

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., and
SAMSUNG ELECTRONICS, AMERICA, INC.,

Petitioners

v.

FENDGO, LLC,

Patent Owner

Case IPR2024-00113

U.S. Patent No. 11,265,404

Petition for *Inter Partes* Review of

U.S. Patent No. 11,265,404

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PETITIONERS' EXHIBIT LIST

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1001	U.S. Patent 11,265,404 (“’404Pat.”)
1002	Declaration of William R. Michalson, Ph.D. (“ <i>Michalson</i> ”)
1003	Curriculum Vitae of William R. Michalson, Ph.D.
1004	File History of U.S. Patent 11,265,404
1005	U.S. Provisional Application 60/643,865
1006	U.S. Application 13/897,353
1007	U.K. Publication GB 2 401 752A (“ <i>Walker</i> ”)
1008	U.S. Patent 6,807,564 (“ <i>Zellner</i> ”)
1009	U.S. Patent 6,839,552 (“ <i>Martin</i> ”)
1010	WIPO Publication WO 2004/056000 A1 (“ <i>Kim</i> ”)
1011	U.S. Patent 6,449,472 (“ <i>Dixit</i> ”)
1012	WIPO Publication WO 03/040995 (“ <i>Chang</i> ”)
1013	U.S. Publication 2006/0217105A1 (“ <i>Kumar</i> ”)
1014	U.S. Publication 2005/0287980 (“ <i>Wood</i> ”)
1015	U.S. Patent 5,712,679A (“ <i>Coles</i> ”)
1016	U.S. Publication 2003/0027547A1 (“ <i>Wade</i> ”)
1017	U.S. Patent 5,771,001 (“ <i>Cobb</i> ”)
1018	WIPO Publication WO2004/042669 (“ <i>Smith</i> ”)
1019	U.S. Publication 2004/0203570 (“ <i>Berger</i> ”)
1020	WIPO Publication WO1999026208A1 (“ <i>Ahmad</i> ”)

Exhibit No.	DESCRIPTION
1021	U.S. Patent 6,963,283 (“ <i>Gonzales</i> ”)
1022	U.S. Patent 5,515,419 (“ <i>Sheffer</i> ”)
1023	Steven M. Kaplan, Wiley Electrical and Electronics Engineering Dictionary 697 (2004)
1024	WEBSTER’S NEW WORLD COLLEGE DICTIONARY 1109 (Michael Agnes et al. eds., 4th ed. 2004)
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1031	INTENTIONALLY LEFT BLANK
1032	Summary of all applications in the ’404 patent’s family
1033	Infringement Contentions served in <i>Fendgo LLC v. Samsung Electronics Co., Ltd.</i> , 2:23-cv-00221-JRG (E.D. Tex.) (July 13, 2023)
1034	Complaint in <i>Fendgo LLC v. Samsung Electronics Co., Ltd.</i> , 2:23-cv-00221-JRG (E.D. Tex.) (May 19, 2023)
1035	Order Granting Proposed Docket Control Order in <i>Fendgo LLC v. Samsung Electronics Co., Ltd.</i> , 2:23-cv-00221-JRG (E.D. Tex.) (August 8, 2023)
1036	Letter from Jin-Suk Park to Jay Nuttall dated November 1, 2023

LISTING OF CHALLENGED CLAIMS

Claim 9	
9[pre]	A mobile device, comprising:
9[a]	a camera unit, adapted to obtain at least one of image data and audio data;
9[b]	a location unit, adapted to obtain location data;
9[c]	a transmitting unit, adapted to transmit as emergency information the image data, the audio data, and the location data along with specific information including owner identification information; and
9[d]	a panic button, adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated,
9[e]	wherein the panic button is activated by a series of depressings of the panic button.
Claim 10	
10	The mobile device as set forth in claim 9, wherein when the panic button is activated a public or private network for emergency purposes is dialed.
Claim 11	
11	A mobile device as set forth in claim 9, wherein the specific information includes a pre-recorded emergency message.
Claim 12	
12	The mobile device of claim 9, wherein a number of depressings of the panic button to activate the panic button is three.
Claim 13	
13[pre]	A mobile device, comprising:
13[a]	a camera unit, adapted to obtain at least one of image data and audio data;
13[b]	a location unit, adapted to obtain location data;

13[c]	a transmitting unit, adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location, along with specific information including owner identification information; and
13[d]	a panic button, which, when activated, performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location, and (2) dialing a public or private network for emergency purposes,
13[e]	wherein the panic button is activated by a series of depressings of the panic button.
Claim 14	
14	The mobile device of claim 13, wherein a number of depressings of the panic button to activate the panic button is five.
Claim 15	
15[pre]	15. An emergency safety device, comprising:
15[a]	a camera unit, adapted to obtain at least one of image data and audio data;
15[b]	a location unit, adapted to obtain location data;
15[c]	a transmitting unit, adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location via text message, along with specific information including owner identification information; and
15[d]	a panic button, adapted to activate the transmitting unit when activated,
15[e]	wherein the panic button is activated by a button sequence.

I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Samsung” or “Petitioners”) request *inter partes* review (“IPR”) of claims 9-15 (“Challenged Claims”) of U.S. Patent No. 11,265,404 (“the ’404 patent”).

II. GROUNDS FOR STANDING

Petitioners certify that the ’404 patent is available for IPR, and that Petitioners are not barred or estopped from requesting IPR to challenge the claims on the grounds herein.

III. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED

Petitioners respectfully request review and cancellation under 35 U.S.C. §311 of the Challenged Claims in view of:¹

¹ Petitioners do not concede that any Challenged Claims satisfy other requirements for patentability that cannot be raised in IPR.

Ground	Claims	Basis
1A	9, 10, 12-14	§103: <i>Walker, Kim</i>
1B	14	§103: <i>Walker, Kim, Dixit</i>
2	15	§103: <i>Walker</i>
3A	9-14	§103: <i>Zellner, Kim</i>
3B	14	§103: <i>Zellner, Kim, Dixit</i>
4A	9, 10, 12-14	§103: <i>Martin, Kim</i>
4B	14	§103: <i>Martin, Kim, Dixit</i>

As shown below, each reference pre-dates the '404 patent's earliest proclaimed priority date (January 14, 2005), which Petitioners do not concede. Petitioners reserve the right to dispute any priority claim.

Reference	Date	Prior Art At Least Under
<i>Walker</i>	11/17/2004 (publication date)	§102(a)
<i>Kim</i>	07/01/2004 (publication date)	§102(a)
<i>Dixit</i>	05/05/1999 (filing date) 09/10/2002 (issue date)	§102(b)
<i>Zellner</i>	06/02/2000 (filing date) 10/19/2004 (issue date)	§§102(a), 102(e)
<i>Martin</i>	12/26/2000 (filing date) 01/04/2005 (issue date)	§§102(a), 102(e)

IV. OVERVIEW OF THE '404 PATENT

The '404 patent relates to “a self-defense mechanism” integrated with “a mobile device.” ’404pat., Abstract. “When the self-defense mechanism is activated,” an integrated camera unit “takes an image of the attacker,” and the device “sends image data and audio data to the authorities along with specific information” such as a “name and description of the owner of the self-defense device.” *Id.*, 3:4-13. The self-defense mechanism may be “a separate panic button located on the device.” *Id.*, 3:16-19. “The panic button may be activated by ... [a] series of depressions of the panic button” or a “button sequence.” *Id.*, 3:60-62, 7:20-21.

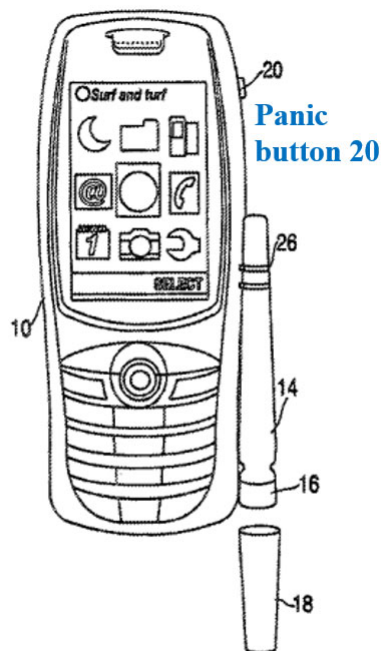


FIG. 2A

'404pat., FIG. 2A (annotated).²

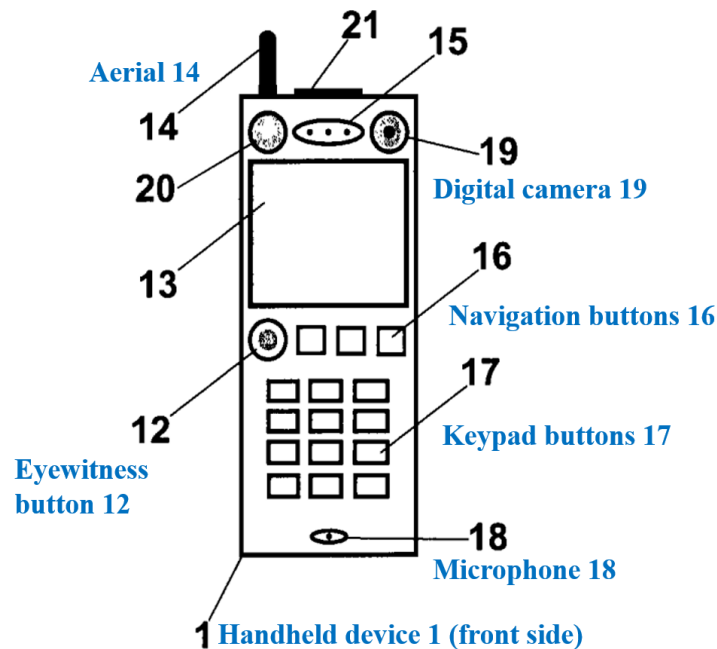
V. OVERVIEW OF THE PRIOR ART

A. *Walker*

Walker discloses a “mobile communications handheld device and remote data recording and storage system” that enables a user to press an “eyewitness button 12” and “instantly initiate[] a series of actions,” including “immediately capturing and transmitting streaming video and sound” “together with precise geographical coordinates” to the remote facility. *Walker* ¶¶[0038], [0092]-[00103].³

² All emphases and annotations are added unless otherwise noted.

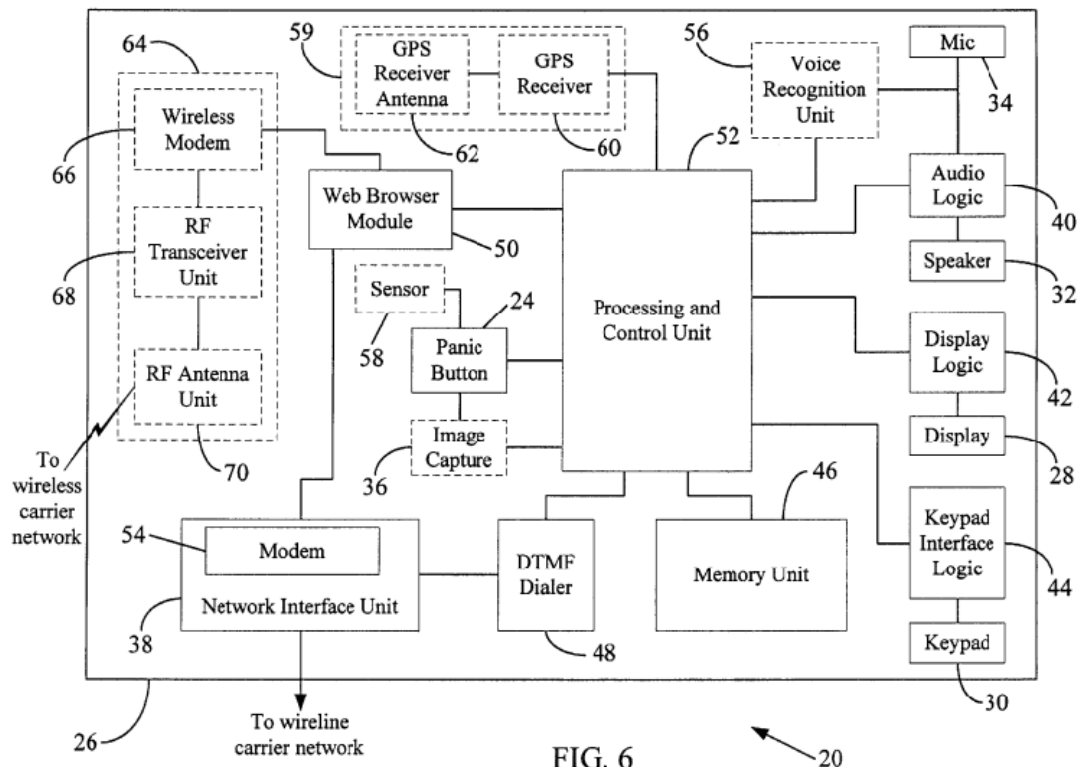
³ Petitioners have added paragraph numbers to *Walker*.



