UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner

v.

INTERDIGITAL PATENT HOLDINGS, INC.
Patent Owner

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

PATENT OWNER'S RESPONSE

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CASES

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Graham v. John Deere Co.,
383 U.S. 1 (1966).....passim

In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.,
676 F.3d 1063 (Fed. Cir. 2012) 7, 50

In re GPAC Inc.,
57 F.3d 1573 (Fed. Cir. 1995) 9

In re Magnum Oil Tools Int'l, Ltd.,
829 F.3d 1364 (Fed. Cir. 2016) 6

In re Rouffet,
149 F.3d 1350 (Fed. Cir. 1998) 8, 9

Polaris Indus., Inc. v. Arctic Cat, Inc.,
882 F.3d 1056 (Fed. Cir. 2018) 9

WBIP, LLC v. Kohler Co.,
829 F.3d 1317 (Fed. Cir. 2016) 35

Wyers v. Master Lock Co.,
616 F.3d 1231 (Fed. Cir. 2010) 9

TABLE OF EXHIBITS

Exhibit	Description
2001	Declaration of George Edwards *(previously submitted)*
2002	June 21, 2022 Memorandum from Director Vidal to the Members of the Patent Trial and Appeal Board regarding Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation *(previously submitted)*
2003	Case Management Order, *InterDigital, Inc. et al. v. Lenovo Group Limited et al.*, Case No. 5:23-CV-493-FL, Dkt. No. 33 (E.D.N.C. Nov. 30, 2023) *(previously submitted)*
2004	Respondents' Invalidity Contentions in *Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, and Components Thereof*, Investigation No. 337-TA-1373 (ITC Nov. 28, 2023) *(previously submitted)*
2005	Appendix 1 to Respondents' Invalidity Contentions in *Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, and Components Thereof*, Investigation No. 337-TA-1373 (ITC Nov. 28, 2023) *(previously submitted)*
2006	Defendants' Preliminary Invalidity Contentions, *InterDigital, Inc. et al. v. Lenovo Group Limited et al.*, Case No. 5:23-CV-493-FL (E.D.N.C. Jan. 18, 2024) *(previously submitted)*
2007	iOS 7: What's new, https://web.archive.org/web/20130918185729/https://www.apple.com/ios/whats-new/ *(previously submitted)*
2008	OS X: How to use AirDrop, https://support.apple.com/en-us/HT203106 *(previously submitted)*
2009	Use AirDrop on your iPhone, iPad, or iPod touch, https://support.apple.com/en-us/HT204144 *(previously submitted)*

Exhibit	Description
2010	RESERVED
2011	About Bluetooth, Wi-Fi, and cellular on your iPhone, iPad, or iPod touch, https://support.apple.com/en-us/HT204681 *(previously submitted)*
2012	Use AirDrop on your Mac, https://support.apple.com/en-us/HT203106 *(previously submitted)*
2013	Compare iPhone models, https://www.apple.com/iphone/compare/?modelList=iphone-14-pro,iphone-15-pro,iphone-15 *(previously submitted)*
2014	Apple Platform Security, AirDrop security, https://support.apple.com/guide/security/airdrop-security-sec2261183f4/1/web/1 *(previously submitted)*
2015	How to use AirDrop on your iPhone or iPad, https://support.apple.com/en-us/HT204144 *(previously submitted)*
2016	How to use AirDrop on your iPhone or iPad, IDG1373_0003864–3866 *(previously submitted)*
2017	InterDigital Form 8-K, filed by InterDigital, Inc. with the Securities and Exchange Commission on October 2, 2022 *(previously submitted)*
2018	InterDigital Form 10-K, filed by InterDigital, Inc. with the Securities and Exchange Commission on February 13, 2023 *(previously submitted)*
2019	Mike Dano, *InterDigital inks seven-year, $938M patent deal with Apple*, Light Reading, https://www.lightreading.com/5g/interdigital-inks-seven-year-938m-patent-deal-with-apple#close-modal *(previously submitted)*
2020	Apple Unveils iOS 7, https:/ /www.apple.com/newsroom/2013/06/1 0Apple-Unveils-iOS-7 / *(previously submitted)*

Exhibit	Description
2021	RESERVED
2022	RESERVED
2023	Brian Hall, *How iOS 7's AirDrop Could Transform the Way We Share*, ReadWrite, June 28, 2013, https://readwrite.com/ios-7s-airdrop-has-the-potential-to-dramatically-change-how-we-share-content/ *(previously submitted)*
2024	Lucy Hattersley, *AirDrop Review*, Macworld, Sept. 29, 2013, https://www.macworld.com/article/667098/airdrop-review.html *(previously submitted)*
2025	Adrian Kingsley-Hughes, *5 Thing Apple Needs to Fix in iOS, OS X and iCloud*, Forbes, Apr. 17, 2013, https://www.forbes.com/sites/adriankingsleyhughes/2013/04/17/5-things-apple-needs-to-fix-in-ios-os-x-and-icloud/?sh=5fc4eb5b49c0 *(previously submitted)*
2026	Georgi Zarkov, *With Samsung's Answer to AirDrop, You Can Even Send Files to Your Fridge*, Phone Arena, Jan. 24, 2020 *(previously submitted)*
2027	Chris Hoffman, *AirDrop 101: Easily Send Content Between Nearby iPhones, iPads, and Macs*, How-To-Geek, Jan. 31, 2015, https://www.howtogeek.com/208143/use-airdrop-to-wirelessly-send-content-between-nearby-iphones-ipads-and-macs/ *(previously submitted)*
2028	Catherine Shu, *Google to Close Bump and Flock, Its Recently Acquired File Sharing Apps*, Tech Crunch, Jan. 1, 2014, https://techcrunch.com/2013/12/31/google-to-close-bump-and-flock-its-recently-acquired-file-sharing-apps/ *(previously submitted)*

Exhibit	Description
2029	Padla Rei, *Android Beam API Being Deprecated by Google*, Android Community, Dec. 20, 2018, https://androidcommunity.com/android-beam-api-being-deprecated-by-google-20181220/ *(previously submitted)*
2030	Pratik Ghone, *How to Nearby Share? Apple has AirDrop; Android has Nearby Share*, Exhibit.tech, Feb. 20, 2024, https://www.exhibit.tech/trending-tech-news/how-to-nearby-share-apple-has-airdrop-android-has-nearby-share *(previously submitted)*
2031	Tomio Geron, *Google Acquires Bump Mobile App*, Forbes, September 16, 2013, https://www.forbes.com/sites/tomiogeron/2013/09/16/google-acquires-bump-mobile-app/?sh=30f58b322975 *(previously submitted)*
2032	Charles Arthur, *Google Buys Smartphone File-Swapping App Bump as Sharing Grows*, The Guardian, Sept. 17, 2013, https://www.theguardian.com/technology/2013/sep/17/google-bump-smartphone-apple-airdrop *(previously submitted)*
2033	Anthony Wing Kosner, *Apple Has Developers (Mostly) Convinced that iOS 7 Will Make Them More Money*, Forbes, June 12, 2013, https://www.forbes.com/sites/anthonykosner/2013/06/12/apple-has-developers-mostly-convinced-that-ios-7-will-make-them-more-money/?sh=299b3ced71d7 *(previously submitted)*
2034	Christopher de Looper, *Android's Nearby Share Just Can't Compete with AirDrop*, DigitalTrends, Feb. 9, 2021, https://www.digitaltrends.com/mobile/android-nearby-share-stacks-up-against-apple-airdrop/ *(previously submitted)*
2035	Jacob Kastrenakes, *Google's Files Go App is Kind of Like AirDrop for Android*, The Verge, Nov. 7, 2017, https://www.theverge.com/2017/11/7/16617380/google-files-go-app-android-airdrop-file-management *(previously submitted)*

Exhibit	Description
2036	Tom Warren, *Windows 10's Version of AirDrop Lets You Quickly Share Files Between PCs*, The Verge, Nov. 8, 2017, https://www.theverge.com/2017/11/8/16625130/microsoft-windows-10-airdrop-near-share-feature *(previously submitted)*
2037	Mishaal Rahman, *Google's Fast Share is an Upcoming AirDrop-like File Sharing Tool for Android*, XDA Developers, June 29, 2019, https://www.xda-developers.com/fast-share-android-beam-airdrop-android/ *(previously submitted)*
2038	Aamir Siddiqui, *Fast Share, Google's Upcoming AirDrop-like Service, Gets Renamed to Nearby Sharing Ahead of Release*, XDA Developers, Jan. 13, 2020, https://www.xda-developers.com/fast-share-google-upcoming-airdrop-service-renamed-nearby-sharing/ *(previously submitted)*
2039	Richard Nieva, *Android is Finally Getting Its Vesion of Apple's AirDrop*, CNet, Aug. 4, 2020, https://www.cnet.com/tech/mobile/android-is-finally-getting-its-version-of-apples-airdrop-called-nearby-share/ *(previously submitted)*
2040	David Pierce, *Google's AirDrop Competitor, Nearby Share, is Reportedly Getting a Big Upgrade*, The Verge, Apr. 19, 2022, https://www.theverge.com/2022/4/19/23032545/google-nearby-share-airdrop-update-android *(previously submitted)*
2041	Max Weinbach, *Quick Share is Samsung's Alternative to AirDrop for Galaxy Phones*, XDA Developers, Jan. 23, 2020, https://www.xda-developers.com/quick-share-samsung-alternative-airdrop-galaxy-phones/ *(previously submitted)*
2042	Lisa Eadicicco, *Samsung just added 2 of the iPhone's most-coveted features to its new Galaxy S20 phones*, Bus. Insider, Feb. 12, 2020, https://www.businessinsider.com/samsung-galaxy-s20-apple-iphone-best-features-airdrop-facetime-2020-2 *(previously submitted)*

