

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

SITNET, LLC,
Patent Owner

Case IPR2024-00529
U.S. Patent No. 8,332,454

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,332,454**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	MANDATORY NOTICES (37 C.F.R. § 42.8).....	2
III.	GROUND FOR STANDING (37 C.F.R. § 42.104(A)).....	4
IV.	IDENTIFICATION OF THE CHALLENGE (37 C.F.R. §42.104(B))	4
	A. Identification of Prior Art	4
	B. Grounds Summary	5
V.	THE '454 PATENT	5
	A. Overview of the '454 Patent	5
	B. Prosecution Summary	8
	C. Person of ordinary skill in the art	9
	D. Claim Construction	9
VI.	GROUND 1: CLAIMS 1-7, 10-17, 19, AND 20 WOULD HAVE BEEN OBVIOUS IN VIEW OF AMIDON.....	10
	A. Overview of Amidon	10
	B. Independent Claim 1	14
	1. [1.P]: A method of creating a projection of a situational network, the method comprising.....	14
	2. [1.1]: (a) creating, by an event node server, an event node in a multi-dimensional personal information network, the event node corresponding to a situation	15
	3. [1.2]: (b) forming a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network;	23
	4. [1.3]: (c) transmitting an invitation to establish a link with the event node server to the devices corresponding to each node in the projection formed in step (b).....	24
	5. [1.4]: (d) receiving a response from at least one of the devices from step (c) accepting the invitation to establish a link with the event node server.....	26

6.	[1.5]: (e) establishing a link with each device accepting the invitation.....	26
C.	Claim 2	29
D.	Claim 3	30
E.	Claim 4	31
F.	Claim 5	33
G.	Claim 6	33
H.	Claim 7	35
I.	Independent Claim 10	36
1.	[10.P] A method of creating a projection of a situational network, the method comprising:.....	36
2.	[10.1] (a) receiving, by a first device corresponding to a node in a multi-dimensional personal information network, an invitation to establish a link with an event node server in response to the first device being included in a projection of nodes of the multi-dimensional personal information network	36
3.	[10.2] (b) transmitting a response accepting the invitation to establish a link with the event node server;	37
4.	[10.3] (c) establishing a link with the event node server; and.....	37
5.	[10.4] (d) receiving information about the situation from the event node server.	37
J.	Claim 11	37
K.	Claim 12	38
L.	Claim 13	38
M.	Claim 14	39
N.	Claim 15	40
O.	Claim 16	41
P.	Claim 17	42
Q.	Claim 19	43
R.	Independent Claim 20	43

VII.	GROUND 2: CLAIMS 1-4, 6, 8-18, AND 20 WOULD HAVE BEEN OBVIOUS OVER WONG IN VIEW OF GOGIC.	45
A.	Overview of Wong.....	45
B.	Overview of Gogic.....	46
C.	A POSA Would have Found it Obvious to Combine Wong and Gogic	47
D.	Independent Claim 1	50
1.	[1.P]: A method of creating a projection of a situational network, the method comprising.....	50
2.	[1.1]: (a) creating, by an event node server, an event node in a multi-dimensional personal information network, the event node corresponding to a situation	51
3.	[1.2]: (b) forming a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network;	54
4.	[1.3]: (c) transmitting an invitation to establish a link with the event node server to the devices corresponding to each node in the projection formed in step (b).....	56
5.	[1.4]: (d) receiving a response from at least one of the devices from step (c) accepting the invitation to establish a link with the event node server.....	58
6.	[1.5]: (e) establishing a link with each device accepting the invitation.....	58
E.	Claim 2	59
F.	Claim 3	60
G.	Claim 4	61
H.	Claim 6	62
I.	Claim 8	63
J.	Claim 9	63
K.	Independent Claim 10	64
1.	[10.P] A method of creating a projection of a situational network, the method comprising:.....	64

2.	[10.1] (a) receiving, by a first device corresponding to a node in a multi-dimensional personal information network, an invitation to establish a link with an event node server in response to the first device being included in a projection of nodes of the multi-dimensional personal information network	64
3.	[10.2] (b) transmitting a response accepting the invitation to establish a link with the event node server;	64
4.	[10.3] (c) establishing a link with the event node server; and	65
5.	[10.4] (d) receiving information about the situation from the event node server.	65
L.	Claim 11	65
M.	Claim 12	66
N.	Claim 13	66
O.	Claim 14	66
P.	Claim 15	67
Q.	Claim 16	67
R.	Claim 17	68
S.	Claim 18	68
T.	Independent Claim 20	69
VIII.	DISCRETIONARY CONSIDERATIONS UNDER SECTIONS 314(A) AND 325(D) STRONGLY FAVOR INSTITUTION.....	71
A.	The <i>Advanced Bionics</i> two-part framework strongly favors institution.....	71
B.	The <i>Fintiv</i> factors strongly favor institution.	71
IX.	CONCLUSION	73

