Microsoft Corporation

v.

InterDigital Patent Holdings, Inc.

IPR2024-00305 | U.S. Patent No. 8,737,933

IPR2024-00306 | U.S. Patent No. 9,173,054

Demonstratives of Petitioner Microsoft Corporation

April 15, 2025

Klarquist

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issues

1. Whether Patent Owner established a presumption of nexus.
   a. AirDrop embodies the claims?
   b. AirDrop coextensive with the claims?

2. Assuming *arguendo* a presumption, whether it is rebutted.

3. Whether Patent Owner established a nexus in fact.

4. Whether secondary considerations outweigh the undisputed prima facie case of obviousness.

A Presumption Requires Two Showings

"A rebuttable presumption of nexus may be established if a patent owner shows that a specific product (1) '*embodies* the claimed features,' *and* (2) '*is coextensive with* [the claimed features]."'

Fox Factory, Inc. v. SRAM, LLC, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (citations omitted) (emphasis added) (quoted by Reply in IPR2024-00305 (Paper 33) at 2-3; Reply in IPR2024-00306 (Paper 33) at 2-3).

AirDrop Does Not Embody the Claims

Element 1.b: detecting using / over Bluetooth

'933 claim element 1.b

[1.b] detecting, by the WTRU using Bluetooth,
a plurality of WTRUs
in proximity to the WTRU;

IPR2024-00305: **POR (Paper 22), 16**

'054 Claim element 1.b

[1.b] detecting, by the WTRU over bluetooth,
another WTRU;

IPR2024-00306: **POR (Paper 22), 16**

AirDrop: detecting uses WiFi, not Bluetooth

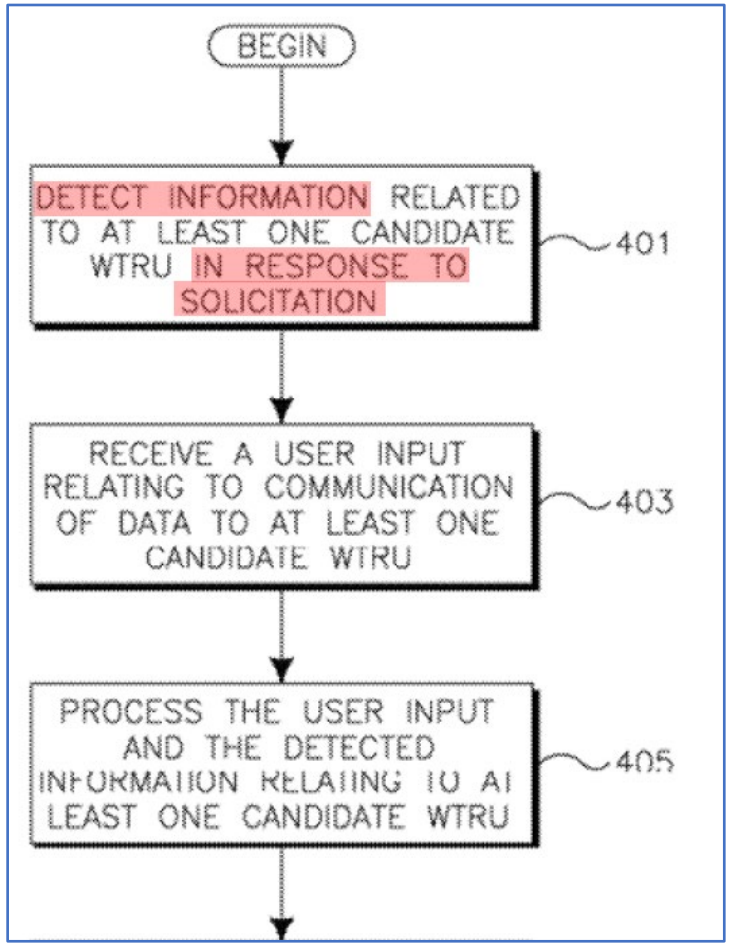
Patent Owner's alleged mapping to AirDrop

As shown below, when a user selects AirDrop as the method for sharing an item, the user's device emits a Bluetooth signal. "Other Apple devices that are awake, in close proximity, and have AirDrop turned on, detect the signal and respond using peer-to-peer Wi-Fi, so that the sending device can discover the identity of any responding devices." Ex-2014, 2 (Ex-2055, 89-91); Ex-2020, 2 (Ex-2055, 74-78) ("When you've got something you want to share, AirDrop shows you your contacts close by.").