Exhibit	Description
2043	Steven Musil, *Samsung Reportedly Working on Quick Share, an AirDrop-like Sharing Feature*, CNet, Jan. 23, 2020, https://www.cnet.com/tech/mobile/samsung-reportedly-working-on-quick-share-an-airdrop-like-sharing-feature/ *(previously submitted)*
2044	Chris Welch, *Samsung Confirms its AirDrop-like 'Quick Share' is Launching on the Galaxy S20*, The Verge, Feb. 11, 2020, https://www.theverge.com/2020/2/11/21133825/samsung-galaxy-s20-quick-share-airdrop-easy-sharing-feature *(previously submitted)*
2045	Nelson Aguilar, *AirDrop for Windows? Check Out Android's New File-Sharing Tool for the PC*, CNet, July 20, 2023, https://www.cnet.com/tech/services-and-software/airdrop-for-windows-check-out-androids-new-file-sharing-tool-for-the-pc/ *(previously submitted)*
2046	Aisha Malik, *Google and Samsung are merging Nearby Share and Quick Share into a singular cross-Android solution*, Tech Crunch, Jan. 9, 2024, https://techcrunch.com/2024/01/09/google-and-samsung-are-merging-nearby-share-and-quick-share-into-a-single-sharing-solution/ (available at https://web.archive.org/web/20240915140652/https://techcrunch.com/2024/01/09/google-and-samsung-are-merging-nearby-share-and-quick-share-into-a-single-sharing-solution/) (last visited September 25, 2024) *(previously submitted)*
2047	*Google announces AirDrop-like feature called Quick Share for Pixel phones; Know how it will work*, The Bus. Standard, Feb. 1, 2024, https://www.tbsnews.net/tech/google-announces-airdrop-feature-called-quick-share-pixel-phones-know-how-it-will-work-785766 *(previously submitted)*

Exhibit	Description
2048	Order No. 18: Initial Determination Granting-in-Part Joint Motion to Amend the Procedural Schedule and Extend the Target Date by One Month, *Certain Electronic Devices, Including Smartphones, Computers, Tablet Computers, and Components Thereof*, Investigation No. 337-TA-1373 (ITC Dec. 20, 2023) *(previously submitted)*
2049	Microsoft Support, Sharing things with nearby devices in Windows, https://support.microsoft.com/en-us/windows/share-things-with-nearby-devices-in-windows-0efbfe40-e3e2-581b-13f4-1a0e9936c2d9 *(previously submitted)*
2050	Microsoft Support, Fix problems with nearby sharing in Windows, https://support.microsoft.com/en-us/windows/fix-problems-with-nearby-sharing-in-windows-e6f5db3a-48c3-04f6-13d6-84db6f821455 *(previously submitted)*
2051	Windows Experience Blog, What's new in the Windows 10 April 2018 Update, https://blogs.windows.com/windowsexperience/2018/04/30/whats-new-in-the-windows-10-april-2018-update/ *(previously submitted)*
2052	Kevin Parrish, *How to Use Nearby Share on Android Devices*, DigitalTrends, Feb. 26, 2021, https://www.digitaltrends.com/mobile/how-to-use-nearby-share-on-android/ *(previously submitted)*
2053	Ed Bott, *Windows 10 Tip: Use Nearby Sharing to Transfer Files, Photos, and More*, ZDNet, July 14, 2018, https://www.zdnet.com/article/windows-10-tip-use-nearby-sharing-to-transfer-files-photos-and-more/ *(previously submitted)*
2054	Michael Muchmore, *How to Use Nearby Sharing in Windows 10*, PCMag, May 4, 2018, https://www.pcmag.com/how-to/how-to-use-nearby-sharing-in-windows-10 *(previously submitted)*

Exhibit	Description
2055	Declaration of Nathaniel E. Frank-White, July 25, 2024

InterDigital Patent Holdings, Inc. ("Patent Owner" or "InterDigital") submits this Patent Owner Response to the Petition for *Inter Partes* Review ("Petition") of claims 1-9, 11, 13-14, 20-31, 33, 35-36, and 42-44 of U.S. Patent No. 8,737,933 ("the '933 Patent") filed by Microsoft Corporation ("Petitioner" or "Microsoft").

I. INTRODUCTION

The Board should find all of the Challenged Claims patentable because secondary considerations of nonobviousness definitively prove that the Challenged Claim are not obvious in view of the prior art cited by Petitioner. The functionality recited in the claims of the '933 Patent supports a novel method (Claim 1) and system (Claim 23) for transferring data, or media elements, between nearby wireless transmit and receive units (WTRUs). As shown in detail below, the subject matter of the Challenged Claims has been incorporated into systems sold by Apple (AirDrop), Microsoft (Nearby Sharing), Google (Files Go, Fast Share/Nearby Share, and Quick Share) and Samsung (Quick Share). Apple set the trend when it launched its AirDrop system in 2013. Since that time, other competitors in the industry, including those listed above, have tried unsuccessfully to develop their own wireless media transfer systems that include the functionality recited in the Challenged Claims but have failed. Each of the competitors has, over time, returned to the system used by Apple and recited in the Challenged Claims—Bluetooth detection of nearby devices followed by a Wi-Fi transfer of media between nearby devices.

The substantial evidence presented below shows that the Challenged Claims of the ’933 Patent are not obvious because no one in the industry combined the features of the Challenged Claims prior to the priority date of the ’933 Patent. Moreover, the features recited in the Challenged Claims, and embodied in the Apple AirDrop system, have been commercially successful, have received substantial commercial acclaim, solved a long-felt but unresolved need for the claimed features, and are being copied by others that are seeking to compete with AirDrop—and thus the inventions recited in the Challenged Claims.

Patent Owner respectfully requests that the Board find all of the Challenged Claims patentable.

II. BACKGROUND

A. The ’933 Patent

The ’933 Patent includes two independent claims, Claims 1 and 23, and each of these claims, along with numerous claims that depend from Claims 1 and 23, have been challenged in the Petition. Pet. 2. Specifically, Petitioner has challenged the patentability of claims 1-9, 11, 13-14, 20-31, 33, 35-36, and 42-44 (collectively, the “Challenged Claims”).

The ’933 Patent describes, among other things, a device and method for wirelessly transferring data from a touchscreen device. According to the method of the patent, a user may select a file to transfer from a touchscreen device. The

processor of the touchscreen device uses Bluetooth to detect nearby devices, from which the user can select a target device. After sending a message to the target device to transfer the selected file, and receiving an acceptance, the touchscreen device transfers the file to the target device using Wi-Fi. Claim 1 of the ’933 Patent is representative and is shown below.

> 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.

Ex-1001, 10:54-67. As specifically recited in Claim 1, the wireless transmit/receive

unit ("WTRU") is a touchscreen device capable of receiving touchscreen inputs. *Id*., Figure 1; 2:42-45 ("In general, WTRU 101, and WTRU 103 are each minimally comprised of an application processor 105, a communication peripheral 107, and a touchscreen/display peripheral 109.").

The WTRU is capable of processing a touchscreen input from a user indicating that a media element is desired to be transmitted to a second device. *Id*., 8:6-45. When such an input is detected, the transmitting WTRU relies on a communication technology to detect another WTRU (e.g., a target WTRU) in proximity to the transmitting WTRU. These communications technologies can "include technologies such as a third generation partnership (3GPP) second or third generation standards (2G/3G) modem, Bluetooth© or WiFi©." Ex-1001, 2:61-63. Furthermore, the specification of the '933 Patent makes clear that "[a]ny combination or all of these communication technologies may be implemented in a single component design." *Id*., 2:63-65.