Walker, FIG. 2 (annotated).

B. Zellner

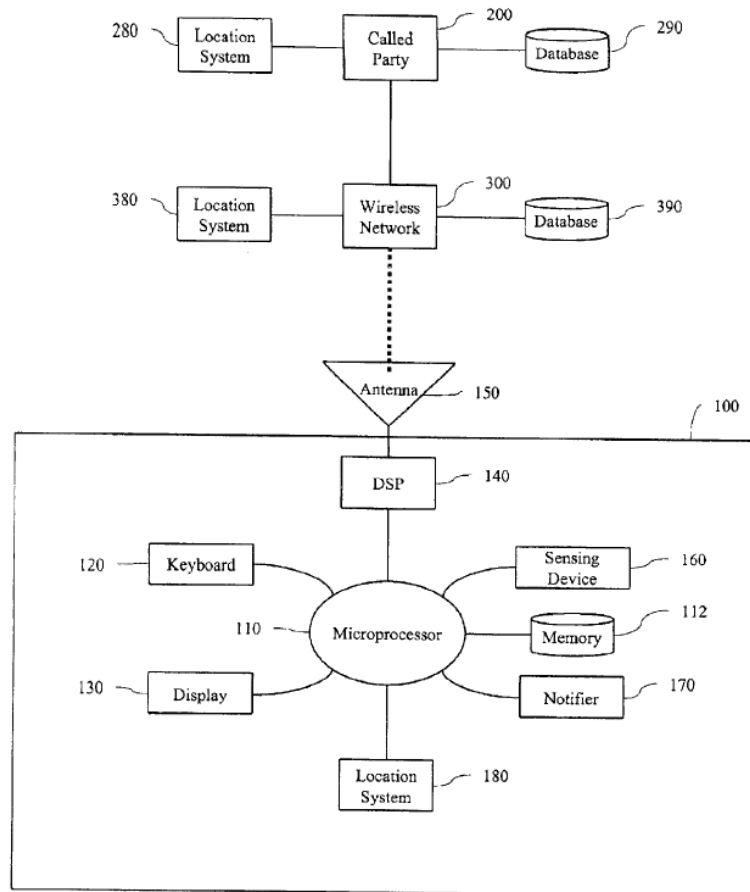
Zellner discloses a portable IP device with a built-in “panic button,” that, when pressed, causes the device to automatically transmit one or more TCP/IP messages to an emergency service center (ESC) (e.g., police station) requesting emergency help. *Zellner*, 5:40-43, 6:55-58, 19:29-34. *Zellner* discloses implementing the portable IP device with a camera, microphone, and GPS, and that, upon pressing the panic button, the device captures and transmits images, the user’s voice, location, and personal information to the ESC. *Id.*, 8:3-14, 9:34-36, 13:9-50, 14:14-38, Claim 3.



Zellner, FIG. 6.

C. *Martin*

Martin discloses a wireless telephone with a camera, microphone, and GPS, and a method including the steps of receiving a keystroke sequence (e.g., pressing a key one or more times), establishing a wireless communication session, and transmitting location, captured content (e.g., images, sound), and a user profile to a called party. *Martin*, 3:12-16, 3:37-38, 3:59-62, 4:34-45, Claims 1 and 4, FIG. 3.



Martin, Fig. 2.

VI. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSITA”) at the time of the ’404 patent’s priority date would have had at least a Bachelor’s of Science Degree (or equivalent) in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, and about 1-2 years of experience working with telematics systems (e.g. familiarity with wireless communications, geolocation systems, and human-computer interfaces). A greater amount of education in an academic area emphasizing electrical engineering,

computer engineering, computer science, or a related technical field, would compensate for fewer years of work experience, and more years of work experience would compensate for less education. This is the appropriate level of skill, whether the claims are entitled to priority as of January 2005 or January 2019. *Michalson* ¶¶ 14-16.

VII. CLAIM CONSTRUCTION

Petitioners are unaware of any “prior claim construction determination” related to the ’404 patent. *See* 37 C.F.R. §42.100(b). When determining validity, “claim terms need only be construed to the extent necessary to resolve the controversy.” *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011). Given the close correlation and substantial identity between the prior art references and the Challenged Claims, Petitioners believe that no express constructions of the claims are necessary to assess whether the prior art reads on the Challenged Claims. Thus, the claims should be given their plain and ordinary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Petitioners reserve the right to respond to constructions offered by Patent Owner (“PO”) or adopted by the Board. Petitioners are not waiving arguments under 35 U.S.C. §112 or arguments regarding claim scope possibly raised in litigation.

VIII. DETAILED EXPLANATION OF GROUNDS

A. Ground 1A: *Walker* in Combination with *Kim* Renders Obvious Claims 9, 10, 12-14

1. Claim 9

a. 9[pre]⁴

To the extent the preamble is limiting, *Walker* discloses or suggests this feature. *Michalson* ¶¶56-58. For example, *Walker* discloses a “mobile communications handheld device.” *Walker* ¶[0038]; *see also id.* ¶¶[0063]-[0064], FIGS. 1-3. Accordingly, *Walker* discloses or suggests a mobile device (“a mobile device”). *Michalson* ¶58.

b. 9[a]

Walker discloses or suggests this feature. *Michalson* ¶¶59-65. For example, *Walker* discloses that the mobile device includes a digital camera and captures video and sound. *Walker* ¶¶[0038] (describing “immediately capturing and transmitting streaming video and sound”), [0063]-[0064] (handheld device includes “digital camera”); *see also id.* ¶¶[0043]-[0044], [0081]-[0082], [0091], [0092], [0098], [0099]; *Michalson* ¶¶60-62.

⁴ The specific claim language is reproduced above in the Listing of Challenged Claims.

This is consistent with how the '404 patent describes this feature. '404pat., 3:4-15 (“when the self-defense mechanism is activated, a camera built into the mobile phone/device takes an image of the attacker, and the mobile phone/device sends image data and audio data to the authorities... . In this way, the present invention utilizes a built-in camera to take still or moving images of the attacker and send the image and/or audio data to the authorities”). A POSITA would have understood video to comprise “image data,” and “sound” to comprise “audio data.” *Michalson* ¶¶63-64.

Accordingly, *Walker* discloses or suggests a handheld mobile communications device with a camera (“camera unit”) that captures pictures, videos, and/or sound (“adapted to obtain at least one of image data and audio data”). *Id.* ¶65.

c. 9[b]

Walker discloses or suggests this feature. *Michalson* ¶¶66-73. For example, *Walker* discloses that the mobile device includes “A-GPS circuitry.” *Walker* ¶¶[0092], [0096], [0101] (describing A-GPS circuitry “built into” the device); *see also id.* ¶¶[0077]-[0079], [0081]-[0082]; *Michalson* ¶¶67-68. *Walker* further states that the mobile device calculates “location coordinates” from data obtained by the A-GPS circuitry. *Id.* ¶[0101]. A POSITA would have understood that “location coordinates” are expressed in a latitude and longitude pair, such as in x-y format. *Michalson* ¶¶68-70.

This is consistent with the '404 patent's description of this feature. *'404pat.*, 6:64-7:6. In particular, the '404 patent describes “obtain[ing] location information through a form of GPS ... on the device” including “GPS or AGPS,” and that “[l]ocation information ... can be an x-y coordinate or close to it that the phone obtains.” *Id.* Thus, a POSITA would have understood that data obtained by *Walker*'s A-GPS circuitry and the calculated coordinates constitute “location data.” *Michalson* ¶¶71-72.

Accordingly, *Walker* discloses or suggests that the mobile device includes A-GPS circuitry (“a location unit”) to obtain data used by the device to calculate location coordinates (“adapted to obtain location data.”). *Id.* ¶73.

d. 9[c]

Walker discloses or suggests this feature. *Michalson* ¶¶74-103. For example, *Walker* discloses that the mobile device includes “cellular communications equipment enabling all relevant data to be transmitted in real time” according to the CDMA2000 1xEV-DV protocol, which provides wireless access to the Internet and is based on “standard Internet Protocols (IP)”. *Walker* ¶¶[0054], [0065]; *see also id.* ¶[0066]-[0074]; *Michalson* ¶¶75-76. *Walker* also discloses implementing the mobile device with related or alternative technologies for transmitting data, such as an aerial 14, Bluetooth, and dial-up networking. *Id.* ¶¶[0063] (“aerial 14”), [0140] (“Bluetooth” or similar technologies), [0081]-[0082] (“Bluetooth” and “dial-up

networking”), [0103], [0107], [0109], [0134], [0159]; *Michalson* ¶¶78-80. *Walker* also discloses using email or other electronic messaging services to transmit recorded data. *Id.* ¶134; *Michalson* ¶80.

This is consistent with how the ’404 patent describes this feature. In particular, the ’404 patent describes that the alleged invention may be used with cellular telephones (’404pat., 8:29-31), and describes transmitting information via TCP/IP or MMS, or other protocols, including “regular email” or a “picture-based e-mail type system” (*id.*, 6:20-53). A POSITA would have understood that cellular telephones have cellular communications equipment, and that TCP/IP is a standard Internet protocol. *Michalson* ¶¶82-83. Thus, a POSITA would have understood *Walker* to disclose or suggest a “transmitting unit.” *Michalson* ¶84.

Walker also discloses transmitting “streaming video and sound data and other data” and that, once calculated, the location coordinates of the device are “immediately transmitted to the data storage facility 7, integrated with the continuing video stream, sound data, and other data.” *Id.* ¶¶[0092], [0099], [0101], [0103]; *Michalson* ¶85. The audio, video, and location data is used to inform others of a crime or when the user is being attacked. *Id.* Abstract, ¶¶[0021], [0043]-[0049]; *Michalson* ¶86. A POSITA would have understood that the transmitted image, audio, and location data therefore related to an ongoing emergency. This is consistent with how the ’404 patent describes “emergency information.” *Id.*, 6:20-23 (“The present

invention in one embodiment communicates the emergency information (image information, location information, owner information, etc.)”), *see also id.*, 5:34-59; *Michalson* ¶87. Thus a POSITA would have understood *Walker* to disclose or suggest that the mobile device transmitting unit is “adapted to transmit as emergency information the image data, the audio data, and the location data.” *Michalson* ¶88.

Walker further discloses that the remote data storage facility creates a file linked with the “device owner’s identity” to record the data transmitted from the mobile device. *Id.* ¶¶[0092], [0097]; *see also id.* ¶[0106]; *Michalson* ¶89. Accordingly, a POSITA would have understood *Walker* to disclose the mobile device transmitting information to identify the device owner (“owner identification information”). *Michalson* ¶90.

If PO argues or the Board finds that *Walker* does not disclose transmitting owner identification information, then, at a minimum, a POSITA would have found it obvious to modify *Walker* to do so. *Michalson* ¶¶91-97. As noted above, *Walker* discloses that the remote data storage facility creates a file linked with the “device owner’s identity” to record the data transmitted from the mobile device. *Walker* ¶¶[0092], [0097], [0106]. *Walker* is also concerned with identifying the individuals at the scene of a crime or other event. *Walker*, ¶¶[0001], [0040]-[0041], [0043], [0048]-[0049]; *Michalson* ¶93. These disclosures are at least an express suggestion to transmit information to identify the owner of the device. In particular, a POSITA

would have understood that transmitting the owner identification information would have allowed the remote storage facility to link the recorded information with the device owner's identity and would have advanced *Walker*'s objective to identify individuals present at the scene of the emergency described by the image, audio, and location data. *Michalson* ¶94.

