108-110], [0115], [0123], [0128]) and gives no indication that the wireless computing devices are programmed to have disparate wireless functionality. Moreover, implementing Forutanpour's system any other way (e.g., such that only some devices can send and receive transfer requests while others can only send transfer requests) would be nonsensical because it would unnecessarily limit the devices' capabilities. Thus, a POSITA would have understood or at least have found it obvious that the computing device that sends content and performs the claim 1-recited steps (the WTRU) also performs the claim 21-recited steps when receiving content responsive to a transfer request from another device. EX1203, ¶111.

A POSITA would have found the specific use scenario (where a first device sends content to a second device and receives content from a third device) to be at least obvious in Forutanpour's system at least because Forutanpour discloses

“sharing files among computing devices,” not just sending content from one device to a second device. EX1204, [0004]. It further shows an exemplary system with three different computing devices (FIG. 2A) that a POSITA would understand to be programmed to share files with each other according to Forutanpour’s method. Thus, a POSITA would have understood or at least have found it obvious that in Forutanpour’s network of multiple devices, a third device would send a transfer request to the first device and perform the claimed method. EX1203, ¶112.

14. Claims 46-47

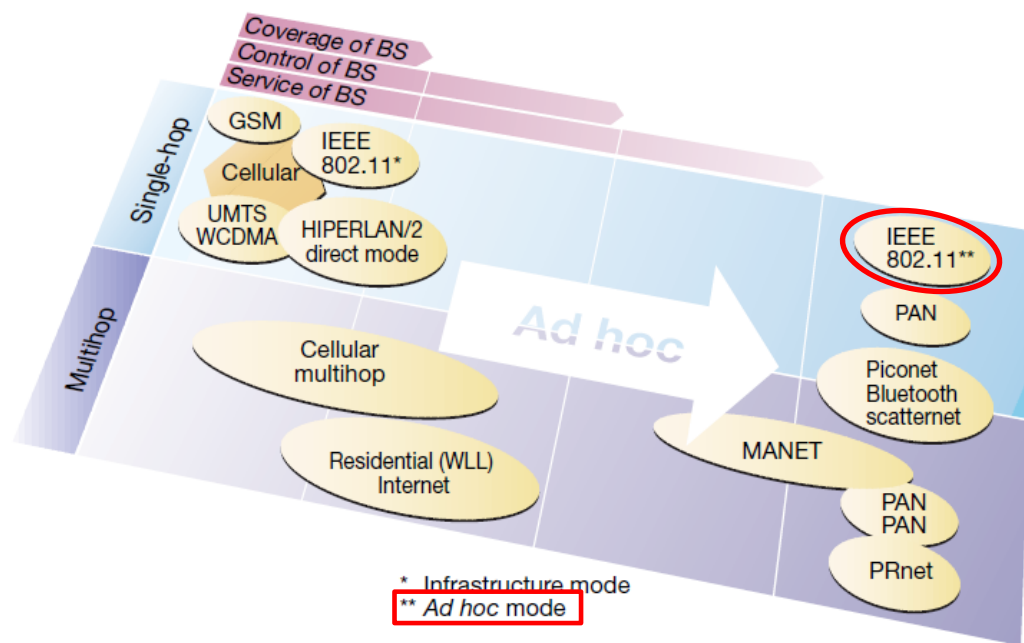
46. The method of claim 7, wherein the WiFi link utilizes peer-to-peer communication.

47. The method of claim 46, wherein the peer-to-peer communication operates in WiFi ad-hoc mode.

Forutanpour anticipates these claims or at least renders them obvious because Forutanpour discloses sharing files through direct, “device-to-device” wireless communication links (EX1204, Abstract, [0083], [0086-87]), such as a “WiFi direct communication link” (EX1204, [0081]). A POSITA would have understood that this “WiFi direct communication link” utilizes peer-to-peer communication that operates in WiFi ad-hoc mode because it was well known this is how WiFi direct communication links are provided. EX1206, 4:16-17, 13:29, 19:10-12 (claim 15); *see also id.*, 4:5-22, 8:7-13, 13:3-33; EX1218, 250, 261-262. Hoddie, for example,

discloses providing direct, device-to-device Wi-Fi connections by setting up an “ad hoc” Wi-Fi network using “a service set identifier (SSID) and encryption settings.” EX1206, 4:16-19. Frodigh confirms that by at least 2000, “IEEE 802.11 *ad hoc* mode” provided “[f]ully decentralized radio, access, and routing technologies” that supported “direct communication between wireless clients.” EX1218, 250, 261.