IPR2024-00305: **POR (Paper 22), 16-17**; IPR2024-00306: **POR (Paper 22), 16-18**

Soliciting Differs From Detecting

'933 Patent, Fig. 4



IPR2024-00305: **EX1001, Fig. 4** (cited by Reply (Paper 33), 5); *see also* IPR2024-00306: **EX1001, Fig. 4** (cited by Reply (Paper 33), 5)

Rysavy: soliciting "a separate act" from detecting

EX1001, Fig. 4 (highlighting added). The '933 patent consistently describes that environment information on nearby devices is solicited and then, subsequently in a separate act, detected: "Environment information 301 is *solicited* and information related to at least one candidate WTRU 101c … is *detected* 401." *Id.*, 7:8–11 (emphasis added).

IPR2024-00305: **EX1086, ¶ 10** (cited by Reply (Paper 33), 5); *see also* IPR2024-00306: **EX1086, ¶ 10** (cited by Reply (Paper 33), 5)

Rysavy on "Detecting"

11. As written, the claims require detecting using Bluetooth, not performing some other preceding step (such as solicitation) using Bluetooth: "detecting, by the WTRU using Bluetooth, a plurality of WTRUs in proximity to the WTRU." EX1001, 10:58-59; *see also id.*, 12:11-12. Within this claim language, "the WTRU" is clearly the sending device. Thus, the sending device must detect using a received Bluetooth signal. This confirms that a POSITA reading the claims would understand that the claimed detecting occurs at the sending device using messages received from other nearby devices, as distinct from any soliciting or inquiring messages transmitted from the sending device to other devices.

IPR2024-00305: **EX1086, ¶ 11** (cited by Reply (Paper 33), 6);
see also IPR2024-00306: **EX1086, ¶ 11** (cited by Reply (Paper 33), 6)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Rysavy on "Detecting"

13. Thus, given all the foregoing information, a POSITA would understand that the '933 claim language "detecting, by the WTRU using Bluetooth, a plurality of WTRUs in proximity to the WTRU" (EX1001, 10:58-59; *see also id.*, 12:11-12) requires that the sending device detect another device using a Bluetooth signal from that other device. The POSITA would understand that this claim language is not met by the sending device *emitting* a Bluetooth signal for solicitation or some other similar purpose.

IPR2024-00305: **EX1086, ¶ 13** (cited by Reply (Paper 33), 6);
see also IPR2024-00306: **EX1086, ¶ 13** (cited by Reply (Paper 33), 6)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Coextensiveness

The product must be the invention "disclosed and claimed"

"[N]exus is presumed only when the product '*is* the invention disclosed and claimed.'"

Campbell Soup Co. v. Gamon Plus, Inc., 10 F.4th 1268, 1277 (Fed. Cir. 2021) (italics original) (quoting *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019)) (cited by Reply in IPR2024-00305 (Paper 33), 12; Reply in IPR2024-00306 (Paper 33), 12)

"The presumption analysis requires the fact finder to consider the unclaimed features of the stated products to determine their level of significance and their impact on the correspondence between the claim and the products."

Teva Pharms. Int'l GmbH v. Eli Lilly & Co., 8 F.4th 1349, 1361 (Fed. Cir. 2021) (citations omitted) (cited by Sur-Reply in IPR2024-00305 (Paper 34) at 8; Sur-Reply in IPR2024-00306 (Paper 34) at 8)

Coextensiveness

Coextensiveness requires more than simply embodying the claims

"The declaration paragraph cited [by Volvo] does little more than confirm *that the Forward Drive embodies the challenged claims* … The Board correctly found the single, conclusory sentence and one-paragraph citation to be *insufficient to show a presumption of nexus*, and '[t]he patentee bears the burden of showing that a nexus exists.'"