A POSITA would have had a reasonable expectation of success in modifying *Walker* to transmit information to identify the owner to accomplish *Walker*'s objectives because techniques for doing so were well-known. *Michalson* ¶¶95-97 (discussing *Chang*, Abstract, 3:6-22, 11:1-7, 12:13-18, FIGS. 3A-3B).

A POSITA would have further understood *Walker* to disclose or suggest that the owner identification information is transmitted in a manner that associates it with the transmitted image, audio, and location data because that is how a POSITA would have understood the storage facility could link the transmitted data to the owner's identity and appropriately notify emergency services. *Id.* ¶98. Indeed, *Walker* discloses that the steps of creating the linked file and transmitting the data are initiated automatically and in parallel in response to the press of the eyewitness button. *Walker* ¶¶[0092]-[0105], [0109]; *Michalson* ¶99. Thus, a POSITA would have understood that, at a minimum, the device owner identity information was transmitted in parallel or close in time to the video, sound, and location data. *Michalson* ¶100. This is consistent with how the '404 patent describes transmitting

emergency information “along with” owner identification information “so that help can be dispatched right away.” ’404pat., 5:24-57; *Michalson* ¶91. Thus, a POSITA would have understood *Walker* to disclose or suggest transmitting image, audio, and location data “along with” owner identification information. *Michalson* ¶¶101-102.

Accordingly, *Walker* discloses or suggests a mobile device with cellular communications equipment and various additional or alternative transmission technologies (a “transmitting unit”) to transmit image, audio, and location data in emergencies (“adapted to transmit as emergency information the image data, the audio data, and the location data”) in addition to information to identify the owner of the device so that it could be linked at the storage facility and provided to emergency services (“along with specific information including owner identification information”). *Id.* ¶103.

e. 9[d] & 9[e]

Walker in combination with *Kim* discloses or suggests 9[d] and 9[e]. *Michalson* ¶¶104-143.

(i) “a panic button ... wherein the panic button is activated by a series of depressings of the panic button”

Walker in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶104-133. *Walker* discloses an “eyewitness button 12” that, when pressed once (for

example, during an attack), initiates various operations related to collecting and transmitting information about the attack. *Walker* ¶¶[0092]-[0105]; *Michalson* ¶105.

A POSITA would have understood that Walker’s eyewitness button 12 is akin to the ’404 patent’s “panic button.” *Michalson* ¶106. The ’404 patent describes a “separate panic button located on the device” such as “panic button 20.” ’404pat., 3:16-21, 5:37-42, 8:2-3, FIG. 2A. A POSITA would have understood the “panic button” was a dedicated button with a panic function (as opposed to a button with multiple functions), because the ’404 patent describes that it may be activated with a single press and does not ascribe any non-panic-related functions to it (such as a digit key for dialing a phone number). *Michalson* ¶107. Similarly, *Walker* does not ascribe any non-panic-related functions to the eyewitness button 12 and, accordingly, a POSITA would therefore have understood it to be a dedicated button. *Id.*

The “eyewitness button 12” is “recessed and set to operate at a higher finger pressure than other buttons on the device so as to minimise [*sic*] the occurrence of accidental activation.” *Walker* ¶¶ [0081], [0083], FIG. 2. A POSITA would have understood that there were other known ways to design a dedicated panic button so as to minimize the occurrence of accidental activation. *Michalson* ¶109. For example, *Kim* is similar to the ’404 patent and *Walker*, and it discloses a device and method “to transmit emergency information to an emergency contact with a simple

manipulation of a button on a mobile phone.” *Kim*, Abstract; *Michalson* ¶110. The emergency key button 32 is mounted on an external lateral surface of the phone (*Kim*, 9:2-11, 4:24-26, Fig. 3a) and “executes an emergency mode for notifying an emergency state by way of button manipulation.” *Kim*, 8:22-9:1, 12:22-13:6, 5:16-22; *Michalson* ¶¶111-112. *Kim*’s emergency key button is similar to *Walker*’s eyewitness button 12 insofar as it is a dedicated button, but unlike *Walker*’s eyewitness button 12, *Kim* does not describe the emergency key button 32 as recessed, or that it is set to operate at a higher finger pressure than other buttons. *Michalson* ¶¶113. And, unlike the eyewitness button, instead of requiring a single press, the user executes *Kim*’s emergency mode when the “emergency key button 32 is manipulated a plurality of times, e.g., three times, within a set period of time.” *Kim*, 13:1-6.

Kim’s disclosure related to emergency key button 32 is consistent with how the ’404 patent describes a panic button that is activated by a series of presses. *Michalson* ¶¶114-115. The ’404 patent also describes that “[t]he panic button may be activated by ... a depressing or series of depressions of the panic button.” *Id.*, 3:60-62. A POSITA would have understood that in the ’404 patent, a “series of depressions” means more than one depression because, for example, the ’404 patent describes activating the panic button by a “depressing or series of depressions.” *Id.* That is, the ’404 patent distinguishes between a single “depressing” and a “series of

depressions.” *Michalson* ¶115 (citing EX1023). This is consistent with how *Kim* describes that the emergency key button 32 is manipulated a plurality of times, e.g., three times, to execute the emergency mode. *Id.* Thus, a POSITA would have understood *Kim* to disclose that the emergency key button 32 is activated to trigger the emergency mode by being manipulated, i.e., pressed, a series of times (e.g., three times). *Id.* ¶116.

A POSITA would have been motivated to combine *Walker* and *Kim* and considered it obvious to substitute *Kim*’s dedicated emergency key button that requires being manipulated a plurality of times (e.g., three times) for *Walker*’s recessed eyewitness button requiring a higher finger pressure to initiate *Walker*’s collection and transmission of data. *Michalson* ¶¶117. The combination discloses or suggests a mobile device with a dedicated emergency key button that, when pressed a plurality of times (e.g., three times), triggers a series of operations, including *Walker*’s collection and transmission of data. *Id.*

A POSITA would have appreciated that *Kim*’s emergency key button serves the same purpose as *Walker*’s eyewitness button because they are both used to trigger transmission of information from a mobile device related to an emergency. *Michalson* ¶118. A POSITA would have understood that *Kim*’s technique of requiring the emergency key button to be pressed a plurality of times (e.g., three times) serves the same purpose to minimize accidental activation as implementing

Walker's eyewitness button in a recessed fashion and setting it to operate at a higher finger pressure because the prior art discloses that requiring a series of presses minimizes the occurrence of accidental/false activation. *Michalson* ¶¶119-124 (discussing *Wade* ¶[0317] ("the 3 button depressions minimize the occurrence of a false alarm or accidental emergency call being made"), *Ahmad* at 8:6-11, Fig. 4; *Sheffer* at Abstract, 11:30-39, 12:53-56; *Gonzales* at Abstract, 1:32-40). Accordingly, implementing *Kim*'s emergency key button into *Walker* would have been consistent with and retained *Walker*'s goal to minimize the risk of accidental activation. *Michalson* ¶125.

Therefore, a POSITA would have understood that modifying *Walker* to use *Kim*'s emergency key button that is pressed a plurality of times would have amounted to the simple substitution of one known element (*Kim*'s emergency key button 32 that must be pressed a plurality of times (e.g., three times)) for another (eyewitness button 12 that is recessed and set to operate at a higher finger pressure) to obtain predictable results (*Walker*'s mobile device with an emergency key button that, when pressed a plurality of times (e.g., three times), triggers collection and transmission of data). *Michalson* ¶126. See, e.g., *Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1344 (Fed. Cir. 2008).

A POSITA would have had a reasonable expectation of success in making the substitution at least because *Walker* itself states that any "input feature" "may be set

to act as the eyewitness button” and that any “series” of inputs can initiate the collecting and transmitting of data. *Walker* ¶¶[0132] (describing “pressing a nominated button a predetermined number of times” or using “any other sequence or series of actions and/or inputs into the device.”), [0151] (describing using “any ... input feature”); *Michalson* ¶127. Moreover, the prior art has several examples of buttons that were similarly configured to be activated by a plurality of presses, which further demonstrates that configuring *Walker* to have an emergency key button activated in that manner would have been within the skill of a POSITA. *Michalson* ¶¶128-130 (discussing, e.g., *Berger* ¶[0026], *Cobb*, 4:12-14, *Smith*, 9:1-8).

To be sure, a POSITA would have understood that the substitution would have involved a tradeoff, as a recessed button set to operate at higher finger pressure has different advantages than a non-recessed button that must be pressed a plurality of times. For example, the former may be more difficult for some people (such as the elderly) to locate and press than the latter, while the latter may be more susceptible to being falsely activated by, for example, other items (e.g., by a book or other clutter if stored in a bag) than the former. A POSITA would have appreciated such tradeoffs and would have nevertheless considered the substitution obvious. *Michalson* ¶131. *See Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016). Moreover, even though *Walker* discloses that a “nominated button” may initiate *Walker*’s collection and transmission of data, a POSITA would

have understood that using a dedicated button that required being pressed a plurality of times was advantageous over a “nominated button” because, for example, a dedicated button provides a simpler design and a lower risk of user-confusion in emergency situations. *Michalson* ¶132.

Accordingly, the *Walker-Kim* combination discloses or suggests a mobile device with a dedicated emergency key button (“panic button”) that, when pressed a plurality of times (e.g., three times), activates the emergency key button to trigger the collection and transmission of emergency information (“wherein the panic button is activated by a series of depressings of the panic button”). *Michalson* ¶133.

- (ii) **the panic button is “adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated”**

Walker in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶134-143. *Walker* discloses that the eyewitness button, when pressed, initiates various operations including obtaining and transmitting the data (i.e., video, sound, location, and owner identification information) to the remote data storage facility. *Walker* ¶¶[0092]-[0109]; *Michalson* ¶135. This is consistent with how the ’404 patent describes “activating” the camera unit, the location unit, and the transmitting

unit to perform a function. *Id.*, 5:24-42; *see also id.*, 7:8-21, 7:51-62; *Michalson* ¶136.

As explained in §VIII.A.1.e(i), in the *Walker-Kim* combination, *Kim*’s dedicated emergency key button is substituted for *Walker*’s eyewitness button to initiate the same operations when the emergency key button is pressed a plurality of times (e.g., three times). *Michalson* ¶137.

Walker further discloses that data from the handheld communications device is transmitted to a specified location (e.g., a data storage facility) as opposed to merely broadcast. *Michalson* ¶¶138-139. The mobile device transmits the recorded data to the data storage facility “through a dialup connection or by email or by email attachment or by an electronic messaging service.” *Id.* ¶[0134]; *see also id.* ¶¶[0084]-[0085], claim 86 (“wherein said handheld device transmits said data to said data storage facility through a dialup connection or by email or by email attachment or by an electronic messaging service”).

A POSITA would have understood that a dial-up connection, email, or electronic messaging service would have required a recipient location to be selected or specified, for example, by the system designer or the user (e.g., by inputting a phone number or an email address). *Michalson* ¶140 (citing EX1023). This is consistent with how the ’404 patent describes transmitting to a “specified location.” ’404pat., 6:38-42 (“MMS is one method enabling the present invention to obtain

video/audio information and send the data to a specified location.”); *see also id.*, 7:41-44 (describing transmission “to the emergency personnel”), 3:4-21 (describing transmitting data “to the authorities”), 6:44-53 (describing transmission through “regular e-mail”). Thus, a POSITA would have understood *Walker* to disclose sending the data and information to a specified location. *Michalson* ¶¶141-142.

Accordingly, the *Walker-Kim* combination discloses or suggests a mobile device with a dedicated emergency key button (“a panic button”) that initiates various operations, including capturing and transmitting video, sound, and coordinates, along with information to identify the owner of the device to the data storage facility (“adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location”) when the emergency key button is pressed a plurality of times (e.g., three times) (“when the panic button is activated, wherein the panic button is activated by a series of depressings of the panic button.”). *Michalson* ¶143.

2. Claim 10

Walker in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶144-153.