PETITIONER'S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 8,332,454 to Cona <i>et al.</i> (“’454 patent”).
1002	Prosecution History of U.S. Patent No. 8,332,454 (“’454 File History”).
1003	Declaration of Jeremy Cooperstock, Ph.D.
1004	<i>Curriculum Vitae</i> of Dr. Jeremy Cooperstock
1005	U.S. Patent No. 8,346,864 B1 to Amidon <i>et al.</i> (“Amidon”)
1006	U.S. Patent Application Publication No. 2008/0103784 A1 to Wong <i>et al.</i> (“Wong”)
1007	U.S. Patent No. 8,103,300 B2 to Gogic (“Gogic”)
1008	U.S. Patent No. 7,801,971 B1 to Amidon <i>et al.</i> (“Amidon-971”)
1009	Palen <i>et al.</i> , <i>Online Forums Supporting Grassroots Participation in Emergency Preparedness and Response</i> , Communications of the ACM, Vol. 50, No. 3 (March 2007)
1010	U.S. Patent No. 7,016,307 B2 to Vasudev <i>et al.</i> (“Vasudev”)
1011	U.S. Patent Application Publication No. 2006/0230053 A1 to Eldering (“Eldering”)
1012	Harghirian <i>et al.</i> , <i>Increasing Advertising Value of Mobile Marketing – An Empirical Study of Antecedents</i> , Proceedings of the 48th Hawaii Int’l Conf. on System Sciences, IEEE (2005).
1013	Boyd & Ellison, <i>Social Network Sites: Definition, History, and Scholarship</i> , Journal of Computer-Mediated Communication, 13 (2008) pp. 210-230.
1014	U.S. Patent No. 8,024,330 to Franco <i>et al.</i> (“Franco”)
1015	November 26, 2006 Wikipedia page “Social network” (from web.archive.org) (accessed January 24, 2024)
1016	Barry Wellman, <i>Network Analysis: Some Basic Principles</i> , Sociological Theory, Vol. 1 (1983) pp. 155-200 (“Wellman”)
1017	Civil Case Management Plan and Scheduling Order, 1:23-cv-06389 (S.D.N.Y.), Document 35 (10/20/2023)

Petitioner Meta Platforms, Inc. (“Petitioner”) petitions for *inter partes* review, seeking cancellation of claims 1-20 (“the challenged claims”) of U.S. Patent No 8,332,454 (“the ’454 patent”; EX1001), assigned to SitNet, LLC (“Patent Owner”).

I. INTRODUCTION

It has long been known to form ad-hoc communication groups based on an event or situation. Before the days of email, organizations would often use a so-called “phone tree” to inform members or employees about an event. For example, if a school district were to be closed for weather, the superintendent would call the principals, each principal would call teachers at their school, those teachers would call other teachers and/or staff, and so on down the tree until all school employees were informed of the weather closure.

The ’454 patent relates to nothing more than the creation of a similar ad-hoc communication group within a conventional social-network platform. The claimed “situational network” simply allows participants to interact and exchange information, via a computer network, about a “situation,” such as a social event, emergency, or weather phenomenon. The claimed “projection” is simply a subset of the nodes (i.e., users) of a social network, defined in the claims by “geographic location.” Nothing in the ’454 patent purports to have created any new computer architecture or social network structure. Rather, the claims utilize existing

computer technologies to implement the well-known concept of ad-hoc group communication about events.

As shown herein, both Amidon and the Wong-Gogic combination teach all elements of, and render obvious, independent claims 1, 10, and 20. Amidon further renders obvious dependent claims 2-7 and 11-17, and 19, and the Wong-Gogic combination renders obvious dependent claims 2-4, 6, 8, 9, and 11-18.

This Petition is supported by the declaration of Dr. Jeremy Cooperstock (EX1003), an expert in computer networking and telecommunications. Dr. Cooperstock's testimony confirms that all challenged claims are unpatentable. Accordingly, the Board should cancel all claims of the '454 patent.

II. MANDATORY NOTICES (37 C.F.R. § 42.8)

Real Party-in-Interest: The real party-in-interest is Meta Platforms, Inc.