Volvo Penta of the Ams., LLC v. Brunswick Corp., 81 F.4th 1202, 1211 (Fed. Cir. 2023) (emphasis added) (citing *Fox Factory*, 944 F.3d at 1373 (testimony and evidence showing that products embodied the claims was insufficient to show coextensiveness) (cited by Reply in IPR2024-00305 (Paper 33), 7; Reply in IPR2024-00306 (Paper 33), 7)

Edwards

Edwards did not testify on coextensiveness:

8. ANALYSIS

8.1. The Independent Claims of the '933 Patent Cover AirDrop

68. The following sections are reproduced from claim charts provided by counsel and that will be included in the POPR, and I have reviewed them and believe them to be correct and am including them in my report for completeness.

69. Apple's licensed AirDrop products include the functionality recited in the Challenged Claims. The following sections identify specific mappings of claim elements to AirDrop functionality and demonstrate nexus between the merits of the claimed invention and the commercial and licensed AirDrop products that are made and sold by Apple.

IPR2024-00305: **EX2001, 29** (highlighting and red annotation added) (cited by POR (Paper 22), 11);
see also IPR2024-00306: **EX2001, 30** (cited by POR (Paper 22), 11);

AirDrop's Unclaimed Features

- Privacy features (device visibility)
- Security features (encryption)
- Device integration / Apple ecosystem

IPR2024-00305: **Reply (Paper 33)**, 7-11
IPR2024-00306: **Reply (Paper 33)**, 7-11

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

AirDrop's Privacy Features

Online article cited by Patent Owner:

AirDrop Depends on Your Contacts for Privacy

By default, AirDrop only makes you discoverable to people who are in your contacts list. If you want to AirDrop with people, they'll need to add you to their contacts, and you'll need to add them as a contact. This shouldn't require much effort -- if you're doing this with someone you know, you're probably already in each other's contacts. If you want to AirDrop with people without adding each other to your contacts, you can always temporarily switch AirDrop to work with everyone, ignoring contacts.

This feature ensures you won't just appear in other people's AirDrop panels as you walk around. People won't be able to see your name if you're nearby, and they won't be able to send anything to you. Only those in your contacts will have permission to see you.

IPR2024-00305: **EX2027, 2** (cited by Reply (Paper 33), 8)
IPR2024-00306: **EX2027, 2** (cited by Reply (Paper 33), 8)

Edwards on AirDrop Privacy

137. Device visibility was also important to give users the sense that they could still control their privacy. The ability to control visibility based on contacts, friends, or complete privacy was present in the successful AirDrop clones. For example, Nearby Share included this feature, and Google recommended that users take advantage of their Device Visibility preferences. 76

IPR2024-00305: **EX2001, ¶ 137** (highlighting added) (cited by Reply (Paper 33), 8)
IPR2024-00306: **EX2001, ¶ 137** (highlighting added) (cited by Reply (Paper 33), 8)

Rysavy on AirDrop Privacy and iCloud Integration

EX2001, ¶60). This visibility feature is material to the functioning of AirDrop because it gives users the peace of mind that they can prevent their devices from appearing to every other nearby device. In addition, this visibility feature shows that AirDrop leverages and relies on iCloud information (EX2014, 2) and thus that integration with iCloud is also material to the functioning of AirDrop. Dr. Edwards

IPR2024-00305: **EX1086, ¶ 16** (highlighting added) (cited by Reply (Paper 33), 9)
IPR2024-00306: **EX1086, ¶ 16** (highlighting added) (cited by Reply (Paper 33), 8)

AirDrop's Security Features

Online article cited by Patent Owner:

Security Concerns

Users can choose to accept AirDrop files from their contacts, or from anyone with the appropriate device, or not at all.

Security will be an obvious concern for most users. Apple states that AirDrop files are "fully encrypted." Even still, it seems likely that someone masquerading as a contact – perhaps posing as a friend seated at the other end of a large college classroom – could send a malicious file that the recipient unwittingly accepts. There are no doubt other potential opportunities for ill intent.