As detailed in §VIII.A.1.e, a POSITA would have understood the *Walker-Kim* combination to disclose or suggest that when the emergency key button is pressed a plurality of times (e.g., three times), it initiates a number of actions, including

communication between the mobile device and the data storage facility. *Michalson* ¶145. *Walker* discloses that the communication between the handheld device and the storage facility can utilize a variety of communication networks. For example, *Walker* discloses embedding the facility within the PSTN (public switched telephony network), making it accessible by “one or more dialup telephone numbers,” and that recorded data may be transmitted to the facility through the dialup connection. *Id.* ¶¶[0060], [0084]-[0085], [0134], claim 51; *Michalson* ¶¶146-148.

Furthermore, *Walker* explains that if the handheld device “is operating in a network 4 where a dial-up model is involved and/or a successful connection is not achieved between the handheld device 1 and data storage facility 7 at the first dialling [*sic*] attempt” then the video, sound, positioning, and other data are recorded while the device “automatically and constantly attempts to resend the data or redials a preset number until a connection is made and the data are transmitted.” *Id.* ¶[0103]; *see also id.* ¶[0109]. Thus, a POSITA would have understood *Walker* in combination with *Kim* to disclose or suggest that when the emergency key button is pressed a plurality of times (e.g., three times), the handheld mobile device dials a number to form a dial-up connection to the remote data storage facility on the PSTN to transmit recorded data. *Michalson* ¶¶149-150.

Moreover, *Walker* discloses that the transmitted and recorded data is used to assist security and police in responding to crimes. *Walker* ¶¶[0001], [0040]-[0041],

[0043], [0048]-[0049], [0141]; *Michalson* ¶151. This is consistent with how the '404 patent describes this feature. '404pat., 5:43-59 (“The system can be linked in with an emergency assistance number such as 911 or to a private emergency network specifically set up for these purposes to work with the public authorities in assisting victims.”). *Michalson* ¶152.

Accordingly, the *Walker-Kim* combination discloses or suggests a device with a dedicated emergency key button that, when pressed a plurality of times (e.g., three times) (“wherein when the panic button is activated”), the handheld wireless device automatically establishes a dial-up connection to the storage facility embedded within a PSTN to transmit information to be used in assisting emergency response personnel in responding to emergencies (“a public or private network for emergency purposes is dialed”). *Michalson* ¶153.

3. Claim 12

Walker in combination with *Kim* discloses or suggests this feature for the reasons discussed in §VIII.A.1.e(i). *Michalson* ¶154.

4. Claim 13

a. 13[pre], 13[a], 13[b], 13[e]

Walker in combination with *Kim* discloses or suggests claim 13. *Michalson* ¶¶140-144. With respect to 13[pre], 13[a], 13[b], and 13[e], see sections VIII.A.1.a, VIII.A.1.b, VIII.A.1.c, and VIII.A.1.e(i), respectively. *Michalson* ¶155.

b. 13[c]

Limitation 13[c] is the same as 9[c] except that it further requires that the transmitting unit is adapted to transmit data and information to a “specified location.” The *Walker-Kim* combination discloses or suggests 9[c] as explained in §VIII.A.1.d. As explained in §VIII.A.1.e(ii), a POSITA would have understood *Walker* to disclose or suggest transmitting the data and information to a specified location. *Michalson* ¶156.

Accordingly, the *Walker-Kim* combination discloses or suggests cellular communications equipment and various additional or alternative transmission technologies (a “transmitting unit”) to transmit image, audio, and location data in emergencies to remote storage facility (“adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location”) along with information to identify the owner of the device (“along with specific information including owner identification information”). *Michalson* ¶157.

c. 13[d]

Limitation 13[d] is the same as limitation 9[d] except that it also requires the dialing function described in claim 10. The *Walker-Kim* combination discloses or suggests 9[d] as explained in §VIII.A.1.e. And the *Walker-Kim* combination discloses or suggests claim 10 as explained in §VIII.A.2. *Michalson* ¶158.

Accordingly, the *Walker-Kim* combination discloses or suggests that when the dedicated emergency key button is pressed a plurality of times (e.g., three times) (“when the panic button is activated”) it causes the device to initiate various operations, including capturing and transmitting video, sound, and coordinates, along with information to identify the owner of the device (“performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location”); and to automatically establish a dial-up connection to the storage facility embedded within a PSTN to transmit information to be used in assisting emergency response personnel in responding to emergencies (“and (2) dialing a public or private network for emergency purposes”). *Michalson* ¶159.

5. Claim 14

Walker in combination with *Kim* discloses or suggests claim 14. *Michalson* ¶¶160-163. As explained in §VIII.A.1.e(i), the combination of *Walker* and *Kim* discloses or suggests a mobile device with an emergency key button (“panic button”) that, when pressed a plurality of times (e.g., three times), triggers the collection and transmission of emergency information (“wherein the panic button is activated by a series of depressings of the panic button”). *Michalson* ¶161. A POSITA would have understood that pressing a key a “plurality of times” discloses pressing the key two or more times. *Michalson* ¶162 (citing EX1024). Because a range of two or more

presses does not have an upper bound, it overlaps and encompasses the claimed five presses. *Id.*

This disclosure presumptively renders obvious “wherein a number of depressings of the panic button to activate the panic button is five.” *See, e.g., Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1322 (Fed. Cir. 2004) (“where there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness”); *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (“In fact, when, as here, the claimed ranges are completely encompassed by the prior art, the conclusion is even more compelling than in cases of mere overlap”).

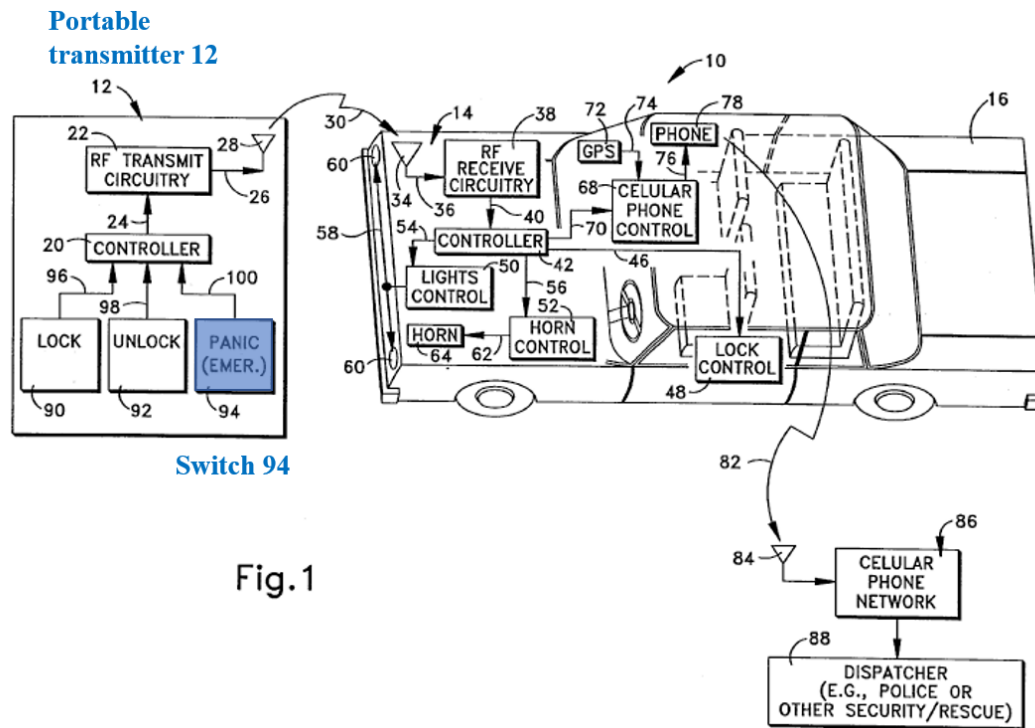
Nor does the ’404 patent disclose that there is something special or critical about five button presses. *Michalson* ¶162; *see E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1008 (Fed. Cir. 2018) (“The point of our overlapping range cases is that, in the absence of evidence indicating that there is something special or critical about the claimed range, an overlap suffices to show that the claimed range was disclosed in—and therefore obvious in light of—the prior art.”).

Accordingly, the *Walker-Kim* combination discloses or suggests that the dedicated emergency key button is pressed a plurality of times to activate the emergency key button (“wherein a number of depressings of the panic button to activate the panic button is five.”). *Michalson* ¶163.

B. Ground 1B: *Walker* in View of *Kim* and *Dixit* Renders Claim 14 Obvious

As explained in §VIII.A.5, *Walker* in combination with *Kim* renders claim 14 obvious. To the extent the Board disagrees, then claim 14 would have been obvious in view of *Walker*, *Kim*, and *Dixit*. *Michalson* ¶¶164-171.

Dixit is similar to the '404 patent, *Walker*, and *Kim*. *Dixit* is titled “System and method for remote convenience function control with at-vehicle and remote assistance-summoning functions.” *Michalson* ¶165. It discloses a remote convenience system 10 with a portable hand-held transmitter unit 12, and a vehicle-based receiver/controller unit 14 located at a vehicle 16. *Dixit*, Abstract. The portable transmitter 12 has a panic switch 94 that, when “actuated five times,” causes the vehicle to transmit a remote assistance-summoning request to, for example, the police. *Dixit*, 4:47-5:49, FIGs. 1, 3; *Michalson* ¶166.



Dixit, FIG. 1 (annotated).

A POSITA would have understood that using a plurality of button presses was a well-known technique for minimizing the risk of accidental activation. *Michalson* ¶167; *see also* §VIII.A.1.e(i). The '404 patent does not disclose any special or critical results in terms of risk reduction from using five button presses compared to any other number of button presses more than one. To be sure, a POSITA would have understood that requiring five button presses would predictably lead to fewer accidental activations compared to four, three, or two button presses with a corresponding tradeoff in terms of how easy it is to activate the panic button when needed. But considering the pros and cons, a POSITA would not have been dissuaded from requiring five button presses, as demonstrated by *Dixit*. *Michalson*

¶168. Thus, a POSITA would have been motivated to use five button presses instead of three to, for example, further reduce the risk of accidental activation of the panic button. *Id.* ¶169.

A POSITA would have understood the proposed combination to amount to the simple substitution of one known element (a panic button that must be pressed five times) for another (a panic button that must be pressed three times) to obtain predictable results (a panic button that is activated after five presses). *Michalson* ¶170.

Accordingly, the *Walker-Kim-Dixit* combination discloses or suggests a mobile device with a dedicated emergency key button that must be pressed five times (“wherein a number of depressings of the panic button to activate the panic button is five.”). *Id.* ¶171.

C. Ground 2: *Walker* Renders Obvious Claim 15

1. Claim 15

a. 15[pre]

To the extent the preamble is limiting, *Walker* discloses or suggests it. *Michalson* ¶¶172-175. For example, *Walker* discloses that its mobile device may be used by someone being attacked to transmit information for use by the police. *Walker*, ¶¶[0038]-[0049]; *Michalson* ¶173. This is consistent with how the ’404 patent describes this feature. *See, e.g., ’404pat.*, 2:36-42 (“It is also an object of this

invention to provide a self defense device which is capable of quickly notifying the authorities that an attack is under way”). *Michalson* ¶174.

Accordingly, *Walker* discloses or suggests a mobile device that may be used by someone under attack (“[a]n emergency safety device.”). *Id.* ¶175.

b. 15[a]-[b]

Walker discloses or suggests 15[a] and 15[b] for the same reasons discussed above in sections VIII.A.1.b and VIII.A.1.c, respectively. *Michalson* ¶176.

c. 15[c]

Walker discloses or suggests this feature. *Michalson* ¶¶177-187. Limitation 15[c] is the same as limitation 9[c] except that 15[c] further requires that the transmitting unit is adapted to transmit data and information to a “specified location via text message.” *Walker* discloses or suggests limitation 9[c] for the same reasons discussed above in §VIII.A.1.d. As explained in §VIII.A.1.e(ii), a POSITA would have understood *Walker* to disclose or suggest transmitting the data and information to a specified location. *Michalson* ¶¶179-180.