Related Matters: The '454 patent is at issue in the following pending civil action: *SitNet LLC v. Meta Platforms, Inc.*, Case No. 1:23-cv-06389 (S.D.N.Y.), filed July 24, 2023.

The '454 patent claims the benefit of U.S. Provisional Application No. 60/887,843, filed February 2, 2007, and U.S. Patent Application No. 11/924,711, filed October 26, 2007 (now U.S. Patent No. 8,069,202). The following patents and pending applications claim the benefit of the '454 patent: U.S. Patent No. 9,143,535; U.S. Patent No. 9,877,345; U.S. Patent No. 10,117,290; U.S. Patent No.

10,375,759; U.S. Patent No. 10,524,307; U.S. Patent No. 10,517,141; U.S. Patent No. 10,973,081; U.S. Patent No. 11,470,682; U.S. Patent No. 11,310,865; and U.S. Application No. 17/902,427, filed September 2, 2022.

Petitioner is concurrently filing petitions for *inter partes* review of the following related U.S. patents, each of which is also at issue in the above-captioned district-court litigation proceeding:

- U.S. Patent No. 8,249,932 (IPR2024-00528; IPR2024-00612);
- U.S. Patent No. 9,877,345 (IPR2024-00530); and
- U.S. Patent No. 11,470,682 (IPR2024-00531).

Lead and Back-up Counsel: Under 37 C.F.R. §§ 42.8(b)(3) and 42.10(a), Petitioner appoints **Jonathan Tuminaro** (Reg. No. 61,327) as lead counsel, and **Michael D. Specht** (Reg. No. 54,463), **Jennifer Meyer Chagnon** (Reg. No. 55,440), and **David W. Haars** (Reg. No. 73,112), as back-up counsel, all at the address: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1101 K Street, NW, Washington, DC, 20005, phone (202) 371-2600, and facsimile (202) 371-2540.

Service Information: Petitioner consents to electronic service by email at: **jtuminar-PTAB@sternekessler.com**, **mspecht-PTAB@sternekessler.com**, **jchagnon-PTAB@sternekessler.com**, **dhaars-PTAB@sternekessler.com**, and **PTAB@sternekessler.com**.

III. GROUNDS FOR STANDING (37 C.F.R. § 42.104(A))

The undersigned and Petitioner certify that the '454 patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting *inter partes* review of any '454 patent claim on the grounds herein.

IV. IDENTIFICATION OF THE CHALLENGE (37 C.F.R. §42.104(B))

A. Identification of Prior Art

The '454 patent's earliest possible priority date is February 2, 2007. Without conceding that this is the correct priority date, all references relied upon herein are prior art as of February 2, 2007.

Amidon (EX1005) was filed on December 13, 2006 and issued on January 1, 2013. Amidon is prior art under at least 35 U.S.C. §102(e).

Wong (EX1006) was filed on October 25, 2006 and was published on May 1, 2008. Wong is prior art under at least 35 U.S.C. §102(e).

Gogic (EX1007) was filed April 4, 2006 and issued on January 24, 2012. Gogic is prior art under at least 35 U.S.C. §102(e).

B. Grounds Summary

Petitioner requests *inter partes* review based on the grounds summarized below.

Ground	35 U.S.C.	Claims	References
1	§ 103(a)	1-7, 10-17, 19, and 20	Amidon
2	§ 103(a)	1-4, 6, 8-18, and 20	Wong and Gogic