Wireless analyst Jack Gold said: "security will clearly be an issue, despite Apple always claiming it's not. Things get hacked."

IPR2024-00305: **EX2023, 5** (highlighting added) (cited by Reply (Paper 33), 9, 16-17)
IPR2024-00306: **EX2023, 5** (highlighting added) (cited by Reply (Paper 33), 9, 16-17)

The Apple Ecosystem

No presumption of nexus when "integration with Apple's ecosystem" contributed to the success:

"*[T]he whole 'Apple ecosystem,'* which, according to Patent Owner, at the least includes Airpods Products, Apple iPhones, and an 'Apple server,' with the Apple support system providing features such as 'voice assistant' and 'firmware upgrades,' *drives the Airpod Product's success*."

Bose Corp. v. Koss Corp., IPR2021-00680, Paper 37 at 98-104 (P.T.A.B. Oct. 7, 2022) (emphasis added) (finding no presumption of nexus because *inter alia* the "Apple brand" and "integration with Apple's ecosystem" contributed to the success of AirPods products) (cited by Reply in IPR2024-00305 (Paper 33) at 10; IPR2024-00306 (Paper 33) at 10)

The Alleged Objective Indicia

1. **License?** None of record. Reply, 14-15 (Paper 33 in IPR2024-00305 and -00306)
2. **Commercial Success?** No sales or market data of record. *Id.*, 15.
3. **"Industry Commentary"?** Any AirDrop success came from other factors. *Id.*, 15-19.
4. **Copying?** The evidence does not establish copying. *Id.*, 19-21.
5. **Long-felt need?** No evidence of any *pre-existing* need. *Id.*, 21-23.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple Opinion Cited by Sur-Reply

"[Apple] cited numerous internal Samsung documents that both praised Apple's slide to unlock feature and indicated that Samsung should modify its own phones to incorporate Apple's slide to unlock feature. … Such internal documents from the patentee's top competitor represent important admissions."
Apple Inc. v. Samsung Elecs. Co., 839 F.3d 1034, 1053-54 (Fed. Cir. 2016)

"Apple presented a video at trial showing Steve Jobs unveiling the slide to unlock feature at an Apple event. When Mr. Jobs swiped to unlock the phone, 'the audience burst into cheers.'" *Id.* at 1054

"The jury was presented with substantial evidence of praise in the industry that specifically related to features of the claimed invention, thereby linking that industry praise with the patented invention." *Id.*

"Samsung does not challenge on appeal that substantial evidence exists in the record that Samsung copied Apple's slide to unlock feature."

"Apple presented survey evidence that customers would be less likely to purchase a portable device without the slide to unlock feature and would pay less for products without it." *Id.* at 1055

Industry Commentary

Patent Owner's Exhibit 2023:

home, at work, and everywhere else. It's not particularly revolutionary. Rather, AirDrop smartly leverages the core strengths of Apple's unified ecosystem.

IPR2024-00305: **EX2023, 2-3** (cited by Reply (Paper 33), 16)
IPR2024-00306: **EX2023, 2-3** (cited by Reply (Paper 33), 16)

Ecosystem Benefits

There are some very obvious caveats to all this, of course, despite the potential. Chiefly, in practice, AirDrop may ultimately deliver limited user value.

IPR2024-00305: **EX2023, 3** (cited by Reply (Paper 33), 16)
IPR2024-00306: **EX2023, 3** (cited by Reply (Paper 33), 16)

Direct connection between the devices to move files between points. The use of iCloud allows AirDrop to know other users' locations and theoretically makes file sharing easier. In contrast, Android Beam

IPR2024-00305: **EX2023, 4** (cited by Reply (Paper 33), 16)
IPR2024-00306: **EX2023, 4** (cited by Reply (Paper 33), 16)

Industry Commentary

Patent Owner's Exhibit 2023:

This is where Apple's ecosystem control delivers enhanced benefits to users. Two users wanting to transfer files will be able to open the same app, at the same time with the same results. While Android

IPR2024-00305: **EX2023, 4** (highlighting added) (cited by Reply (Paper 33), 16-17)
IPR2024-00306: **EX2023, 4** (highlighting added) (cited by Reply (Paper 33), 16)

Analysts estimate that at least 550 million devices are now running iOS 6. If Apple can just as quickly transition them to iOS 7, that's a massive potential user base with which to AirDrop the latest viral video, family photo, office gossip, or hit song.