In a specific embodiment, the '933 Patent discloses that environment information can be gathered by the transmitting WTRU about target WTRUs, and the information gathering process can be "gathered via a service discovery protocol (SDP) such as currently available protocols such as Bluetooth© …." *Id*., 5:38-40. This same protocol enables the transmitting WTRU to discover other information about target WTRUs. *Id*., 5:38-6:17. The information collected by the transmitting

WTRU enables the transmitting WTRU to understand the capabilities of the target WTRU and generate configuration information that can be used to prepare "instructions for implementing the transfer process through specific components in the communication peripheral." Ex-1001, 5:38-6:17; 6:50-7:6.

Once a desired target WTRU has been identified, a user can select that specific target WTRU from among other available WTRUs. Ex-1001, 7:7-22. The transmitting WTRU can then send a message to the target WTRU to determine whether the user of the target WTRU is willing to receive the transfer of information (which may be media element such as a digital photograph, video file, word processing document, or other media element, Ex-1001, 8:28-32). Ex-1001, Abstract; Claim 1; Claim 23. If the user accepts the request to transfer the media element, the media element can be transferred to the target WTRU. *Id*., Abstract; 8:60-63; Claim 1; Claim 23. The transfer may be based on the aforementioned configuration information, which accounts for "settings for attributes such as power level, antenna orientation, security parameters, and the like." *Id*., 6:50-7:6. Thus, in some embodiments, the transfer of the media element data may be completed using one of the communication technologies disclosed in the '933 Patent, including Bluetooth© and Wi-Fi©. Ex-1001, 2:46-49; 2:55-65; 4:53-65; 6:50-7:6; Claim 1; Claim 23.

B. Claim Construction

For the sake of this Response only, Patent Owner adopts Petitioner's position that no constructions are required.

C. Person of Skill in the Art

Petitioner contends that a "person of ordinary skill in the art in December 2008 ("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." Patent Owner has adopted Microsoft's definition for this proceeding.

III. ARGUMENT

A. Secondary Considerations of Non-Obviousness Prove that the Challenged Claims are Patentable

"To satisfy its burden of proving obviousness, a petitioner cannot employ merely conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380–81 (Fed. Cir. 2016). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill

in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *Garmin Intl., Inc. v. Wisconsin Archery Prods.*, LLC, IPR2018-01137, Paper 31 at 46 (PTAB Dec. 9, 2019) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

Secondary considerations of non-obviousness "guard as a check against hindsight bias." *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). Secondary considerations serve to avoid having a fact finder "develop a hunch that the claimed invention was obvious, and then construct a selective version of the facts that confirms that hunch." *Id*. "Objective evidence of non-obviousness may often be the most probative and cogent evidence in the record and may often establish that an invention appearing to have been obvious in light of the prior art was not." *Fox Factory Inc. v. SRAM LLC*, Case IPR2016-01876, Paper 8, 23 (PTAB Apr. 2, 2018) (internal quotations omitted).

As noted above in Section II.A, the inventions claimed in the '933 Patent relate to a method and device for wirelessly transferring information. According to the claims of the patent, a user may select a file to transfer from a touchscreen device. The processor of the touchscreen device uses Bluetooth to detect nearby devices, from which the user can select a target device. After sending a message to the target device and transfer the selected information, and receiving an acceptance, the

touchscreen device transfers the information to the target device using Wi-Fi.

As shown in detail below, this same functionality is embodied in products made and sold by Apple. The evidence provided below shows that the inventions recited in the claims of the ’933 Patent are embodied in Apple’s AirDrop products, are not obvious, and these secondary considerations overcome the obviousness case presented in the Petition.

The evidence presented below shows that the commercial success, industry praise, copying, and long-felt, but unresolved need relating to Apple’s commercial products, which embody the claims of the Challenged Patent, show that the Challenged Claims are patentable. All of these factors weigh heavily in favor of non-obviousness as explained below and in the declaration of Dr. George Edwards (Ex-2001).

1. There is a Nexus Between the Benefits of the Claimed Invention and Apple’s Commercial AirDrop Product

“[O]bjective evidence of nonobviousness includes copying, long felt but unsolved need, failure of others, commercial success, unexpected results created by the claimed invention, unexpected properties of the claimed invention, licenses showing industry respect for the invention, and skepticism of skilled artisans before the invention.” *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998) (internal citations omitted). For evidence of secondary considerations of non-obviousness “to be

accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the claimed invention." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010) (quoting *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)). A patentee is entitled to a presumption of nexus "when the patentee shows that the asserted objective evidence is tied to a specific product and that product 'embodies the claimed features, and is coextensive with them.'" *Fox Factory*, 944 F.3d at 1373 (quoting *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000))). In other words, a presumption of nexus is proper when the "patentee shows that the asserted evidence is tied to a specific product and that product '*is* the invention disclosed and claimed.'" *Id*. Because there may be instances in which a perfect correspondence between a product and the claimed invention may not exist, courts only require that the "patentee demonstrate that the product is essentially the claimed invention." *Id*. at 1374. "Thus, if [additional] unclaimed features amount to nothing more than . . . insignificant features, presuming nexus may nevertheless be appropriate." *Id*.

As shown below, there is a presumptive nexus between the evidence presented, the Challenged Claims, and Apple AirDrop.

a. Apple's AirDrop System

Apple AirDrop is a feature that allows users to share files, photos, videos,

contacts, and other data wirelessly between nearby Apple devices, such as iPhones, iPads, Macs, and iPods. AirDrop uses a combination of Bluetooth and Wi-Fi to establish a peer-to-peer connection and transfer data securely and quickly, without requiring an internet connection or a common network. Ex-2007, 8-9 (Ex-2055, 127-144); Ex-2008, 1-3 (Ex-2055, 122-126).[1]

AirDrop was introduced in Apple iOS 7, which was released on September 18, 2013, as part of the redesigned Apple Control Center. To use AirDrop, the sender can choose a file or content they want to share and tap or click the AirDrop icon, which will show a list of nearby devices that are also using AirDrop. The sender can then select the device they want to share with, and the receiver will get a notification asking them to accept or decline the transfer. If the receiver accepts, the file or content will be downloaded to their device, either to the app that supports it or to the Downloads folder on Mac. Ex-2009, 1-4 (Ex-2055, 117-121); Ex-2011, 1-2 (Ex-2055, 110-116).

AirDrop enables information to be shared between wireless devices by using Bluetooth to discover and pair devices that are within about 40 feet of each other, and Wi-Fi to create a direct link and transfer data at high speeds. AirDrop does not

[1] Parallel citations are provided to Ex-2055, the Declaration of Nathaniel E. Frank-White, Records Request Processor at the Internet Archive.

use the internet or a common network, which means it can work even when there is no cellular or Wi-Fi signal, or when the devices are on different networks. AirDrop also encrypts the data during the transfer, which means it is protected from unauthorized access or interception. Ex-2011, 1 (Ex-2055, 110-116); Ex-2012, 3 (Ex-2055, 106-109).

b. AirDrop Performs the Elements of the Challenged Claims of the '933 Patent

As described above, Apple's AirDrop products include the functionality recited in the Challenged Claims. The following tables identify specific mappings of claim elements to AirDrop functionality and demonstrate nexus between the merits of the claimed invention and the commercial AirDrop products that are made and sold by Apple. *See also* Ex-2001 (Edwards Decl.) at ¶¶ 68-112.

Claim Element	Nexus Between the Claim Element and Apple AirDrop Products
1[pre] A method performed by a wireless transmit/receive unit (WTRU), the method comprising:	Apple AirDrop products are wireless transmit/receive units that perform the claimed method. For example, Apple AirDrop devices can be Apple iPhones or iPads, which are wireless transmit/receive units.

	iPhone 14 Pro iPhone 15 Pro Ex-2013, 1 (Ex-2055, 92-105). For example, Apple devices with iOS 7 or later are touchscreen, Wi-Fi-enabled devices that are pre-installed with AirDrop. *See* Ex-2020, 2 (Ex-2055, 74-78) ("AirDrop is an entirely new way to quickly and easily share content with people nearby."). More specifically, and as shown below, "AirDrop-capable iOS devices and iPad devices running iOS 7 or later" are able to "use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices." Ex-2014, 2 (Ex-2055, 89-91).

AirDrop security

Apple devices that support AirDrop use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices and iPad devices running iOS 7 or later and Mac computers running OS X 10.11 or later. The Wi-Fi radio is used to communicate directly between devices without using any internet connection or wireless access point (AP). This connection is encrypted with TLS.

AirDrop is set to share with Contacts Only by default. Users can also choose to use AirDrop to share with everyone, or turn off the feature entirely. Organizations can restrict the use of AirDrop for devices or apps being managed by using a mobile device management (MDM) solution.

Ex-2014, 2 (Ex-2055, 89-91).