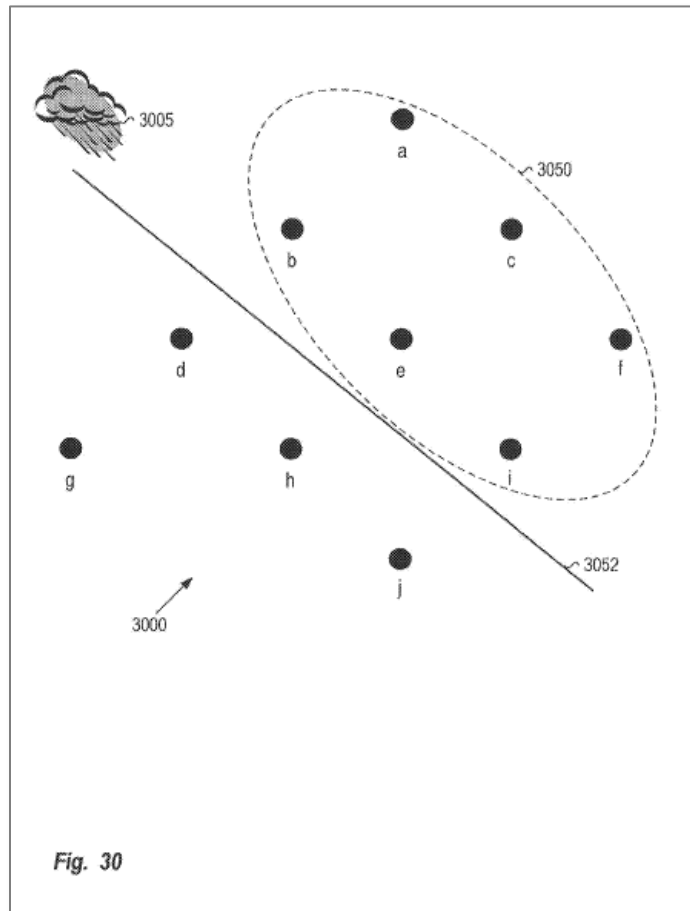
V. THE '454 PATENT

A. Overview of the '454 Patent

The '454 patent is directed to a “method of creating a projection of a situational network.” EX1001, Abstract. A “situational network allows the participants ... to interact and exchange information over connections to or through a computer network ... regarding the event or situation.” *Id.*, 3:64-67. The '454 patent describes a “situation” as broadly including social events, emergency events, weather phenomena, natural disasters, etc. *E.g., id.*, 4:48-57, 30:62-63. A “situation” also includes “weather related activities, such as skiing or surfing.” *Id.*, 4:48-57. A “projection,” also referred to as “a ‘projected’ view,” is described as “a subset of the nodes” of a social network, and can be determined based on a wide variety of criteria, including the geographic location of the user device, as recited in the '454 patent claims. *Id.*, 16:26-27, 21:65-22:50. In short, the '454 patent

relates simply to methods and systems that allow a set of participants in a social network to exchange information about an event or situation. EX1003, ¶32.

Figure 30, reproduced below, shows an example of a geographic projection 3050 of nodes of a situational network 3000. EX1001, 22:21-22.



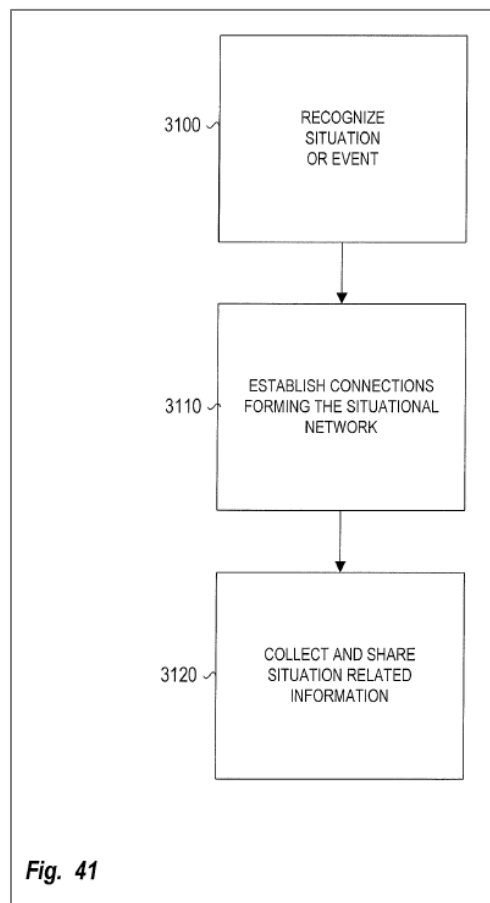
EX1001, FIG. 30.

Network 3000 includes the ten nodes labeled (a) through (j). EX1001, 22:22-23. In this example, the situation 3005 is a severe rain storm posing a flood threat to persons located on one side of a river (boundary 3052). *Id.*, 22:25-28.

Geographic projection 3050 includes a subset of the nodes, i.e., nodes (a), (b), (c),

(e), (f), and (i), which are included based on their location with respect to boundary 3052, i.e., those users threatened by flood waters. *Id.*, 22:22-30. EX1003, ¶¶33-34.

The '454 patent makes clear that the implementation of its methods is architecture agnostic. *See* EX1001, 6:28-29 (“A variety of different architectures may be used to connect the devices of participants in the situational network.”). Regardless of the architecture used, the same generic process is used to form the situational network. *Id.*, 7:15-20. This process is shown in Figure 41, reproduced below. EX1003, ¶35.



EX1001, FIG. 41.