IPR2024-00305: **EX2023, 4** (highlighting added) (cited by Reply (Paper 33), 16-17)
IPR2024-00306: **EX2023, 4** (highlighting added) (cited by Reply (Paper 33), 16)

Industry Commentary

Patent Owner's Exhibit 2034:

The actual tech behind Android Nearby Share is a little different from AirDrop, but the concept is the same. It uses Bluetooth, Wi-Fi, or NFC to transfer files between devices, and it determines which method is best on the fly. AirDrop, on the other hand, sticks to using Wi-Fi and Bluetooth, establishing

IPR2024-00305: **EX2034, 1** (highlighting added) (cited by Reply (Paper 33), 20)
IPR2024-00306: **EX2034, 1** (highlighting added) (cited by Reply (Paper 33), 19-20)

It's the ecosystem, maaaaan

But while both AirDrop and Nearby Share are similarly easy to use, and about as effective as each other for a simple phone-to-phone transfer, there's still one way in which AirDrop is better — and it makes it *much* better. That's the ecosystem.

IPR2024-00305: **EX2034, 1** (highlighting added) (cited by Reply (Paper 33), 20)
IPR2024-00306: **EX2034, 1** (highlighting added) (cited by Reply (Paper 33), 19-20)

Industry Commentary

Patent Owner's Exhibit 2034:

Of course, this is a much wider issue than just file transfer tech. Unfortunately, Apple is really the only company that offers a complete device ecosystem. You could, and maybe you already do, own and use

IPR2024-00305: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)
IPR2024-00306: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)

It's hard to imagine how Google could make a better experience with Android Nearby Share. It's a solid feature — and actually, it's a necessary one that should've been here a long time ago. It handles the basics, but without the weight of a full ecosystem of products behind it, it can't compete. With no way to integrate with Apple devices, no Windows support, and a *very* small market share with Android tablets, Nearby Share's prospects for competing with AirDrop are slim.

IPR2024-00305: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)
IPR2024-00306: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)

There's still one way in which AirDrop is better — and it makes it *much* better. That's the ecosystem.

IPR2024-00305: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)
IPR2024-00306: **EX2034, 2** (highlighting added) (cited by Reply (Paper 33), 17 & 20)

Industry Commentary

Edwards on EX2034:

A. I think what this is saying is that while the file transfer capabilities are essentially the same between AirDrop and Nearby Share, that because there are many more Apple devices, that there is the potential for transfer with more devices with AirDrop than there is with Nearby Share which is a function of Apple's importance in the marketplace as opposed to a technical difference between the features themselves.

IPR2024-00305: **EX1088, 15:15-23** (highlighting added) (cited by Reply (Paper 33), 17)
IPR2024-00306: **EX1088, 15:15-23** (highlighting added) (cited by Reply (Paper 33), 16)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Industry Commentary

Patent Owner's Sur-Reply:

> *See* Paper 22, 42-46. Microsoft's Nearby Sharing, however, never reached the success of AirDrop because Microsoft made the design choice to only allow compatibility between PCs compared to AirDrop's compatibility with many devices. Nevertheless, reviewers considered Nearby Sharing to be a copy of AirDrop. Ex-

IPR2024-00305: **Sur-Reply (Paper 34), 22** (highlighting added)
IPR2024-00306: **Sur-Reply (Paper 34), 22** (highlighting added)

Industry Commentary

Patent Owner's Exhibit 2025:

> Apple has a great feature built into OS X called AirDrop. This feature allows files to be sent between Macs that are connected to the same Wi-Fi network. It's a great way to share files between systems,

IPR2024-00305: **EX2025, 1** (highlighting added) (cited by Sur-Reply (Paper 34), 19)
IPR2024-00306: **EX2025, 1** (highlighting added) (cited by Sur-Reply (Paper 34), 19)

Long-Felt Need?