Figure 2
Various wireless networks mapped to two independent aspects of *ad hoc* networking: the level of centralized control (horizontal), and the use of radio multihopping (vertical).



EX1218, 250 (FIG. 2) (red annotations added). At the very least it would have been obvious to use peer-to-peer communications in WiFi ad-hoc mode. EX1203, ¶113.

Thus, it would have been at least obvious to a POSITA when implementing a WiFi direct communication link, as taught by Forutanpour, to utilize a peer-to-peer communication that operates in WiFi ad-hoc mode. *Id.*

15. Claims 23, 25-32, 34, 36-37, 43, 49-50

Claims 23, 25-32, 34, 36-37, 43, 49-50 are substantively identical to claims 1, 3-10, 12, 14-15, 21, and 46-47, respectively, but recite circuitry configured to perform the claimed actions. *See* EX1275. In addition to the processor discussed above with respect to claim 1 and its dependents, Forutanpour discloses that its computing devices include other circuitry, such as transceivers configured to perform, or aid in performing, the wireless detection, transfer, sending, receiving, and compatibility determination discussed above with respect to the corresponding method claims. *E.g.*, EX1204, [0063], [0072], [0150-52]; claims 19-20, 22, 27-29, 31. It also discloses a display configured to display the various displayed information. *E.g.*, *id.*, [0009]; [0071]; [0074]; [00123] (“The file sharing functionality application 3408 may communicate with users through the device display 310”); [0150]; claims 19, 30-34; FIG. 31. EX1203, ¶114.

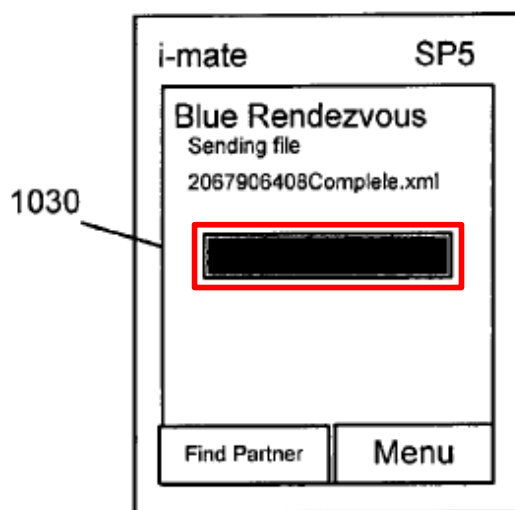
Because Forutanpour discloses performing its disclosed actions with circuitry, including processors and transceivers, these claims are anticipated by or at least obvious over Forutanpour for the reasons provided above in Sections IX.B.1-14. EX1204, [0009], [0070], [0078-80], [0101], [0104], [0128], [0150-156], FIG. 47. EX1203, ¶115.

**X. GROUND 3: CLAIMS 3 AND 25 ARE
OBVIOUS OVER FORUTANPOUR AND HINCKLEY**

To the extent Patent Owner argues that it was not in the POSITA's knowledge to display the transfer progress (claims 3, 25), Ground 3 expressly relies on Hinckley (discussed as a background reference in Grounds 1-2) to confirm the obviousness of this feature. EX1203, ¶116.

Hinckley (EX1207) is presumptively prior art under at least Sections 102(a)(1) and 102(b)(1) because it published on August 16, 2007. Hinckley is analogous art to the '054 patent because they are both within the same field of endeavor: data transfer between wireless devices. EX1201, Title; EX1207, Abstract, [0010-12]; EX1203, ¶117.

As explained above for Grounds 1-2, Hinckley discloses displaying a “progress bar” that “gives feedback on the transfer” to the user. EX1207, [0058].



EX1207, FIG. 10 (excerpted) (red annotations added). EX1203, ¶118.

A POSITA would have been motivated to program the Forutanpour devices to display the progress of the transfer, as taught by Hinckley, so that the user could “estimate how much of the task has been completed and when the task will be finished,” as was well known in the art. EX1231, 11-12, 16-17. A POSITA would have had a reasonable expectation of success in implementing this functionality in the Forutanpour devices because it would have required only elementary computer code that was well within the programming skill of a POSITA, as evidenced by the widespread use of such functionality in the art. EX1203, ¶119.

**XI. GROUND 4: CLAIMS 12 AND 34 ARE
OBVIOUS OVER FORUTANPOUR AND HODDIE**

To the extent Patent Owner argues that it was not in the POSITA’s knowledge to determine that the selected WTRU is compatible to transfer the selected media element (claims 12, 34), Ground 4 expressly relies on Hoddie (cited above as a background reference in Grounds 1-2) to confirm the obviousness of this feature. EX1203, ¶120.