As to transmission “via text message,” *Walker* discloses that the handheld mobile communications device is capable of “text messaging,” “picture messaging,” “video messaging,” and “email” (*Walker* ¶¶[0081]-[0082]), and transmitting the recorded data (e.g., the video, sound, and location data) to the data storage facility “by email or by email attachment or by an electronic messaging service.” *Id.*

¶[0134]; *see also id.* ¶¶[0103]-[0105] (describing the “images, sound, geographical coordinates” as the “recorded” data); *Michalson* ¶¶181-182.

A POSITA would have understood that “electronic messaging” refers to “[a]ny form of sending, receiving, and exchanging messages, such as emails, instant messages, MMSs, or SMSs, utilizing a communications network.” *Michalson* ¶¶183-184 (citing EX1023). Thus, a POSITA would have understood *Walker*’s disclosure of using an “electronic messaging service” to be an express suggestion to use, for example, a Multimedia Messaging Service (MMS), to transmit the recorded video, sound, and location data. *Michalson* ¶184.

A POSITA would have understood that in the context of the ’404 patent, MMS is a form of text messaging that includes multimedia files such as pictures and audio. ’404pat., 6:28-43 (“The present invention may also use an MMS (Multimedia Message Service) system, which is a mix between internet protocol and e-mail protocol. More specifically, MMS is a store-and-forward method of transmitting graphics, video clips, sound files, and short text messages over wireless networks using WAP.”); *Michalson* ¶185.

A POSITA would have had a reasonable expectation of success in implementing *Walker*’s mobile device to transmit the recorded video, sound, and location data using MMS because prior art describing very similar devices discloses

using MMS for that same purpose. *Michalson* ¶186 (discussing, e.g., *Wood* ¶[0036], *Kumar* ¶¶[0001], [0012]).

Accordingly, *Walker* discloses or suggests a mobile device with a transmitting unit, adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location via MMS (“via text message”), along with specific information including owner identification information. *Michalson* ¶187.

d. 15[d] & 15[e]

Walker in combination with *Wood* discloses or suggests 15[d] and 15[e]. *Michalson* ¶¶188-195.

(i) “a panic button ... wherein the panic button is activated by a button sequence”

Walker discloses an “eyewitness button 12” that, when pressed once (e.g., during an attack), initiates various operations related to collecting and transmitting information about the attack. *Walker* ¶¶[0092]-[0109]; *Michalson* ¶188. *Walker*’s disclosure related to eyewitness button 12 is consistent with how the ’404 patent describes a panic button, as described in VIII.A.1.e(i). As an initial matter, it is worth noting that, unlike limitations 9[e] and 13[e], limitation 15[e] does not require that the panic button itself be pressed. Claim 15 merely requires that the panic button is activated by “a button sequence” and does not require that the button sequence is

input on the mobile device itself or otherwise exclude a “button sequence” that is input on a remote device. Nor would a POSITA have understood the specification or prosecution history to require a narrower interpretation. *Michalson* ¶190.

Walker also discloses that “the user of the handheld device may activate or deactivate the eyewitness button 12 of the device and other device functionality remotely by dialling [*sic*] a telephone number related to the handheld device from another handheld device ... and entering a code known only to the user.” *Walker* ¶[0130]. A POSITA would have understood that inputting a telephone number and/or a code comprises inputting a button sequence because they both encompass inputting a sequence of buttons on a device. *Michalson* ¶192. This is consistent with how the ’404 patent describes this feature. ‘404pat., 7:16-21 (“For example, a panic button can trigger the image/audio data and location information being obtained. ... These can be triggered, by a panic button or buttons or button sequence.”); *Michalson* ¶193.

Accordingly, *Walker* discloses or suggests a mobile device with an eyewitness button 12 (“a panic button”) that the user may activate by entering a telephone number and/or a code (“wherein the panic button is activated by a button sequence”). *Michalson* ¶194.

(ii) A panic button “adapted to activate the transmitting unit when activated”

As explained in §VIII.A.1.e(ii), *Walker*’s disclosure is also consistent with how the ’404 patent describes “activating” the transmitting unit to perform a function. Accordingly, *Walker* discloses or suggests that the eyewitness button 12 (“panic button”) triggers the device to obtain and transmit the data (“adapted to activate the transmitting unit when activated”). *Michalson* ¶195.

D. Ground 3A: *Zellner* in View of *Kim* Renders Obvious Claims 9-14

As a threshold matter, for purposes of the following discussion, Petitioners rely on *Zellner*’s disclosure of aspects of the “IP device 20” described and illustrated with reference to Figures 3-6. Figure 3 is described as a schematic setup whereby an “IP device 20” sends emergency help request messages. *Zellner*, 5:16-19. Figures 4 and 5 further detail the IP device 20 (i.e., the IP device 20 illustrated in Figure 3). *Id.*, 6:55-57, 7:65-67. *Zellner* explains that Figure 5 is identical to Figure 4 except for the addition of a digital camera. *Id.*, 8:28-29. And *Zellner* describes Figure 6 as showing the “circuit blocks within the housing 26” of Figure 4 (*id.*, 7:10-12) and that it also includes the digital camera of the embodiment of Figure 5 (*id.*, 13:9-13). Thus, a POSITA would have understood *Zellner* to expressly disclose combining its description of IP device 20 of Figures 3-6 together. *Michalson* ¶196.

1. Claim 9

a. 9[pre]

To the extent the preamble is limiting, *Zellner* discloses or suggests this feature. *Michalson* ¶¶197-199. For example, *Zellner* discloses an “IP device 20” implemented as a “portable or wearable unit,” e.g., a cellular telephone, hand-held computing device, or PalmPilot. *Zellner*, 5:65-6:12, 6:55-58, 7:6-9, 11:38-44. Accordingly, *Zellner* discloses or suggests a portable or wearable unit (“a mobile device”). *Michalson* ¶199.

b. 9[a]

Zellner discloses or suggests this feature. *Michalson* ¶¶200-205. For example, *Zellner* discloses that the portable device includes a “built-in digital camera” or “image capture device” to take “snapshots” or “motion pictures.” *Zellner*, 7:65-8:14; FIG. 6. *Zellner* also discloses video conferencing and transmitting the user’s voice and audio files to an emergency services center (ESC). *Id.*, 3:21-23, 6:46-54, 9:22-23. A POSITA would have understood “snapshots” or “motion pictures” to constitute “image data” and that the user’s voice and audio files comprise “audio data.” *Michalson* ¶¶203-204. Accordingly, *Zellner* discloses or suggests a portable device with a camera (“camera unit”) that captures snapshots or motion pictures and has video conferencing capabilities (“adapted to obtain at least one of image data and audio data.”). *Michalson* ¶205.

c. 9[b]

Zellner discloses or suggests this feature. *Michalson* ¶¶206-211. For example, *Zellner* discloses implementing the portable device with a “user location identifier 59” that includes “a GPS (Global Positioning System) receiver 60 and a GPS receiver antenna 62.” *Zellner*, 13:17-23; *see also id.*, 3:34-38, FIG. 6. The GPS receiver antenna receives “location signals” and transfers those signals to the GPS receiver 60 to identify the current location of the device, and the user location identifier supplies the PCU 52 with “location information.” *Zellner*, 14:14-38. This disclosure is consistent with the ’404 patent’s description of this feature, as discussed in §VIII.A.1.c. *Michalson* ¶209. A POSITA would have understood that the “location signals” and the “location information” constitute “location data.” *Michalson* ¶210.

Accordingly, *Zellner* discloses or suggests a portable device with a user location identifier (“location unit”) that is used to identify the location of the device (“adapted to obtain the location data.”). *Id.* ¶211.

d. 9[c]

Zellner discloses or suggests this feature. *Michalson* ¶¶212-237. For example, *Zellner* discloses transmitting data to an emergency services center (“ESC”) via the Internet through various transmission technologies. *Michalson* ¶¶200-202. More particularly, the portable device uses a “wireless data communication module” for

communication over a cellular network (*id.*, 15:19-22, 14:39-15:9), or communicates wirelessly with a base unit that is physically connected to a wireline carrier network 14 (e.g., a PSTN) (*id.*, 6:63-7:2); and uses the TCP/IP protocol (*id.*, 3:21-23, 8:15-17, 9:17-21, 9:39-44, 19:29-34, claim 1, claim 11), and email or instant messaging (*id.*, 6:33-54, 10:3-11, 17:27-44); *Michalson* ¶¶213-215. *Zellner*'s disclosures are consistent with how the '404 patent describes a "transmitting unit," as described in §VIII.A.1.d. *Michalson* ¶216. Thus, a POSITA would have understood *Zellner* to disclose or suggest a "transmitting unit." *Michalson* ¶¶216-218.

Zellner also discloses that the device transmits various data including image, audio, and location data. *Id.*, 8:15-17 (transmitting images); 7:46-55, 3:21-23, 9:3-44 (transmitting the user's voice and audio recordings); 14:25-36, 3:34-39, claim 3 (transmitting user location); *Michalson* ¶219.

Zellner discloses that the image, audio, and location data is transmitted to an ESC for the purpose of requesting help. *See, e.g., Zellner*, Abstract, 19:27-34; *Michalson* ¶220. This is consistent with how the '404 patent describes "emergency information," as described in §VIII.A.1.d. Thus, a POSITA would have understood *Zellner* to disclose or suggest that the portable device transmitting unit is "adapted to transmit as emergency information the image data, the audio data, and the location data." *Michalson* ¶¶221-222.

Zellner also discloses transmitting personal information about the user such as a name or address, which can be recorded in text or audio. *Id.*, 3:14-21, 9:27-44, 10:8-30, 10:59-11:2, 11:7-19, 11:64-12:15; *Michalson* ¶223. A POSITA would have understood that the user of the device is, at least sometimes, the owner of the device. *Michalson* ¶224. This is sufficient to meet the claims. *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1326 (Fed. Cir. 2003) (“a prior art product that sometimes, but not always, embodies a claimed method nonetheless teaches that aspect of the invention.”); *see also Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1002 (Fed. Cir. 2016) (“combinations of prior art that sometimes meet the claim elements are sufficient to show obviousness”).

Zellner also discloses transmitting all four of the image, audio, location data, and personal information in response to the user pressing the panic button. *Michalson* ¶¶225-228. More particularly, *Zellner* discloses:

- transmitting “images captured by the digital camera 36” to the ESC “upon activation of the panic button.” *Id.*, 8:15-17;
- that “after ... pressing the panic button,” the user may speak into the device and the portable IP device transmits the user’s voice to the ESC. *Id.*, 7:46-55; *see also id.*, 3:21-23, 9:3-44;
- transmitting the location of the user “activating [the] panic button” to the ESC along with the emergency request message. *Id.*, 14:25-36; *see also id.*, 3:34-

39, claim 3 (“wherein the user location identifier is configured to ascertain a location of the user activating said panic button”); and

- transmitting personal information about the user such as a name or address upon activation of the panic button. *Id.*, 3:14-21, 9:27-44, 10:8-30, 10:59-11:2, 11:7-19, 11:64-12:15.

Therefore, a POSITA would have understood *Zellner* to disclose or suggest transmitting all four items in response to the user pressing the panic button. *Michalson* ¶229. This is consistent with how the ’404 patent describes transmitting emergency information “along with” owner identification information, as described in §VIII.A.1.d. Therefore, a POSITA would have understood *Zellner* to disclose or suggest transmitting the image, audio, and location data “along with” the personal information. *Id.*

If PO argues or the Board finds that *Zellner* does not disclose or suggest transmitting the image, audio, and location data “along with” the personal information, then, at a minimum, it would have been obvious to modify *Zellner* to do so. *Michalson* ¶¶230-236. First, it would not be inconsistent with *Zellner*’s disclosure or otherwise require a redesign of *Zellner*’s operating principles because *Zellner* already discloses that each item may be transmitted, and there is no suggestion that the portable device can transmit only one item to the exclusion of another. *Michalson* ¶231.

In addition, *Zellner* emphasizes a need for simple operation and efficient communication in emergency situations. *See, e.g., Zellner* at 3:34-45, 4:38-46, 7:42-45; *Michalson* ¶232. A POSITA would have understood that transmitting all four items in response to pressing the panic button would have advanced *Zellner*'s objective to simply and efficiently communicate the emergency information to the ESC personnel and better facilitate the emergency response by providing all available information. *Michalson* ¶¶233-235 (discussing, e.g., *Kumar* ¶¶[0039], [0040], [0053], [0054]). A POSITA would have had a reasonable expectation of success in making the modification because a POSITA would have known how to configure the device to transmit all of the image, audio, location, and personal information. Indeed, in the same field of endeavor, transmitting all four items of information from a portable device to the police was considered “obvious” by the early 1990s. *Michalson* ¶236 (discussing, e.g., *Coles* at 2:18-29, 2:63-3:3).