"Evidence that an invention satisfied a long-felt and unmet need *that existed on the patent's filing date* is a secondary consideration of nonobviousness."

Perfect Web Techs., Inc. v. InfoUSA, Inc., 587 F.3d 1324, 1332–33 (Fed. Cir. 2009) (emphasis added) (citing *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 998 (Fed. Cir. 2009)) (cited by Reply (Paper 33 in IPR2024-00305), 2, 22)

Patent Owner's Sur-Reply:

Beam, however, could not meet the industry need created by AirDrop and would

IPR2024-00305: **POR (Paper 22), 42** (highlighting added); *see also id.*, 48 ("[AirDrop] created an unresolved need")
IPR2024-00306: **POR (Paper 22), 42** (highlighting added); *see also id.*, 48 ("[AirDrop] created an unresolved need")

Bluetooth Detection and Wi-Fi Data Transfer

"[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."
Ormco Corp. v. Align Tech., Inc., 463 F.3d 1299, 1311–12 (Fed.Cir.2006) (quoted by Reply (Paper 33 in IPR2024-00305), 13)

Patent Owner's Sur-Reply:

this assertion. Patent Owner has provided multiple articles denoting the success of AirDrop due to its ability to quickly locate nearby devices using Bluetooth and subsequently send files over Wi-Fi. Ex-2023 (Ex-2055, 68-73); Ex-2024 (Ex-2055,

IPR2024-00305 & IPR2024-00306: **Sur-Reply (Paper 34), 20** (highlighting added)

Id. at 23. This argument fails because Patent Owner has been clear: The speed and convenience of AirDrop is directly the result of the claimed Bluetooth for proximity detection and Wi-Fi for fast file transfer.

IPR2024-00305 & IPR2024-00306: **Sur-Reply (Paper 34), 24** (highlighting added)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Bluetooth Detection and Wi-Fi Data Transfer

"[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."
Ormco Corp. v. Align Tech., Inc., 463 F.3d 1299, 1311–12 (Fed.Cir.2006) (quoted by Reply (Paper 33 in IPR2024-00305), 13)

Petition:

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. EX1003, ¶¶38-45.

IPR2024-00305 & IPR2024-00306: **Petition (Paper 2), 4-5**

Appendix

AirDrop Detects Using WiFi

Apple support webpage relied on by Patent Owner

When a user chooses AirDrop as the method for sharing an item, the sending device emits an AirDrop signal over BLE that includes the user's AirDrop short identity hash. Other Apple devices that are awake, in close proximity, and have AirDrop turned on, detect the signal and respond using peer-to-peer Wi-Fi, so that the sending device can discover the identity of any responding devices.

IPR2024-00305: **EX2014, 2** (highlighting added) (quoted by POR (Paper 22), 17)
IPR2024-00306: **EX2014, 2** (highlighting added) (quoted by POR (Paper 22), 17)

’933 Patent Claim 1

1. A method performed by a wireless transmit/receive unit (WTRU), the method comprising:

processing, by the WTRU, a touchscreen input to select a media element;

detecting, by the WTRU using Bluetooth, a plurality of WTRUs in proximity to the WTRU;

processing, by the WTRU, another touchscreen input to select a WTRU of the plurality of WTRUs;

sending, by the WTRU, a message to transfer the selected media element to the selected WTRU;

receiving, by the WTRU, an acceptance to transfer the selected media element to the selected WTRU;

and

transferring, by the WTRU using a WiFi communication, the selected media element to the selected WTRU.

’054 Patent Claim 1

1. A method performed by a wireless transmit/receive unit (WTRU), the method comprising:

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

detecting, by the WTRU over bluetooth, another WTRU;

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

sending, by the WTRU to the selected another WTRU, a message to transfer the selected media;

receiving, by the WTRU, an acceptance to transfer the selected media;

and

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

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CERTIFICATE OF SERVICE
IN COMPLIANCE WITH 37 C.F.R. § 42.6 (E)(4)

The undersigned certifies that on April 11, 2025, a complete copy of **PETITIONER'S DEMONSTRATIVE** was served on counsel for the Patent Owner via electronic mail as follows:

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