As shown below, Apple AirDrop devices have Wi-Fi capabilities.

iPhone 14 Pro	iPhone 15 Pro
Cellular and Wireless	
GSM/EDGE	GSM/EDGE
UMTS/HSPA+	UMTS/HSPA+
DC-HSDPA	DC-HSDPA
5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]	5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]
Gigabit LTE[6]	Gigabit LTE[6]
Wi-Fi 6	Wi-Fi 6E[10]
Bluetooth 5.3	Bluetooth 5.3
Ultra Wideband chip[11]	Second-generation Ultra Wideband chip[11]

Ex-2013, 9 (Ex-2055, 92-105).

Apple AirDrop devices have a 6.1 inch OLED display with haptic touch capabilities. *See, e.g.*, Ex-2013, 4-5 (Ex-2055, 92-105).

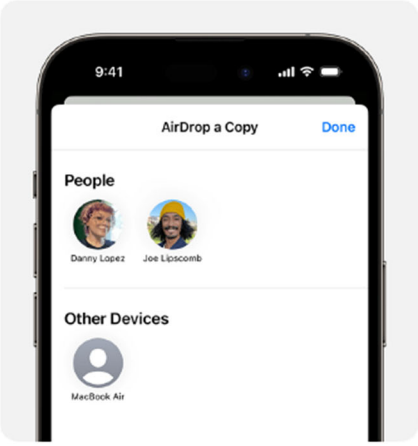
	How to use AirDrop on your iPhone or iPad Use AirDrop to share and receive photos, documents, and more with other Apple devices that are nearby. • Before you begin • How to use AirDrop • How to accept AirDrop • How to adjust AirDrop settings Ex-2015, 1 (Ex-2055, 84-88).
1[a] processing, by the WTRU, a touchscreen input to select a media element;	Apple AirDrop products comprise a WTRU that processes a touchscreen input to select a media element. Each Apple AirDrop product comprises a processor that is capable of processing, by the WTRU from a touch display, an input to select media in an application. For example, as shown below, the iPhone 15 Pro contains an A17 Pro chip. The iPhone 14 Pro contains an A16 Bionic Chip.

	iPhone 14 Pro A16 A16 Bionic chip 6-core CPU 5-core GPU 16-core Neural Engine Pro camera system 48MP Main | Ultra Wide | Telephoto Super-high-resolution photos (48MP) Portrait mode with Focus and Depth Control iPhone 15 Pro A17 PRO A17 Pro chip 6-core CPU 6-core GPU 16-core Neural Engine Pro camera system 48MP Main | Ultra Wide | Telephoto Super-high-resolution photos (24MP and 48MP) Next-generation portraits with Focus and Depth Control Ex-2013, 2 (Ex-2055, 92-105). Further, the Apple Domestic Industry Products have a 6.1 inch OLED display with haptic touch that is capable of receiving touchscreen input. *See, e.g.*, Ex-2013, 4-5 (Ex-2055, 92-105). As another example, when using AirDrop, users must "[o]pen an app, then tap Share or the Share button," such as when "shar[ing] a photo from the Photos app." Ex-2015, 1 (Ex-2055, 84-88). "If you share a photo from the Photos app, you can swipe left or right and select multiple photos." *Id*.

	How to use AirDrop 1. Open an app, then tap Share or the Share button. If you share a photo from the Photos app, you can swipe left or right and select multiple photos. 2. Tap the AirDrop button. Ex-2015, 1 (Ex-2055, 84-88).
1[b] detecting, by the WTRU using Bluetooth, a plurality of WTRUs in proximity to the WTRU;	Apple AirDrop products comprise WTRUs that detect using Bluetooth a plurality of WTRUs in proximity to the WTRU Each Apple AirDrop product has Bluetooth 5.3 capability that detects devices in their proximity.

	iPhone 14 Pro	**iPhone 15 Pro**
	Cellular and Wireless	
	GSM/EDGE	GSM/EDGE
	UMTS/HSPA+	UMTS/HSPA+
	DC-HSDPA	DC-HSDPA
	5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]	5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]
	Gigabit LTE[6]	Gigabit LTE[6]
	Wi-Fi 6	Wi-Fi 6E[10]
	Bluetooth 5.3	Bluetooth 5.3
	Ultra Wideband chip[11]	Second-generation Ultra Wideband chip[11]
	Ex-2013, 9 (Ex-2055, 92-105).	
	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.").	

	AirDrop operation AirDrop uses iCloud services to help users authenticate. When a user signs in to iCloud, a 2048-bit RSA identity is stored on the device, and when the user turns on AirDrop, an AirDrop short identity hash is created based on the email addresses and phone numbers associated with the user's Apple ID. 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. Ex-2014, 2 (Ex-2055, 89-91). *See also* documentation instructing users to "[c]heck that you and the person you're sending to have Wi-Fi and Bluetooth turned on." **How to use AirDrop on your iPhone or iPad** Use AirDrop to share and receive photos, documents, and more with other Apple devices that are nearby. **Before you begin** • Make sure that the person you're sending to is nearby and within Bluetooth and Wi-Fi range. • Check that you and the person you're sending to have Wi-Fi and Bluetooth turned on. If either of you have Personal Hotspot on, turn it off. • Check if the person you're sending to has their AirDrop set to receive from Contacts Only. If they do, and you're in their Contacts, they need to have your Apple ID's email address or mobile number in your contact card for AirDrop to work. • If you're not in their Contacts, have them set their AirDrop receiving setting to Everyone in order to receive the file. You can put your AirDrop receiving setting to Contacts Only or Receiving Off at any time to control who can see your device and send you content in AirDrop. Ex-2016, 2 (How to use your iPhone or iPad) (annotated).
1[c] processing, by the	Apple AirDrop products comprise a WTRU that processes another touchscreen input to select a WTRU of the plurality of WTRUs.

WTRU, another touchscreen input to select a WTRU of the plurality of WTRUs;	*See* documentation instructing users to "[t]ap the AirDrop user that you want to share with." 3. Tap the AirDrop user[1] that you want to share with. Or you can use AirDrop between your own Apple devices.  If you see a red numbered badge on the AirDrop button, there are multiple devices nearby that you can share with. Tap the AirDrop button, then tap the user that you want to share with. Learn what to do if you don't see the AirDrop user or your other device. Ex-2015, 2 (Ex-2055, 84-88).
1[d] sending, by the WTRU, a message to transfer the selected media element to the selected WTRU;	Apple AirDrop products comprise a WTRU that sends a message to transfer the selected media element to the selected WTRU. *See* documentation describing that "[w]hen someone shares something with you using AirDrop, you see an alert," which the user can "tap [to] Accept or Decline."

	How to accept AirDrop When someone shares something with you using AirDrop, you see an alert. You can tap Accept or Decline. Ex-2015, 2 (Ex-2055, 84-88).
1[e] receiving, by the WTRU, an acceptance to transfer the selected media element to the selected WTRU; and	Apple AirDrop products comprise a WTRU that receives an acceptance to transfer the selected media element to the selected WTRU. *See* documentation describing that "[w]hen someone shares something with you using AirDrop, you see an alert," which the user can "tap [to] Accept or Decline." Then, "if you tap Accept, the AirDrop will come through within the same app it was sent from."

	How to accept AirDrop When someone shares something with you using AirDrop, you see an alert. You can tap Accept or Decline. For most apps, if you tap Accept, the AirDrop will come through within the same app it was sent from. For example, photos appear in the Photos app and websites open in Safari. App links open in the App Store so you can download or purchase the app. Ex-2015, 2 (Ex-2055, 84-88).
1[f] transferring, by the WTRU using a WiFi communication, the selected media element to the selected WTRU.	Apple AirDrop products comprise a WTRU that transfers using a WiFi communication the selected media element to the selected WTRU, either literally or under the doctrine of equivalents. *See* documentation describing that AirDrop uses "Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices." AirDrop security Apple devices that support AirDrop use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices and iPad devices running iOS 7 or later and Mac computers running OS X 10.11 or later. The Wi-Fi radio is used to communicate directly between devices without using any internet connection or wireless access point (AP). This connection is encrypted with TLS. Ex-2014, 2 (Ex-2055, 89-91) (Apple Platform Security) (annotated).

	See documentation describing that the Apple Domestic Industry Products have at least Wi-Fi 6 capability. iPhone 14 Pro / iPhone 15 Pro / iPhone 15 **Cellular and Wireless** GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6 Bluetooth 5.3 Ultra Wideband chip[11] GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6E[10] Bluetooth 5.3 Second-generation Ultra Wideband chip[11] GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6 Bluetooth 5.3 Second-generation Ultra Wideband chip[11] Ex-2013, 9 (Ex-2055, 92-105).