Accordingly, *Zellner* discloses or suggests a portable device with various transmission technologies (a “transmitting unit”) that in response to the user pressing the panic button transmits images, the user’s voice and audio recordings, and location information for the purpose of seeking emergency help (“adapted to transmit as emergency information the image data, the audio data, and the location data”) in addition to personal information of the user (“along with specific information including owner identification information”). *Michalson* ¶237.

e. 9[d] & 9[e]

Zellner in combination with *Kim* discloses or suggests 9[d] and 9[e]. *Michalson* ¶¶238-261.

- (i) “a panic button ... wherein the panic button is activated by a series of depressings of the panic button”**

Zellner in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶238-252. *Zellner* discloses that the portable device includes a “panic button.” *Zellner*, 6:55-57, 19:27-29, FIG. 4. *Zellner*’s description of its “panic button” is consistent with how the ’404 patent describes a panic button, as described in §VIII.A.1.e(i). Moreover, *Zellner* does not ascribe any non-panic-related functions to the panic button. *Michalson*, ¶240. Accordingly, a POSITA would have understood *Zellner*’s panic button to be a “panic button.” *Id.* ¶¶239-240. *Zellner* further discloses that the user “may need to push the panic button 24 only once.” *Zellner*, 2:66-3:1, 3:24-33, 7:28-30; *Michalson* ¶241.

By the 2005 timeframe, a POSITA would have been aware of the need to implement techniques to reduce the risk of false activation in panic button devices like *Zellner*’s. *Michalson* ¶242. Indeed, *Zellner* recognizes the need to avoid false activation (*Zellner*, 13:40-42), but does not expressly disclose a technique to minimize accidental activation when using the panic button. A POSITA would have understood, however, that implementing a technique to minimize accidental

activation of a panic button is particularly important in portable or wearable form factors like those proposed by *Zellner*. *Michalson* ¶244. That is because the risk of inadvertent presses would be expected to be higher in a wearable form factor, as such devices are more prone to being fumbled or, for example, activated by clutter in a pocket or purse. *Michalson* ¶244.

As detailed in §VIII.A.1.e(i), *Kim*, in a device similar to *Zellner*'s and the '404 patent, discloses an emergency mode that may be executed if the emergency key button 32 is manipulated a plurality of times, e.g., three times, within a set period of time. A POSITA would have understood that pressing the panic button comprises activating the panic button. *Michalson* ¶229. This is consistent with how the '404 patent describes "activating" the panic button, as detailed in §VIII.A.1.e(i). *Kim*'s description of manipulating the emergency key button a plurality of times (e.g., three times) is consistent with how the '404 patent describes that the panic button may be activated by a "series" of depressions. *See* §VIII.A.1.e(i).

As discussed in §VIII.A.1.e(i), a POSITA would have understood that *Kim*'s technique of requiring the user to manipulate or press the emergency key button a plurality of times (e.g., three times) was a known way to design a panic button to reduce the risk of accidental or false activation. *Michalson* ¶245. Thus, a POSITA would have been motivated to combine *Zellner* and *Kim* and would have considered the combination to amount to the use of known technique (*Kim*'s technique of

reducing accidental activation by requiring that the key be pressed a plurality of times (e.g., three times)) to improve similar devices (*Zellner*'s device having a panic button) in the same way (to reduce the risk of false activation). *Michalson* ¶246. A POSITA also would have considered the combination to amount to applying a known technique (*Kim*'s technique of reducing accidental activation by requiring that the key be pressed a plurality of times (e.g., three times)) to a known device (*Zellner*'s device having a panic button) ready for improvement to yield predictable results (*Zellner*'s device that requires a plurality of button presses to activate, thus reducing the chances of accidental activation). *Michalson* ¶247.

A POSITA also would have had a reasonable expectation of success in modifying *Zellner*'s panic button to require three presses, and the result would have been predictable. Indeed, the prior art has several examples of panic buttons that were similarly configured to be activated by a plurality of presses, which demonstrates that configuring *Zellner*'s panic button in that manner would have been within the skill of a POSITA. *Michalson* ¶¶248-251 (discussing, e.g., *Berger* ¶[0026], *Cobb*, 4:12-14, *Smith*, 9:1-8, *Wade* ¶[0317]).

Accordingly, the *Zellner-Kim* combination discloses or suggests a portable device with a panic button (“a panic button”) that, when pressed a plurality of times (e.g., three times), triggers the collection and transmission of emergency information

(“wherein the panic button is activated by a series of depressings of the panic button”). *Michalson* ¶252.

- (ii) **the panic button is “adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated”**

Zellner in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶253-261. *Zellner* discloses “activat[ing]” the camera when the panic button is pressed. *Zellner*, 8:3-6. *Zellner* also discloses a user location identifier that “ascertain[s] a location of the user activating said panic button.” *Id.*, claim 3, 3:34-39. And, as detailed in §VIII.D.1.d, *Zellner* discloses capturing and transmitting image, audio, and location data, along with personal information about the user in response to the user pressing the panic button. These disclosures are consistent with how the ’404 patent describes “activating” the components of the device, as described in §VIII.A.1.e(ii). *Michalson* ¶¶254-257.

As explained in §VIII.D.1.e(i), in the *Zellner-Kim* combination, *Zellner* is modified in view of *Kim* so that the same data and information is captured and transmitted when *Zellner*’s panic button is pressed a plurality of times (e.g., three times). *Michalson* ¶258.

Zellner also discloses that the information is transmitted to a specific location (i.e., the ESC) as opposed to merely broadcast, and that the user may program the portable IP device with information about the ESC, including the name, IP address, telephone number, email, and name of a contact person at the ESC. *Zellner*, 10:3-8. A POSITA would have understood such programming to comprise specifying the ESC to which the information is transmitted. *Michalson* ¶¶259-260. This is consistent with how the '404 patent describes transmitting to a “specified location,” as described in §VIII.A.1.e(ii). Thus, a POSITA would have understood *Zellner* to disclose sending the data and information to a specified location. *Id.*

Accordingly, the *Zellner-Kim* combination discloses or suggests a portable device with a panic button (“a panic button”) that activates the camera, obtains the location of the user, and transmits images, the user’s voice and an audio recording, location information, and user personal information to the programmed number/address for the emergency service center (“adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location”) in response to pressing the panic button a plurality of times (e.g., three times) (“when the panic button is activated”). *Michalson* ¶261.

2. Claim 10

Zellner in view of *Kim* discloses or suggests this feature. *Michalson* ¶¶262-268.

As explained in §VIII.D.1.d, if the portable device transmits data to the ESC via a wireline network, then the device communicates wirelessly with its corresponding base unit that is physically connected to a wireline carrier network 14 (e.g., a PSTN). *Zellner*, 6:63-7:2. The web browser module interacts with DTMF dialer 48 and NIU 38 to establish dial-up Internet access over a telephone wireline via a base unit. *Id.*, 11:62-12:15; *see also id.*, 5:48-64, 6:63-7:2, 8:53-58, 11:20-33; *Michalson* ¶¶264-266.

More particularly, in response to the panic button being pressed a plurality of times (e.g., three times), the web browser module 50 interacts with a processing unit to “activate the modem 54 in the NIU 38 to establish an electrical connection with a wireline carrier network ... to accomplish dialed Internet access.” *Id.*, 11:62-12:15. The web browser module provides a telephone number to the DTMF dialer for “dial-in Internet access”; “the telephone number may be for direct access to the ESC 12 or it may be for an ISP (Internet Service Provide[r]).” *Zellner*, 11:20-33. “The DTMF dialer 48, in turn, generates corresponding DTMF signals to be sent to the local telephone switching office in the carrier network 14 via the NIU 38,” and “[t]he

DTMF signals may be sent ... from a corresponding base unit ... for the IP device 20.” *Id.* 11:27-33.

In view of the above, a POSITA would have understood *Zellner* to disclose or suggest that the portable IP device may connect to the ESC or to the Internet via dial-up access when the panic button is pressed. *Michalson* ¶267. And because the ESC is an *emergency* services center and the purpose of the transmission is to request emergency help, a POSITA would have understood it is being dialed for “emergency purposes.” *Id.*

Accordingly, the *Zellner-Kim* combination discloses or suggests a portable device with a panic button that, when pressed a plurality of times (e.g., three times) (“wherein when the panic button is activated”), initiates a dial-up connection to the ESC or the Internet (“a public or private network for emergency purposes is dialed”). *Michalson* ¶268.

3. Claim 11

Zellner in view of *Kim* discloses or suggests this feature. *Michalson* ¶¶269-272. For example, *Zellner* discloses that the user can pre-record a digital audio file including personal information such as “the user’s name, address, any known medical condition, contact information in case of emergency, etc.” *Zellner*, 9:22-44. And “[u]pon activation of the panic button 24, the PCU 52 may retrieve the personal information from the memory 46 and may transmit it to the web browser module 50,

which, in turn, may immediately send the information to the ESC 12 via TCP/IP packets sent over the Internet 22.” *Id.* This is consistent with the ’404 patent’s disclosure related to this feature. ’404pat.,7:41-50 (“the present invention allows the user to pre-record a personal warning message” and transmit it “if the panic button is activated,” such as “[i]t is now Sunday, January 15th. I will be traveling to Sherborn, Mass. for a 2 pm meeting with Mr. John Smith who lives on Gray Road.”). In particular, a POSITA would have understood that *Zellner*’s disclosure of including, for example, “contact information in case of emergency” is analogous to the example provided in the ’404 patent because the example also provides information about who may be contacted in an emergency (i.e., “Mr. John Smith who lives on Gray Road.”). *Michalson* ¶¶271-272.

Accordingly, the *Zellner-Kim* combination discloses or suggests pre-recording a digital audio file including personal information such as “the user’s name, address, any known medical condition, contact information in case of emergency, etc.” (“wherein the specific information includes a pre-recorded emergency message.”). *Id.* ¶273.

4. Claim 12

Zellner in combination with *Kim* discloses or suggests this feature for the reasons discussed in §VIII.D.1.e(i). *Michalson* ¶274.

5. Claim 13

a. 13[pre], 13[a], 13[b], 13[e]

Zellner in combination with *Kim* discloses or suggests claim 13. *Michalson* ¶¶275-280. With respect to 13[pre], 13[a], 13[b], and 13[e], see sections VIII.D.1.a, VIII.D.1.b, VIII.D.1.c, and VIII.D.1.e(i), respectively. *Michalson* ¶ 275.

b. 13[c]

Limitation 13[c] is the same as 9[c] except that it further requires that the transmitting unit is adapted to transmit data and information to a “specified location.” *Michalson* ¶276. *Zellner* discloses 9[c] for the reasons explained in §VIII.D.1.d. As explained in §VIII.D.1.e, a POSITA would have understood *Zellner* to disclose or suggest transmitting the data to a programmed number/address for the emergency service center (i.e., a “specified location”). Thus, a POSITA would have also understood the web browser module that interacts with a wireless data communication module and/or other transmission technologies (“transmitting unit”) transmits the data to a specified location. *Michalson* ¶277.

Accordingly, the *Zellner-Kim* combination discloses or suggests a portable device with a web browser module that interacts with a wireless data communication module and/or other transmission technologies (“transmitting unit”) that in response to the user pressing the panic button transmits images, the user’s voice and audio recordings, and location information for the purpose of seeking emergency help to

the emergency service center (“adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location”), in addition to personal information of the user (“along with specific information including owner identification information”). *Id.* ¶278.

c. 13[d]

Limitation 13[d] is the same as limitation 9[d] except that it also requires the dialing function described in claim 10. *Zellner* discloses or suggests 9[d] as explained in §VIII.A.1.e. *Zellner* discloses or suggests claim 10 as explained in §VIII.D.2. *Michalson* ¶279.