Hoddie (EX1206) is presumptively prior art under at least Sections 102(a)(1) and 102(b)(1) because it published on November 10, 2005. Hoddie is analogous art to the ’054 patent because they are both within the same field of endeavor: data

transfer between wireless devices. EX1201, Title; EX1206, Abstract, 1:24-6:11, 17:3-16 (claim 1); EX1203, ¶121.

Hoddie discloses detecting nearby wireless devices using Bluetooth and then determining whether the device is compatible to receive a media element over a different, higher bandwidth interface (e.g., Wi-Fi) to expedite the transfer. EX1206, 3:2-4:26, 7:16-33, 9:9-11:7, 12:10-13:33. “The devices determine compatible interfaces” and either “agree upon a compatible interface” or “end the communication” (e.g., if the receiving device is not compatible to receive the file over Wi-Fi). *Id.*, 12:24-13:13. EX1203, ¶122.

A POSITA would have been motivated to implement the Forutanpour wireless computing device to determine whether the receiving device is compatible to receive the selected media over Wi-Fi, as taught by Hoddie, to ensure the receiving device can actually receive the media element, especially since it was well known in the art to check device compatibility before initiating a transfer to ensure the transfer is successful. EX1205, [0014-15], [0045]; EX1206, 12:15-13:33; EX1229, [0011]; EX1242, [0007]; EX1238, Abstract, [0010-11], [0013-29], [0046], [0063-64], [0070-74], [0079-80], claims 13-18, FIG. 2; EX1267, [0046]. A POSITA would have had a reasonable expectation of success in implementing this functionality because it would have required only elementary computer code that

was well within the programming skill of a POSITA, as evidenced by the numerous prior art references that disclose this compatibility check. *Id.* EX1203, ¶123.

**XII. GROUND 5: CLAIMS 10 AND 32 ARE
OBVIOUS OVER FORUTANPOUR AND HEINONEN**

To the extent Patent Owner argues that it was not in the POSITA's knowledge to provide Bluetooth discovery using a service discovery protocol (claims 10, 32), Ground 5 expressly relies on Heinonen (discussed as a background reference in Grounds 1-2) to confirm the obviousness of this feature. EX1203, ¶124.

Heinonen (EX1274) is presumptively prior art under at least Sections 102(a)(1) and 102(b)(1) because it published on December 22, 2005. Heinonen is analogous art to the '054 patent because they are both within the same field of endeavor: data transfer between wireless devices. EX1201, Title; EX1274, Title, Abstract, [0001]. EX1203, ¶125.

Heinonen confirms that Bluetooth discovery is provided, at least in part, using a service discovery protocol (SDP). EX1274, [0003], [0006], [0013-15]. For example, Heinonen's background states that "Bluetooth devices are designed to find other Bluetooth devices ... and to discover what services they offer, using a service discovery protocol (SDP)." EX1274, [0003]. EX1203, ¶126.

Thus, as explained above for grounds 1-2 (Section IX.B.9), SDP is used to determine whether a detected device is "like-equipped" because it discovers the

services that the other device supports. Given Forutanpour's instruction to discover like-equipped devices using Bluetooth (EX1204, [0072]), a POSITA would have been motivated with a reasonable expectation of success to use SDP to discover these like-equipped devices at least because this is how it was ubiquitously done in the art, as confirmed by Heinonen and others. EX1274, [0003], [0006], [0013-15]; EX1214, 69-98; EX1253, 331-391; EX1239, 96, 101-102. EX1203, ¶127.

XIII. CONCLUSION

Petitioners request institution of *inter partes* review and cancellation of the challenged claims on the grounds presented herein.

Respectfully submitted,

Dated: February 9, 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 11,796 words, excluding the parts of the brief exempted by
37 C.F.R. § 42.24(a).

The brief has been prepared in a proportionally spaced typeface using
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**CERTIFICATE OF SERVICE
IN COMPLIANCE WITH 37 C.F.R. § 42.6(E)(4)**

The undersigned certifies that the **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,173,054** and **EXHIBITS 1201-1210, 1212-1239, 1242, 1244-1251, 1253-1255, 1257-1262, 1265-1272, 1274-1279, 1281-1282, and 1285** were served on February 9, 2024, via **Express Mail** on the Patent Owner at the following address of record as listed on the USPTO Patent Center:

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Counsel for Petitioner further certifies that a courtesy copy of the **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,173,054** was served on counsel of record for the Patent Owner in IPR2024-00305 via electronic mail as follows:

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