Claim Element	Nexus Between the Claim Element and Apple AirDrop Products
23[pre] A wireless transmit/receive unit (WTRU) comprising:	As noted above, Apple AirDrop products are wireless transmit/receive units.

	iPhone 14 Pro iPhone 15 Pro Ex-2013, 1 (Ex-2055, 92-105). For example, Apple devices with iOS 7 or later are touchscreen, Wi-Fi-enabled WTRUs that are pre-installed with AirDrop. "AirDrop is an entirely new way to quickly and easily share content with people nearby." Ex-2014, 2 (Ex-2055, 89-91). As shown below, the Apple Domestic Industry Products have Wi-Fi capabilities.

iPhone 14 Pro	iPhone 15 Pro
Cellular and Wireless	
GSM/EDGE	GSM/EDGE
UMTS/HSPA+	UMTS/HSPA+
DC-HSDPA	DC-HSDPA
5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]	5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]
Gigabit LTE[6]	Gigabit LTE[6]
Wi-Fi 6	Wi-Fi 6E[10]
Bluetooth 5.3	Bluetooth 5.3
Ultra Wideband chip[11]	Second-generation Ultra Wideband chip[11]

Ex-2013, 9 (Ex-2055, 92-105).

More specifically, and as shown below, "AirDrop-capable iOS devices and iPad devices running iOS 7 or later" are able to "use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices."

AirDrop security

Apple devices that support AirDrop use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices and iPad devices running iOS 7 or later and Mac computers running OS X 10.11 or later. The Wi-Fi radio is used to communicate directly between devices without using any internet connection or wireless access point (AP). This connection is encrypted with TLS.

AirDrop is set to share with Contacts Only by default. Users can also choose to use AirDrop to share with everyone, or turn off the feature entirely. Organizations can restrict the use of AirDrop for devices or apps being managed by using a mobile device management (MDM) solution.

Ex-2014, 2 (Ex-2055, 89-91).

	How to use AirDrop on your iPhone or iPad Use AirDrop to share and receive photos, documents, and more with other Apple devices that are nearby. • Before you begin • How to use AirDrop • How to accept AirDrop • How to adjust AirDrop settings Ex-2015, 1 (Ex-2055, 84-88).
23[a] a processor configured to process a touchscreen input to select a media element;	Apple AirDrop products comprise a processor configured to process a touchscreen input to select a media element. Each Apple AirDrop product comprises a processor configured to process a touchscreen input to select a media element. The iPhone 14 Pro and iPhone 15 Pro contain an A16 Bionic chip and A17 Bionic chip, respectively.

	iPhone 14 Pro A16 A16 Bionic chip 6-core CPU 5-core GPU 16-core Neural Engine Pro camera system 48MP Main | Ultra Wide | Telephoto Super-high-resolution photos (48MP) Portrait mode with Focus and Depth Control iPhone 15 Pro A17 PRO A17 Pro chip 6-core CPU 6-core GPU 16-core Neural Engine Pro camera system 48MP Main | Ultra Wide | Telephoto Super-high-resolution photos (24MP and 48MP) Next-generation portraits with Focus and Depth Control Ex-2013, 2 (Ex-2055, 92-105). Further, the Apple AirDrop products have a 6.1 inch OLED display with haptic touch capabilities. See, e.g., Ex-2013, 4-5 (Ex-2055, 92-105). As another example, when using AirDrop, users must "[o]pen an app, then tap Share or the Share button," such as when "shar[ing] a photo from the Photos app." Ex-2015, 1 (Ex-2055, 84-88). "If you share a photo from the Photos app, you can swipe left or right and select multiple photos." *Id*.

	How to use AirDrop 1. Open an app, then tap Share or the Share button. If you share a photo from the Photos app, you can swipe left or right and select multiple photos. 2. Tap the AirDrop button. Ex-2015, 1 (Ex-2055, 84-88).
23[b] circuitry configured to detect, using Bluetooth, a plurality of WTRUs in proximity to the WTRU;	Apple AirDrop products comprise circuitry configured to detect, using Bluetooth, a plurality of WTRUs in proximity to the WTRU. The Apple AirDrop products have Bluetooth 5.3 capability that detects devices in their proximity. Ex-2013, 9 (Ex-2055, 92-105).

iPhone 14 Pro	iPhone 15 Pro
Cellular and Wireless	
GSM/EDGE	GSM/EDGE
UMTS/HSPA+	UMTS/HSPA+
DC-HSDPA	DC-HSDPA
5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]	5G (sub-6 GHz and mmWave) with 4x4 MIMO[6]
Gigabit LTE[6]	Gigabit LTE[6]
Wi-Fi 6	Wi-Fi 6E[10]
Bluetooth 5.3	Bluetooth 5.3
Ultra Wideband chip[11]	Second-generation Ultra Wideband chip[11]

Ex-2013, 9 (Ex-2055, 92-105).

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.").

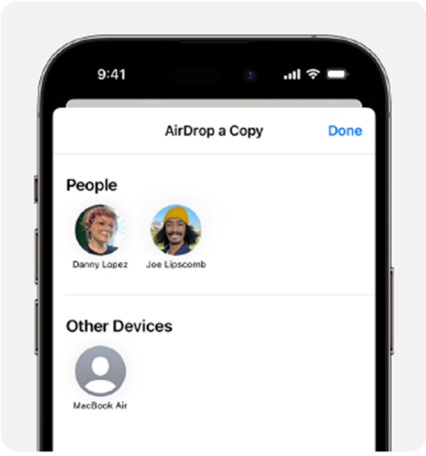
AirDrop operation

AirDrop uses iCloud services to help users authenticate. When a user signs in to iCloud, a 2048-bit RSA identity is stored on the device, and when the user turns on AirDrop, an AirDrop short identity hash is created based on the email addresses and phone numbers associated with the user's Apple ID.

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.

Ex-2014, 2 (Ex-2055, 89-91).

	See also documentation instructing users to "[c]heck that you and the person you're sending to have Wi-Fi and Bluetooth turned on." **How to use AirDrop on your iPhone or iPad** Use AirDrop to share and receive photos, documents, and more with other Apple devices that are nearby. **Before you begin** • Make sure that the person you're sending to is nearby and within Bluetooth and Wi-Fi range. • Check that you and the person you're sending to have Wi-Fi and Bluetooth turned on. If either of you have Personal Hotspot on, turn it off. • Check if the person you're sending to has their AirDrop set to receive from Contacts Only. If they do, and you're in their Contacts, they need to have your Apple ID's email address or mobile number in your contact card for AirDrop to work. • If you're not in their Contacts, have them set their AirDrop receiving setting to Everyone in order to receive the file. You can put your AirDrop receiving setting to Contacts Only or Receiving Off at any time to control who can see your device and send you content in AirDrop. Ex-2016, 2 (How to use your iPhone or iPad) (annotated).
23[c] the processor is further configured to process another touchscreen input to select a WTRU of the plurality of WTRUs;	Apple AirDrop products comprise a processor further configured to process another touchscreen input to select a WTRU of the plurality of WTRUs. *See* documentation instructing users to "[t]ap the AirDrop user that you want to share with" using a processor further configured to process another touchscreen input to select a WTRU of the plurality of WTRUs.

	3. Tap the AirDrop user[1] that you want to share with. Or you can use AirDrop between your own Apple devices.  If you see a red numbered badge on the AirDrop button, there are multiple devices nearby that you can share with. Tap the AirDrop button, then tap the user that you want to share with. Learn what to do if you don't see the AirDrop user or your other device. Ex-2015, 2 (Ex-2055, 84-88).
23[d] circuitry configured to send a message to transfer the selected media element to the selected WTRU;	Apple AirDrop products comprise circuitry configured to send a message to transfer the selected media element to the selected WTRU. For example, as shown below, "[w]hen someone shares something with you using AirDrop, you see an alert" showing the proposed transfer, which the user can "tap [to] Accept or Decline."

	How to accept AirDrop When someone shares something with you using AirDrop, you see an alert. You can tap Accept or Decline. Ex-2015, 2 (Ex-2055, 84-88).
23[e] circuitry configured to receive an acceptance to transfer the selected media element to the selected WTRU; and	Apple AirDrop products comprise circuitry configured to receive an acceptance to transfer the selected media element to the selected WTRU. For example, as shown below, "[w]hen someone shares something with you using AirDrop, you see an alert," which the user can "tap [to] Accept or Decline." Then, "if you tap Accept, the AirDrop will come through within the same app it was sent from."

	How to accept AirDrop When someone shares something with you using AirDrop, you see an alert. You can tap Accept or Decline. For most apps, if you tap Accept, the AirDrop will come through within the same app it was sent from. For example, photos appear in the Photos app and websites open in Safari. App links open in the App Store so you can download or purchase the app. Ex-2015, 2 (Ex-2055, 84-88).
23[f] circuitry configured to transfer, using a WiFi communication, the selected media element to the selected WTRU.	Apple AirDrop products comprise circuitry configured to transfer, using a WiFi communication, the selected media element to the selected WTRU. For example, as shown below, AirDrop uses "Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices." AirDrop security Apple devices that support AirDrop use Bluetooth Low Energy (BLE) and Apple-created peer-to-peer Wi-Fi technology to send files and information to nearby devices, including AirDrop-capable iOS devices and iPad devices running iOS 7 or later and Mac computers running OS X 10.11 or later. The Wi-Fi radio is used to communicate directly between devices without using any internet connection or wireless access point (AP). This connection is encrypted with TLS. Ex-2014, 2 (Ex-2055, 89-91) (Apple Platform Security) (annotated).