Accordingly, the *Zellner-Kim* combination discloses or suggests a portable device with a panic button (“a panic button”) that activates the camera, obtains the location of the user, and transmits images, the user’s voice and an audio recording, location information, and personal information to the programmed number/address for the emergency service center (“performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location”) and initiates a dial-up connection to the emergency services center or the Internet (“and (2) dialing a public or private network for emergency purposes”). *Michalson* ¶280.

6. Claim 14

Zellner in combination with *Kim* discloses or suggests this claim. *Michalson* ¶¶281-283. As discussed in §VIII.D.1.e(i), the *Zellner-Kim* combination discloses or suggests a portable device with a panic button that is activated by being pressed a plurality of times, e.g., three times. For the same reasons discussed in VIII.A.5, this disclosure presumptively renders obvious “wherein a number of depressings of the panic button to activate the panic button is five.” Accordingly, the *Zellner-Kim* combination discloses or suggests that the panic button is pressed a plurality of times to activate the panic button (“wherein a number of depressings of the panic button to activate the panic button is five.”). *Id.* ¶283.

E. Ground 3B: *Zellner* in View of *Kim* and *Dixit* Renders Claim 14 Obvious

As explained in §VIII.D.6, the *Zellner-Kim* combination discloses or suggests claim 14. To the extent the Board disagrees, then claim 14 would have been obvious in view of *Zellner*, *Kim*, and *Dixit*. *Michalson* ¶¶284-285. In particular, for the same reasons discussed above in §VIII.B with respect to Ground 1B, it would have been obvious to modify the *Zellner-Kim* combination to implement *Dixit*’s technique of five button presses. *Id.*

F. Ground 4A: *Martin* in Combination with *Kim* Renders Obvious Claims 9, 10, 12-14

1. Claim 9

a. 9[pre]

To the extent the preamble is limiting, *Martin* discloses or suggests this feature. *Michalson* ¶¶286-288. For example, *Martin* discloses a “wireless device” implemented as a “wireless telephone,” “handheld computer,” or “personal digital assistant.” *Martin*, 2:1-4; *Michalson* ¶287. Accordingly, *Martin* discloses or suggests a wireless device implemented as a handheld computer or a personal digital assistant (“mobile device”). *Michalson* ¶288.

b. 9[a]

Martin discloses or suggests this feature. *Michalson* ¶¶289-293. For example, *Martin* discloses that the wireless device includes a “sensing device” implemented as “one or more of a microphone [and] a camera” that “can capture content” including “sound, still or moving images.” *Id.*, 3:36-42, 4:64-66, 5:38-47, FIG. 3; *Michalson* ¶¶290-291. This is consistent with how the ’404 patent describes this feature, as described in §VIII.A.1.b. A POSITA would have understood that still or moving images comprise “image data,” and that sound comprises “audio data.” *Michalson* ¶292.

Accordingly, *Martin* discloses or suggests a wireless device with a sensing device implemented as a camera and microphone (“camera unit”) that captures

sound and still or moving images (“adapted to obtain at least one of image data and audio data”). *Id.* ¶293.

c. 9[b]

Martin discloses or suggests this feature. *Michalson* ¶¶294-297. For example, *Martin* discloses that the wireless device includes location system 180, implemented as a “Global Positioning System (GPS) receiver” that generates “location information” such as “position coordinates of wireless device 100.” *Martin*, 3:59-62; *see also id.*, 5:4-14. *Martin*’s disclosure is consistent with the ’404 patent’s description of this feature, as described in §VIII.A.1.c. Thus, a POSITA would have understood the “location information” such as “position coordinates” to comprise “location data.” *Michalson* ¶296.

Accordingly, *Martin* discloses or suggests a wireless device with a GPS location system (“location unit”) that generates location information (for example, position coordinates) of a wireless device to pinpoint its location (“adapted to obtain location data”). *Michalson* ¶297.

d. 9[c]

Martin discloses or suggests this feature. *Michalson* ¶¶298-308. For example, *Martin* discloses establishing a wireless communication session with a called party and that the “wireless communication session can be established using a number of components of wireless device 100, including [digital signal processor] 140 and

antenna 150.” *Martin*, 5:1-3; *see also id.*, 3:48-54, Fig. 3 (step 310), 4:64-5:1; *Michalson* ¶299. *Martin*’s disclosures are consistent with how the ’404 patent describes a “transmitting unit,” as described in §VIII.A.1.d. Thus, a POSITA would have understood *Martin* to disclose or suggest a “transmitting unit.” *Michalson* ¶¶299-300.

Martin further discloses capturing content (such as sound and images) and transmitting it and location information during a communication session. *Id.*, Fig. 3 (steps 314, 322), 3:39-42, 5:10-14, 5:46-47; *Michalson* ¶301. As explained in sections VIII.F.1.b and VIII.F.1.c, a POSITA would have understood images, sound, and location information to comprise image data, audio data, and location data. *Michalson* ¶302.

Martin discloses that the captured content (such as images and sound) and location information relate to an “emergency situation” and may be used by the called party for “dispatching an emergency response team to the location.” *Martin*, Abstract, 5:58-62. *Martin*’s disclosure is consistent with the ’404 patent’s description of “emergency information,” as described in §VIII.A.1.d. Accordingly, a POSITA would have understood *Martin* to disclose or suggest transmitting the image, sound, and location information as “emergency information.” *Michalson* ¶304.

Martin also discloses a “user profile,” which includes “the name of the user of wireless device 100” and that it is sent “to establish the wireless communication session” or during the communication session. *Id.*, 4:36-42; *see also id.*, claim 43 (“The method of claim 42, further comprising the step of transmitting the user profile to the called party during the wireless communication session.”). A POSITA would have understood that the user of the device is, at least sometimes (if not most times), the owner of the device. *Michalson* ¶¶305-306. This is sufficient to meet the claim. *Hewlett-Packard*, 340 F.3d at 1326; *see also Unwired Planet*, 841 F.3d at 1002.

Martin’s disclosure of transmitting the image, audio, location data, and the user profile in connection with or during the communication session is consistent with how the ’404 patent describes transmitting emergency information “along with” owner identification information, as described in §VIII.A.1.d. Thus, a POSITA would have understood *Martin* to disclose or suggest transmitting the images, sound, and location data “along with” the user profile. *Michalson* ¶307.

Accordingly, *Martin* discloses or suggests a wireless device with a DSP, antenna, and wireless network telecommunications (“a transmitting unit”) to transmit captured content (such as images and sound) and location information relating to an emergency situation (“adapted to transmit as emergency information the image data, the audio data, and the location data”) and a user profile including

the user's name, all during a communication session ("along with specific information including owner identification information"). *Id.* ¶308.

e. 9[d] & 9[e]

Martin in combination with *Kim* discloses or suggests 9[d] and 9[e]. *Michalson* ¶¶309-332.

(i) "a panic button ... wherein the panic button is activated by a series of depressings of the panic button"

Martin in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶309-320. *Martin* discloses that the wireless device includes a "keyboard," and that when a "keystroke sequence" is entered using the keyboard, the wireless device establishes a communication session, and then captures and transmits various information. *Martin*, Abstract, 3:17-24; *Michalson* ¶310. *Martin* discloses various examples of such a "keystroke sequence." *Martin* discloses that pressing "one special key" may be the "keystroke sequence." *Id.*, 7:18-20. *Martin* also describes pressing a key, such as the "power-off" key, on the keyboard a number of times. *Martin*, 4:28-31; 6:30-34; 7:18-20; *see also id.*, claims 6, 41 ("wherein the keystroke sequence comprises ... pressing one key one or more times"). *Michalson* ¶¶311-312.

Martin's description of the "one special key" is consistent with how the '404 patent describes the "panic button" as a button with a dedicated panic function, as detailed in §A.1.e(i)VIII.A.1.e(i). *Michalson* ¶ 313. Moreover, *Martin* does not

ascribe any non-panic-related functions to the "special key" and, accordingly, a POSITA would therefore have understood it to be a dedicated button. *Id. Martin* does not expressly describe a technique for reducing accidental or false activations of the "special key." As explained in §VIII.D.1.e(i), however, by the 2005 timeframe, a POSITA would have been aware of the need to implement techniques to reduce the risk of false activation of panic buttons like *Martin*'s special key, and would have been aware of various techniques for doing so. *Michalson* ¶314.

As detailed in §VIII.A.1.e(i), *Kim*, which is similar to *Martin* and the '404 patent, discloses a mobile phone with a dedicated emergency key button 32 and discloses an emergency mode that may be executed if the "emergency key button 32 is manipulated a plurality of times (e.g., three times) within a set period of time." *Kim*, 13:1-6. As explained in §VIII.A.1.e(i), a POSITA would have understood that *Kim*'s technique of requiring a plurality of presses (e.g., three presses) served the purpose of minimizing false activations of the emergency key. Moreover, *Kim*'s disclosure related to emergency key button 32 is consistent with how the '404 patent describes a panic button that is activated by a series of presses. *Michalson* ¶¶314-316.

Thus, a POSITA would have been motivated to combine *Martin* and *Kim* and would have considered the combination to amount to the use of known technique (*Kim*'s technique of reducing accidental activation by requiring that the key be

pressed a plurality of time (e.g., three times)) to improve similar devices (*Martin's* device having a special key) in the same way (to reduce the risk of false activation). *Michalson* ¶317. A POSITA also would have considered the combination to amount to applying a known technique (*Kim's* technique of reducing accidental activation by requiring that the key be pressed a plurality of time (e.g., three times)) to a known device (*Martin's* device having a special key) ready for improvement to yield predictable results (*Martin's* device that requires a plurality of “special key” presses (e.g., three presses) to activate, thus reducing the chances of accidental activation). *Michalson* ¶318.

For the same reasons as discussed in §VIII.D.1.e(i) with respect to *Zellner*, a POSITA would have had a reasonable expectation of success in modifying *Martin's* special key to require three presses, and the result would have been predictable. Indeed, *Martin* already discloses that its device is capable of initiating the communication session and transmitting data in response to a key being pressed one or more times. *Michalson* ¶319.

Moreover, even though *Martin* discloses that the keystroke sequence may be any key pressed one or more times (e.g., the power-off key), a POSITA would have understood that using a dedicated button like *Martin's* special key that required being pressed a plurality of times was advantageous over using any key for the same reasons discussed in §VIII.A.1.e(i). *Michalson* ¶320.

Accordingly, the *Martin-Kim* combination discloses or suggests a wireless device with a special key (“panic button”) that, when pressed a plurality of times (e.g., three times) activates the special key to trigger establishing a wireless communication session, and capturing, generating, and transmitting data (“wherein the panic button is activated by a series of depressings of the panic button”). *Michalson* ¶321.

- (ii) **the panic button is “adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated”**

Martin in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶322-331. *Martin* discloses that entering the keystroke sequence with a keyboard key triggers the device to perform various tasks. With reference to the exemplary method in Figure 3, *Martin* discloses:

- Entering a keystroke sequence at the wireless device to establish a wireless communication session with the called party. *Id.*, 4:46-53, 4:64-5:3, Fig. 3 (steps 306, 310);
- Generating and providing location information of the wireless device to the called party. *Id.*, 5:4-14, Fig. 3 (steps 312, 314); and

- Capturing content (such as images and sound) and transmitting that content to the called party. *Id.*, 5:39-47, Fig. 3 (steps 320, 322).

These disclosures are consistent with how the '404 patent describes “activating” the components of the device, as described in §VIII.A.1.e(ii). *Michalson* ¶¶322-325.

As explained in §VIII.F.1.e(i), in the *Martin-Kim* combination, *Martin*’s special key initiates a communication session and transmission of data when it is pressed a plurality of times (e.g., three times).

Martin further discloses that data from the mobile device is transmitted to a specified location as opposed to merely broadcast. *Martin* discloses defining or creating a relationship between keystroke sequence and a called party (i.e., the called number), for example, “911.” *Martin*, 2:23-27, 4:22-25, 4:45-50, Fig. 5 (step 502); *Michalson* ¶327. The called party may be a public safety answering point (PSAP), undercover law enforcement operation center, and/or other parties. *Martin*, 6:29-34, 6:43-46, 7:18-25. *Michalson* ¶328. More particularly, *Martin* discloses that to establish the communication session, the microprocessor, for example, “dials 911” when the keystroke sequence is entered. *Martin*, 6:43-46; *Michalson* ¶329. A POSITA would have understood that the step of defining or creating the relationship between the keystroke sequence and the called number to comprise the user or system designer specifying the location to which the various data would be transmitted. *Michalson* ¶330.