	See documentation describing that the Apple Domestic Industry Products have at least Wi-Fi 6 capability. iPhone 14 Pro / iPhone 15 Pro / iPhone 15 **Cellular and Wireless** GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6 Bluetooth 5.3 Ultra Wideband chip[11] GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6E[10] Bluetooth 5.3 Second-generation Ultra Wideband chip[11] GSM/EDGE UMTS/HSPA+ DC-HSDPA 5G (sub-6 GHz and mmWave) with 4x4 MIMO[6] Gigabit LTE[6] Wi-Fi 6 Bluetooth 5.3 Second-generation Ultra Wideband chip[11] Ex-2013, 9 (Ex-2055, 92-105).

c. There is Presumptive Nexus Between the Challenged Claims, Apple AirDrop, and the Evidence of Secondary Considerations Related to Apple AirDrop

As shown above, AirDrop embodies each and every element of at least Claims 1 and 23 of the '933 Patent. Therefore, whenever the objective evidence discussed later praises AirDrop, the foregoing tables demonstrate that AirDrop "*is* the invention disclosed and claimed," making a presumption of nexus proper. *See Fox Factory*, 944 F.3d at 1373. The mappings evidence the embodiment of the claimed inventions in AirDrop and show that AirDrop is coextensive with Claims 1 and 23, which entitles Patent Owner to a presumption of nexus when AirDrop is praised. *See id*. Moreover, even if the Board finds AirDrop to have an imperfect correspondence

with the claimed invention, perfection is not required and AirDrop is "essentially the claimed invention." *Id*. at 1374.

Additionally, Petitioner states the Patent Owner does not show that AirDrop's success and industry praise are "the 'direct result of the unique characteristics of the claimed invention.'" Paper 10, 4. However, a court uses this inquiry only after the presumption of nexus has not been met—which Petitioner has failed to rebut. Specifically,

> [a] finding that a presumption of nexus is inappropriate does not end the inquiry into secondary considerations. To the contrary, the patent owner is still afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the "direct result of the unique characteristics of the claimed invention."

Fox Factory, 944 F.3d at 1373-74. Indeed a presumption of nexus is only lost when "the patented invention is only a component of a commercially successful machine or process." *Id*. at 1377 (cleaned up). Here, as shown in detail in the tables provided above, the patented invention is coextensive with AirDrop such that AirDrop is "essentially the claimed invention." *Id*. at 1374. Thus, when AirDrop is praised (as shown below), that praise is indeed tied to the claimed invention. Courts have held that "[t]his showing—that the specific products are embodiments of the claimed invention and that the proffered objective evidence relates to these products—is

sufficient to establish a presumption of nexus for the objective considerations at issue ….” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1324-30 (Fed. Cir. 2016).

Nevertheless, to the extent the Board disagrees and declines to find presumptive nexus, the evidence of secondary considerations provided below is the “direct result of the unique characteristics of the claimed invention.” *Fox Factory*, 944 F.3d at 1373-74. Here, the praise cited in the references discussed in Sections III.A.2 through III.A.5, *infra*, relates to praise for Apple AirDrop which, as shown in the tables above, embodies the invention recited in Challenged Claims 1 and 23. Microsoft complains that InterDigital has failed to “show that any of AirDrop’s alleged commercial success and industry praise are “the direct results of the unique characteristics of the claimed invention.” Paper 10, 4 (internal citations and emphasis omitted). But that is incorrect. The industry praise discussed below, which provides evidence of the long-felt need, failure of others, and copying of AirDrop by competitors, shows that the Challenged Claims are novel.

> Evidence that the industry praised a claimed invention or a product that embodies the patent claims weighs against an assertion that that the same claimed invention would have been obvious.

Apple Inc. v. Samsung Elecs. Co., 839 F.3d 1034, 1053 (Fed. Cir. 2016). Therefore Petitioners argument that a presumption of nexus is inappropriate because AirDrop is merely a portion of an Apple product is misplaced. The secondary considerations

are focused specifically on the commercial success of AirDrop, and then as a consequence, Apple's success. Further, if some of the secondary considerations are found to not be attributed to unclaimed features of the patent, nexus should still be presumed since any unclaimed features are insignificant. *See Fox Factory*, 944 F.3d at 1374.

As explained below, praise is given to AirDrop because of its novel ability to share files—the unique characteristics of the claimed invention. Therefore, even if a nexus is not presumed, a nexus still exists.

d. Apple/InterDigital Relationship

Claims 1 and 23 of the '933 Patent—the only independent claims included in the patent—and the manner in which the Apple AirDrop products embody each and every claim element, definitively demonstrate the nexus between the claimed invention, the merits of the claimed invention, and the following discussion of other secondary considerations of non-obviousness.

Apple and InterDigital entered into an agreement in 2022.[2] Evidence of the

[2] Patent Owner sought to introduce a redacted version of the Apple/InterDigital Agreement subject to a Protective Order in this proceeding. However, Patent Owner was unable to reach agreement with Apple and Microsoft concerning the terms of that Protective Order because Microsoft demanded inclusion of a provision that

relationship between Apple and InterDigital can be found in public SEC filings. Ex-2017, 2 (InterDigital 8-K, October 3, 2022) ("On September 30, 2022, InterDigital, Inc. (the "Company") renewed a patent license agreement with Apple, Inc. The Company expects to recognize approximately $134 million in revenue each year over the seven-year term of the license, which commenced on October 1, 2022."); Ex-2018, 8 (InterDigital 10-K, February 15, 2023) ("During third quarter 2022, we [Patent Owner] renewed a multi-year, royalty-bearing, worldwide and non-exclusive patent license agreement with Apple (the "Apple PLA"). The term of the Apple PLA extends through September 30, 2029. Ex-2018, 8 ("Apple plans to spend nearly $1 billion over the next seven years for a license to InterDigital's patents.").

2. Commercial Success and Industry Praise

Evidence of commercial success and industry praise can be presented as secondary evidence of non-obviousness. *Graham*, 383 U.S. at 17. Here, Apple's AirDrop system and products have been a commercial success and demonstrate that the patented features recited in the Challenged Claims are not obvious.

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could enabled in-house counsel at Microsoft to access that Agreement. Apple rejected that provision. Patent Owner will continue to work with both Apple and Microsoft on this issue to see if agreement can be reached such that a redacted version of the Agreement can be provided to the Board.

Apple does not publicly release financial figures directly attributable to AirDrop because it is a functionality embedded within Apple devices like the iPhone, iPad, and Mac desktop and laptop computers. However, the commercial success of AirDrop is evident from industry commentary.

Apple first unveiled AirDrop for mobile devices to the public in 2013, and it was met with widespread praise. *Graham*, 383 U.S. at 17-18 ("Against this background, the obviousness or nonobviousness of the subject matter is determined. such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.")) *See* Ex-2001 (Edwards Decl.) at ¶114-116. Headlines read, "How iOS 7's AirDrop Could Transform the Way We Share," and told of how "AirDrop possesses the potential to spur new forms of sharing digital content and thus, potential new applications and even new businesses could spring from AirDrop." Ex-2023, 1, 5 (Ex-2055, 68-73). Reviewers called AirDrop, "a fantastic technological implementation of frictionless file sharing," (Ex-2024, 4 (Ex-2055, 62-67)) and a "great way to share files between systems, even big ones like video files or Photoshop files," (Ex-2025, 1 (Ex-2055, 57-61)) even going as far as saying, "[w]e've never encountered any system that makes it so easy to pass a file from one device to another." Ex-2024, 4 (Ex-2055, 62-67).

AirDrop met an unresolved need in the industry for quick and simple media sharing between devices. *Graham*, 383 U.S. at 17. It differentiated itself from anything else in the industry by utilizing Bluetooth detection to create a peer-to-peer system for Wi-Fi transmission of media between devices. One of the many reasons that AirDrop grew to become a "staple iOS feature that iPhone users love," (Ex-2026, 1 (Ex-2055, 235-252)) and a feature coveted by non-iPhone users is the fact that "[u]nlike similar Android and Windows Phone solutions that require back-to-back NFC contact of your phones, AirDrop works entirely wirelessly over Bluetooth." Ex-2027, 1 (Ex-2055, 53-56). Apple recognized that the current state of data transfer between devices was stunted both by a lack of speed and a lack of convenience—most notably, data transfer in the industry preceding AirDrop almost entirely depended upon a service called Bump, "which let users tap phones together to share contacts and other files." Ex-2028, 1 (Ex-2055, 42-52). However, it was inefficient and inconsistent, or as the publication Android Community put it, "[t]o be honest, nobody taps two smartphones together anymore." Ex-2029, 1 (Ex-2055, 38-41). So Apple innovated and developed its own solution to the problem, Apple AirDrop, which has now been pursued as an alternative to "bump" technology, a lead which has been followed by competitors in the wireless industry.