Accordingly, the *Martin-Kim* combination discloses or suggests a mobile device with a special key (“a panic button”) that triggers various operations, including capturing images and sound, generating location information, and establishing a communication session and transmitting the data and a user profile to a specified number (“adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location”) when the special key is pressed a plurality of times (e.g., three times) (“when the panic button is activated.”). *Michalson* ¶331.

2. Claim 10

Martin in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶332-337. As described in §VIII.F.1.e(ii), a POSITA would have understood the *Martin-Kim* combination to disclose or suggest that pressing the special key a plurality of times (e.g., three times) causes the device to establish a communication session. More particularly, *Martin* discloses that to establish the communication session, the microprocessor “dials 911” when the keystroke sequence is entered. *Martin*, 6:43-46; *Michalson* ¶333. *Martin* further discloses that party may be a PSAP, 911, an undercover law enforcement operation center, and/or other parties. *Martin*, 6:29-34, 6:43-46, 7:18-25; *Michalson* ¶334. A POSITA would have recognized these as public network emergency services entities because *Martin* discloses that a PSAP is a “Public Safety Answering Point” and calls routed to it are

governed by federal government Federal Communications Commission (FCC) telecommunications policies. *Id.*, 1:23-42 (emphasis added); *Michalson* ¶335. *Martin*’s disclosure is consistent with the ’404 patent’s description of this feature, as described in §VIII.A.2. *Michalson* ¶336.

Accordingly, the *Martin-Kim* combination discloses or suggests that when the special key is pressed a plurality of times (e.g., three times) (“wherein when the panic button is activated”), the microprocessor dials a called party, e.g., 911, a PSAP, or an undercover law enforcement center (“a public or private network for emergency purposes is dialed”). *Michalson* ¶337.

3. Claim 12

Martin in combination with *Kim* discloses or suggests this feature for the reasons discussed in §VIII.F.1.e(i). *Michalson* ¶338.

4. Claim 13

a. 13[pre], 13[a], 13[b], 13[e]

Martin in combination with *Kim* discloses or suggests claim 13. *Michalson* ¶¶339-344. With respect to 13[pre], 13[a], 13[b], and 13[e], see sections VIII.F.1.a, VIII.F.1.b, VIII.F.1.c, and VIII.F.1.e(i), respectively. *Michalson* ¶339.

b. 13[c]

Limitation 13[c] is the same as 9[c] except that it further requires that the transmitting unit is adapted to transmit data and information to a “specified

location.” *Michalson* ¶340. *Martin* discloses or suggests 9[c] for the reasons explained in §VIII.F.1.d. As explained in §VIII.F.1.e(ii), a POSITA would have understood *Martin* to disclose or suggest defining or creating the relationship between the keystroke sequence and the called number to comprise the user or system designer specifying the location to which the various data would be transmitted. Thus, a POSITA would have also understood that *Martin*’s DSP and antenna (“transmitting unit”) transmit the data to a specified location. *Michalson* ¶341.

Accordingly, the *Martin-Kim* combination discloses or suggests a wireless device using a DSP, antenna, and wireless network telecommunications (“a transmitting unit”) to transmit various data relating to an emergency situation including image, sound, and location information to a called party (“adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location”) in addition to a user profile (“along with specific information including owner identification information”). *Michalson* ¶342.

c. 13[d]

Limitation 13[d] is the same as limitation 9[d] except that it also requires the dialing function described in claim 10. The *Martin-Kim* combination discloses or suggests 9[d] as explained in §VIII.D.1.e. The *Martin-Kim* combination discloses or suggests claim 10 as explained in §VIII.F.2. *Michalson* ¶343.

Accordingly, the *Martin-Kim* combination discloses or suggests that when the special key is pressed a plurality of times (e.g., three times) (“when the panic button is activated”) it triggers various operations, including capturing images and sound, generating location information, and establishing a communication session and transmitting the data and a user profile to a specified number (“performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location”); and to cause the microprocessor to dial a called party, e.g., 911, a PSAP, or an undercover law enforcement center (“and (2) dialing a public or private network for emergency purposes”). *Michalson* ¶344.

5. Claim 14

Martin in combination with *Kim* discloses or suggests this feature. *Michalson* ¶¶345-348. As discussed above in §VIII.F.1.e(i), the *Martin-Kim* combination discloses or suggests a mobile device with a special key (“panic button”) that, when pressed a plurality of times (e.g., three times), triggers the collection and transmission of emergency information (“wherein the panic button is activated by a series of depressings of the panic button”). For the same reasons discussed in §VIII.A.5, this disclosure presumptively renders obvious “wherein a number of depressings of the panic button to activate the panic button is five.” *Michalson* ¶¶346-347. Accordingly, the *Martin-Kim* combination discloses or suggests that the

special key is pressed a plurality of times to activate the special key (“wherein a number of depressings of the panic button to activate the panic button is five.”). *Id.* ¶348.

G. Grounds 4B: *Martin* in view of *Kim* and *Dixit* renders claim 14 obvious

As explained in §VIII.F.5, the *Martin-Kim* combination discloses or suggests claim 14. To the extent the Board disagrees, then claim 14 would have been obvious in view of *Martin*, *Kim*, and *Dixit*. *Michalson* ¶¶349-350. In particular, for the same reasons discussed above in §VIII.B with respect to Ground 1B, it would have been obvious to modify the *Martin-Kim* combination to implement *Dixit*’s technique of five button presses.

IX. THE DISCRETIONARY FACTORS FAVOR INSTITUTING TRIAL

A. 35 U.S.C. §314(a)

PO may ask the Board to exercise its discretion to deny institution despite the strong invalidity showing on the merits. The Board should decline to do so because the weight of the factors articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, 6 (March 20, 2020) (precedential) favors institution.⁵

⁵ The *Fintiv* framework should not be followed because it is legally invalid as (1) exceeding the Director’s authority, (2) arbitrary and capricious, and (3) adopted

1. Stay

Factor 1 is neutral. Petitioners have not requested a stay but intend to do so. The PTAB has explained that it will not speculate on how any such motion would be resolved, before one is filed. *Google LLC v. Parus Holdings, Inc.*, IPR2020-00847, Paper 9 at 12 (PTAB Oct. 21, 2020). Additionally, the PTAB has explained that this factor is neutral where no such stay motion has yet been filed. *See, e.g., Hulu LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00298, Paper 11 at 10-11 (PTAB May 19, 2021).

2. Trial Date

The docket control order in the parallel litigation currently sets jury selection for March 3, 2025, about 16 months away. EX1035. Any comparison of a projected FWD date against the scheduled trial date is speculative. *See Dish Network v. Broadband iTV*, IPR2020-01280, Paper 17 at 16 (PTAB Feb. 4, 2021) (“We cannot ignore the fact that the currently scheduled trial date is more than nine months away and much can change during this time”). Setting that aside, as this Petition is filed in October 2023, a FWD would be expected by April or May 2025—one to two months after the currently scheduled trial date. Thus, this factor should be neutral or weigh at most minimally in favor of denial. *See Microsoft Corporation v. D3D*

without notice-and-comment rulemaking.

Technologies, Inc., IPR2021- 00703, Paper 10 at 12 (PTAB Oct. 12, 2021) (concluding that although the final written decision is projected to issue about a month after the trial date, *Fintiv* Factor 2 is neutral); *Protect Animals with Satellites v. OnPoint Sys., LLC*, IPR2021-01483, Paper 11 at 11-13, 17 (March 4, 2022). The Board has instituted with even more time between trial and FWD. *See NetNut Ltd. v. Bright Data Ltd.*, IPR2021-01492, Paper 12 at 9-16 (March 21, 2022) (instituting IPR without stipulation and copending trial date six months before FWD).

3. Diligence/Investment

Factor 3 weighs strongly against discretionary denial. No substantive orders have been issued by the court in the underlying litigation, and investment in the parallel litigation will have remained low at the time of institution. EX1035. Assuming that a Decision on Institution is issued by May 2024, much work in district court will remain. *Id.* The opening claim construction brief is currently due July 25, 2024, the *Markman* hearing is scheduled for September 5, 2024, and opening expert reports are due October 15, 2024. *Id.*

4. Overlap

Factor 4 weighs against discretionary denial. Petitioners challenge claims 9-15 in this Petition and claims 1-8, 12 and 14 in a co-pending petition filed on the same day, whereas PO has alleged infringement of only claims 9 and 12. EX1033.

Accordingly, a material number of the challenged claims will not be addressed by the district court.

Petitioners have stipulated that, unless the Board denies or later vacates institution of this Petition, Petitioners will not seek resolution of invalidity in the copending litigation based on the specific grounds asserted in this Petition or any grounds including *Walker*, *Kim*, *Dixit*, *Zellner*, or *Martin*. EX1036.

5. Parties

Petitioners and PO are also parties to the parallel litigation. When the Board's deadline for FWD is estimated to be close in time to the district court trial date and the parties are the same in both proceedings, *Fintiv* factor 5 typically weighs as neutral. *See, e.g., Apple Inc. v. Koss Corp.*, IPR2021-00255, Paper 22 at 19 (weighing factor 5 as neutral “[g]iven the current information concerning the relative timing of the proceedings,” where district court trial was set to begin two months before the FWD deadline).

6. Other considerations

Even if the *Fintiv* factors favor discretionary denial (which they do not), the merits are compelling here. As demonstrated throughout, there is a wealth of prior art that the Office did not consider during prosecution that discloses and/or renders obvious the alleged invention.

Petitioners therefore respectfully submit that the *Fintiv* factors favor institution and that discretionary denial of this Petition would be neither appropriate nor equitable.

B. 35 U.S.C. §325(d)

The Board should likewise not exercise its discretion under §325(d) to deny institution of Petitioner's petition. There are no references presented in the unpatentability grounds that were previously considered by the Office.

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

A. Real Parties-in-Interest

Petitioners identify themselves as the real parties-in-interest.

1. Related Matters

Samsung is concurrently filing a second IPR petition directed to claims 1-8 of the '404 patent (IPR2024-0114).

To the best of Petitioners' knowledge, the '404 patent has been involved in only the following district court litigation: *Fendgo, LLC v. Samsung Electronics Co., Ltd. et al.*, 2:23-cv-00221-JRG (E.D. Tex.), filed May 19, 2023. EX1034.

Attached to this petition as EX1032 is a chart identifying all patents/application that are in the same family as the '404 patent.

To the best of Petitioners' knowledge, the '404 patent has not been challenged in any other *inter partes* review or post-grant review prior to this proceeding.

B. Lead and Backup Counsel

Lead Counsel	Back-Up Counsel
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C. Service Information

Please address all correspondence to lead and back-up counsel at the addresses shown above. Petitioners consent to electronic service by email at the following addresses:

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D. Power of Attorney

A power of attorney is filed herewith according to 37 C.F.R. §42.10(b).

XI. FEES

Petitioners concurrently electronically submits the required fees for this Petition. The Board is authorized to charge Arnold & Porter Kaye Scholer LLP's deposit account, No. 50-2387, for any fee deficiency.

Date: November 1, 2023

Respectfully submitted,

/Ali R. Sharifahmadian/

Ali R. Sharifahmadian (Reg. No. 48,202)
Counsel for Petitioners

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that the foregoing Petition for *Inter Partes* Review contains 13,952 words, excluding those portions identified in 37 C.F.R. §42.24(a), as measured by the word-processing system used to prepare this paper.

/Ali R. Sharifahmadian/
Ali R. Sharifahmadian (Reg. No. 48,202)
Counsel for Petitioners

CERTIFICATE OF SERVICE

I certify that on November 1, 2023, I caused a true and correct copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 11,265,404 and supporting exhibits to be served via overnight delivery on the Patent Owner at the following correspondence address of record as listed on Patent Center:

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A courtesy copy was also sent via electronic mail to Patent Owner's litigation counsel listed below:

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