3. Industry Competitors Sought to Develop AirDrop Alternatives of Their Own, Reflecting the Need to Copy AirDrop's Vast Commercial Success to Satisfy Their Customers' Long-Felt but Unresolved Needs

Where Apple led, the industry has followed, and others in the industry have now announced the incorporation of the claimed technology in their products because Apple's innovation worked flawlessly. Ex-2030, 1 (Ex-2055, 34-37) ("[AirDrop] has been robust and reliable, almost a second nature for sharing content among Apple device users."). *See* Ex-2001 (Edwards Decl.) at ¶117-130. "Evidence of a long-felt but unresolved need can weigh in favor of the non-obviousness of an invention because it is reasonable to infer the need would not have persisted had the solution been obvious." *Apple*, 839 F.3d at 1056.

a. Google Pursues Bump as an AirDrop Alternative

Shortly after Apple released AirDrop, Google decided to purchase Bump, another entity working at developing contactless data transfer, in September of 2013. Ex-2031, 1 (Ex-2055, 30-33); *See* Ex-2001 (Edwards Decl.) at ¶123. Many speculated that Google's "decision to buy Bump seems to have been partly driven by the impending release of Apple's iOS 7 . . . [which] introduces a technology called AirDrop." Ex-2032, 1 (Ex-2055, 27-29). However, even before Google's purchase of Bump, Bump began to feel the pressure of their system compared to AirDrop—"Bump must feel bumped by AirDrop." Ex-2033, 2 (Ex-2055, 21-26).

Comparing the two, most analysts determined that "AirDrop on iOS 7 could make Bump unnecessary on its own platform." Ex-2032, 1 (Ex-2055, 27-29). That's exactly what happened as "[Bump] failed to monetize successfully as other easy, mobile-friendly ways to share information were developed, most notably Apple's AirDrop for iOS 7." Ex-2028, 1 (Ex-2055, 42-52). By December 31, 2013, just a few months after Google's purchase of Bump and Apple's release of AirDrop, Google announced it was shutting down Bump. *Id*. This failure to capitalize on the long-felt need symbolized the long road ahead for companies like Google, Samsung, and others as they attempted to develop the product Android users begged for: seamless file transfer akin to AirDrop.

b. Google Tries Again with "Files Go"

While consumers hailed "AirDrop [] as one of the biggest advantages of sticking within the Apple ecosystem," (Ex-2034, 1 (Ex-2055, 13-20)) and it became "second nature for sharing content among Apple device users," (Ex-2030, 1 (Ex-2055, 34-37)) Apple competitors worked tirelessly to replicate its widespread success. In late 2017, it was reported that Google began "working on a new app called Files Go that'll work as a way to manage, clean up, and share files." Ex-2035, 1 (Ex-2055, 8-12) ("It's that last [feature] that seems the most interesting here: Files Go seems to have a feature that works a lot like Apple's AirDrop, letting you easily send files to nearby Android phones over Bluetooth."). *See* Ex-2001 (Edwards Decl.)

at ¶124. However, according to industry reviews, Google's "file-transfer feature doesn't appear to work quite as smoothly as AirDrop," leaving Android Beam's tapping mechanism as the "best way to send a file to a nearby phone." *Id*. ("Both people need to have the Files Go app open, whereas AirDrop lets you send files from any app to any nearby contact, even if they don't have the same app. Still, it'd be a nice addition to Android if Google began shipping this as a stock app. Right now, the best way to send a file to a nearby phone is by using Android Beam, which requires tapping the two phones together to make an NFC connection. It works, but it's an odd interaction that a lot of people don't seem to know about."). Android Beam, however, could not meet the industry need created by AirDrop and would eventually be deprecated in December 2018. Ex-2029, 1 (Ex-2055, 38-41).

c. Microsoft Develops "Nearby Sharing"

While Google fell short, Petitioner Microsoft also tried its hand at creating an AirDrop clone in late 2017, called "Near Share," where "[l]ike AirDrop, Near Share [] let Windows 10 PCs share documents or photos to PCs nearby via Bluetooth." Ex-2036, 1 (Ex-2055, 4-7);[3] *See* Ex-2001 (Edwards Decl.) at ¶128. For example, Microsoft Nearby Sharing devices, operating on the Windows 10 or Windows 11

[3] "Near Share," as referenced in the article, was branded "Nearby Sharing" when launched by Microsoft in 2018. Ex-2049 (Ex-2055, 189-191).

operating systems, "lets you share documents, photos, links to websites, and more ***with nearby devices by using Bluetooth or Wi-Fi***." Ex-2049, 1 (Ex-2055, 189-191) (emphasis added). Nearby devices can be detected using Bluetooth.

Windows 11 **Windows 10**

Nearby sharing in Windows lets you share documents, photos, links to websites, and more with nearby devices by using Bluetooth or Wi-Fi. You can share files between PCs that are running Windows 10 or Windows 11.

Id. When Nearby Sharing is turned on, Bluetooth is automatically turned on, as shown below, enabling a user to identify a target with which they want to share information.

Notes:

- To use nearby sharing, you don't need to pair both PCs over Bluetooth first. Both PCs just need to have nearby sharing turned on. (When nearby sharing is turned on, Bluetooth is turned on.)
- In general, it takes more time for files to be transferred over Bluetooth compared to Wi-Fi. When sharing files over Bluetooth using nearby sharing, make sure large amounts of data aren't already being sent over Bluetooth, such as streaming audio over a Bluetooth speaker.

Ex-2050, 2 (Ex-2055, 186-188). Moreover, Nearby Sharing ***enables recipients to "choose whether to accept an item a user want to share.***" Ex-2051, 20 n.4 (Ex-2055, 166-185) (emphasis added). Once a recipient accepts, then the information can be shared via Wi-Fi. Ex-2050, 1 (Ex-2055, 186-188) ("If the PC you're sharing from is running the latest version of Windows 11, ***you can share over Wi-Fi*** if the

Windows 10/11 PC you're sharing to is connected to the same private Wi-Fi network.") (emphasis added).

It's no surprise, then, that reviewers of Nearby Sharing considered it "a Windows 10 take on Apple's AirDrop." Ex-2053, 1 (Ex-2055, 153-159). Nearby Sharing was officially released in a Windows 10 update in April of 2018, and its users, many of which had "long been [] fan[s] of Apple's AirDrop feature," met its implementation with excitement because "[n]ow Windows users can enjoy the same convenience." Ex-2054, 1-2 (Ex-2055, 145-152; 253-260). Utilizing a similar functional design to AirDrop—that is, "Bluetooth and peer-to-peer Wi-Fi—," Nearby Sharing demonstrated that AirDrop remained the preeminent design for quick and easy file sharing between devices. *Id*. Still, AirDrop's success far surpassed that of Nearby Sharing because AirDrop allowed sharing between both handheld and non-mobile devices, including iPhones, Macs, and iPads, while Nearby Sharing was limited to sharing between PCs only. *Id.* The industry's quest to enable sharing between different types of devices, like Apple accomplished in 2013, would spur on a race to meet that need in the ensuing years.

d. Google Turns to "Fast Share" and "Nearby Share"

In 2019, Google, following both Windows Nearby Sharing's moderate success with its AirDrop-like features *and* following its own failure in Android Beam, began work on yet another file sharing service called Fast Share, "which looks

like . . . a competitor to Apple's AirDrop." Ex-2037, 1 (Ex-2055, 231-234). However, unlike its previous failures to innovate in the space, Google decided it was best to simply mimic the AirDrop technology that "just works within Apple's ecosystem." Ex-2038, 1 (Ex-2055, 227-230) ("The absence of a true Airdrop competitor on Android prompted Xiaomi, Oppo, and Vivo to come together to announce their own cross-device file transfer solution. On the other hand, Google is also working on its own solution in the form of Fast Share, which was originally spotted back in June 2019."). Accordingly, Fast Share functioned almost identically to AirDrop: "Rather than NFC, the service uses Bluetooth to initiate a handshake and then subsequently transfers files over a direct Wi-Fi connection." *Id*. ("This will allow for larger files to be transferred much more quickly than Android Beam. Fast Share even allows you to give your device 'Preferred Visibility' to nearby devices, which lets those devices 'always see your device when you're nearby, even if you're not using Fast Share.'").

Using Apple's proven model of Bluetooth device detection and Wi-Fi data transfer, Google began to have some success with Fast Share, which it renamed "Nearby Share." Ex-2052, 1 (Ex-2055, 160-165). "After years of Apple standing alone," (Ex-2034, 1 (Ex-2055, 13-20)) the industry recognized that "Android is getting a feature that's been beloved among iPhone users for years." Ex-2039, 1 (Ex-2055, 223-226) ("Google, which makes the Android mobile operating system, on

Tuesday said it's launching a tool called Nearby Share that lets people quickly send files to the devices of people around them. The feature is similar to Apple's AirDrop, which debuted for Mac computers in 2011, then came to iPhones two years later. Google said the feature spent 'years in development[.]'"). The result was that "Android users everywhere rejoiced [because] [t]hey finally had a tool to rival Apple's Airdrop[.]" Ex-2040, 1 (Ex-2055, 219-222) ("When Google launched Nearby Share in 2020, Android users everywhere rejoiced. They finally had a tool to rival Apple's AirDrop, a simple way to move files between devices without having to attach them to an email or upload them to Google Drive just to download them again on a new device.").

e. Samsung Sought to Satisfy the Same Long-Felt Need by Following the Pattern of Apple's Success

Samsung, arguably Apple's fiercest competitor, seeing that Apple's seamless software experience of AirDrop had resulted in massive commercial success being pursued by competitors throughout the industry, took heed of the fact that "[t]he area of real competition now is with software, and the software experience can now make or break purchase decisions," and it began "trying to match Apple's features." Ex-2041, 1 (Ex-2055, 215-218); *See* Ex-2001 (Edwards Decl.) at ¶129. Following suit with the rest of the industry, Samsung began developing its own "AirDrop-like file sharing service for Galaxy smartphones," called "Quick Share" in 2020. *Id*. Quick

Share "fill[ed] a gap [for easily sharing files between Samsung devices] in Samsung's lineup that the iPhone has offered for years." Ex-2042, 1 (Ex-2055, 210-214) ("Samsung's new Galaxy S20 lineup comes with two new features that may sound familiar to iPhone owners: video chatting that's built directly into the phone app, and the ability to quickly share files wirelessly. That's because the phones . . . will also support a new feature called Quick Share for easily sharing files between Samsung devices. Both additions fill a gap in Samsung's lineup that the iPhone has offered for years."). The announcement of Quick Share came as "good news" for "Android user[s] who ha[d] long envied Apple's AirDrop." Ex-2043, 1 (Ex-2055, 206-209). Like AirDrop and Nearby Share, Quick Share functioned similarly, allowing users to "share everything with your friends instantly." Ex-2044, 2 (Ex-2055, 202-205). The Bluetooth detection and Wi-Fi data transfer paradigm of Apple AirDrop had now been repeated multiple times, by multiple competitors throughout the telecommunications industry.

f. Google and Samsung Efforts to Achieve the Success of AirDrop have Continued—*Even after Microsoft Filed this Petition*

Google and Samsung partnered to bridge the gap to AirDrop, and "Google's new AirDrop clone [Nearby Share]," Window's AirDrop clone Nearby Sharing, and Samsung's AirDrop clone Quick Share continued to be refined to match the simple fact that "[i]t's easy to send files to and from Apple devices, thanks to AirDrop." Ex-

2045, 1 (Ex-2055, 196-201); *see also* Ex-2001 (Edwards Decl.) at ¶126.

On January 9, 2024, ***three weeks after Microsoft filed this Petition*** and in another attempt to match the ease of transferring media between Apple devices with AirDrop, "Google announced … at CES that it has collaborated with Samsung to combine their sharing solutions into a singular cross-Android solution under the Quick Share name." Ex-2046, 1. "Apple's AirDrop feature has been popular for a long time due to its ease of sharing contacts, images, files, etc," and while this generated massive commercial success and praise for Apple, it also created an unresolved need in the rest of the industry to "bring a similar feature." Ex-2047, 1 (Ex-2055, 192-195).

("Apple's AirDrop feature has been popular for a long time due to its ease of sharing contacts, images, files, etc. Android smartphone companies including Google and Samsung have been trying to bring a similar feature. And now, Google has rolled out a file-sharing feature called Quick Share which makes transferring files easy from one Android device to another. The Quick Share feature was created with the efforts of Samsung and Google.").

4. Apple's AirDrop Product, Built on Patent Owner's Solution of Bluetooth Detection and Wi-Fi Data Transfer, Served as the Paradigm for the Industry

After much trial and error over the past ten years, companies like Google, Microsoft, and Samsung found that the best way for them to fill this void for their

customers was to mimic the functionality that has proven to be such a huge success for AirDrop. *See also* Ex-2001 (Edwards Decl.) at ¶131-132.

All of these efforts demonstrate the strength of the secondary considerations of non-obviousness associated with Apple AirDrop, a detection and data transfer system built upon the inventions recited in the Challenged Claims of the ’933 Patent. Nexus has been demonstrated above, and for these reasons the Challenged Claims are patentable.

5. Additional Evidence of Long-Felt but Unresolved Need

Further evidence of non-obviousness is long felt but unresolved need. *Graham*, 383 U.S. at 17. Petitioner cites prior art that allegedly predates the priority of the Challenged Claims of the ’933 Patent. Nevertheless, Petitioner does not explain why ***no one in the wireless communication industry***, including Apple, sought to implement the patented inventions in WTRUs prior to Patent Owner. Thus, despite Petitioner’s arguments regarding the alleged prior art and the alleged knowledge of a POSITA, ***no one satisfied the long felt but unresolved need*** for the patented inventions claimed in the ’933 Patent until Apple, an industry leader, announced the inclusion of AirDrop in iOS 7. In view of this reality, Petitioner’s lengthy discussion of the “State of the Art” (Pet. 3-11) actually cuts against Petitioner’s obviousness case because it demonstrates that ***only Patent Owner*** invented the concepts recited in the Challenged Claims. *Apple*, 839 F.3d at 1056

("Evidence of a long-felt but unresolved need can weigh in favor of the non-obviousness of an invention because it is reasonable to infer the need would not have persisted had the solution been obvious.").

The Board should discount the manner in which Petitioner has, through its selective discussion of the "State of the Art," sought to create a trail of hindsight-based bread crumbs to suggest that the Challenged Claims are obvious, and secondary considerations are intended to prevent that approach by serving as a "guard … against hindsight bias." *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063 at 1079. Secondary considerations serve to avoid having the Board "develop a hunch that the claimed invention was obvious, and then construct a selective version of the facts that confirms that hunch." *Id*. Here Petitioner has selectively presented its allegations in a manner that seeks to lead the Board to a seemingly inevitable conclusion that the Challenged Claims are unpatentable, but the evidence presented above shows that ***only Patent Owner arrived at the solution*** to a problem the telecommunications industry has been facing for over a decade. Specifically, Patent Owner, and Apple, arrived at the accepted solution for media sharing using handheld devices, and the rest of the industry is still struggling to catch up. If the Challenged Claims were truly as obvious as Petitioner suggests, that would not be the case.

As noted above, the '933 Patent issued on May 27, 2014, but claims priority

to a provisional application filed on December 23, 2008. Apple implemented AirDrop, potentially the first commercial embodiment of the claims of the ’933 Patent in iOS 7, which was announced and launched on September 18, 2013. Up until that time, no one implemented the subject matter of Patent Owner’s claims, demonstrating a long felt but unresolved need for the claimed invention.

IV. CONCLUSION

For the reasons identified above, the Board should find the Challenged Claims patentable. As demonstrated in the foregoing argument, Apple AirDrop products embody each and every element of at least Claims 1 and 23 of the ’933 Patent and show that the Challenged Claims are not obvious in view of compelling secondary considerations. These challenged independent claims—the only independent claims included in the ’933 Patent—and the manner in which the Apple AirDrop products embody each and every claim element, definitively demonstrate the nexus between the claimed inventions. Apple AirDrop, and supporting evidence. The success of AirDrop, and competitors’ efforts to mimic the success of AirDrop by relying on the very elements recited in the claims of the ’933 Patent, demonstrate commercial success, industry praise (and acceptance), and the efforts of others in the industry to satisfy a long felt but unresolved need for the patented inventions.

For these reasons, Petitioner has failed to show that Challenged Claims 1 and 23 of the ’933 Patent are unpatentable. Challenged dependent claims 2-9, 13-14, 20-

22, 24-31, 33, 35-36, and 42-44, which depend from Claims 1 and 23, are patentable for the same reasons.

Dated: October 3, 2024

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S RESPONSE** specified in 37 C.F.R. § 42.24 has 10,698 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24(b)(1). This word count was prepared using Microsoft Word 2010.

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CERTIFICATION OF SERVICE

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