The '454 patent also says that the situational network is implemented using known and conventional technologies. For example, users are connected via the situational network using known devices, such as cell phones, PDAs, personal computers, network servers, or “other devices generally known to those skilled in the art that enable connection to, from and through the computer network.”

EX1001, 4:25-30. Further, participants in the situational network are associated with “nodes,” which are simply the users’ point of connection to the network, and which “may be implemented using a wide variety of available hardware and technologies generally known in the art, such as software on a personal computer or a handheld PDA.” *Id.*, 14:59-15:9, 15:17-21. As the '454 patent also explains, a POSA would have understood that the nodes of the network “may be interconnected and may communicate with each other using a wide variety of available hardware and technologies generally known in the art, such as TCP/IP over an Ethernet or a wireless network.” *Id.*, 15:21-25. EX1003, ¶36.

B. Prosecution Summary

The '454 patent issued on December 11, 2012 from U.S. Patent Application No. 13/274,712 (“’712 application”), and claims a priority date of February 2, 2007. The '454 patent issued after a single office action in which the Examiner rejected all claims only under the judicially created doctrine of obviousness-type double patenting over the claims of other SitNet issued patents. EX1002, 0141-42.

Applicant filed Terminal Disclaimers. EX1002, 0159-63. In response, the Examiner issued a Notice of Allowance, but did not provide any comments on reasons for allowance. EX1002, 0176-80. The prosecution history includes no substantive discussion of the claims in view of prior art.

C. Person of ordinary skill in the art

A person of ordinary skill in the art (“POSA”) would have had a bachelor’s degree in Computer or Electrical Engineering or equivalent discipline, and approximately two years’ experience in telecommunications or computer networking. Additional education could substitute for professional experience, and significant work experience could substitute for formal education. EX1003, ¶¶45-46.

D. Claim Construction

In an *inter partes* review, claims are “construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. §42.100(b). All claim terms must be given their ordinary and customary meaning as understood by a POSA at the time of the invention, in light of the specification and the prosecution history of the patent.

Solely for the purposes of this Petition, Petitioner submits that no claim terms require construction and all claim terms should receive their plain and ordinary meaning in the context of the '454 patent.¹ *See* EX1003, ¶47.

VI. GROUND 1: CLAIMS 1-7, 10-17, 19, AND 20 WOULD HAVE BEEN OBVIOUS IN VIEW OF AMIDON.

Amidon renders obvious claims 1-7, 10-17, 19, and 20. EX1003, ¶63.

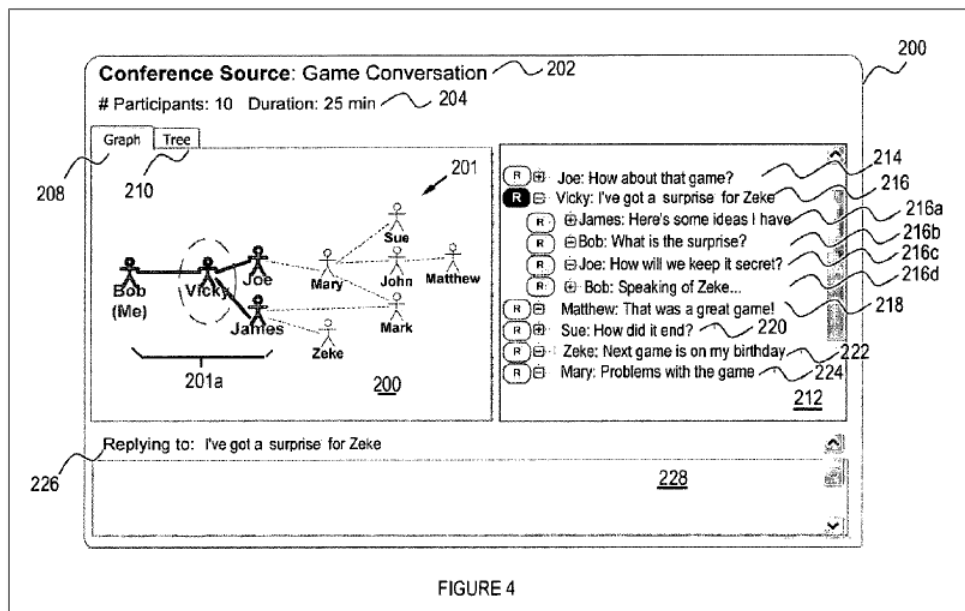
A. Overview of Amidon

Amidon is directed to “providing systems and methods for users to conduct online conferences based on underlying social network structures.” EX1005, 2:54-56. In other words, Amidon allows users of a social network to communicate and exchange information in a so-called “conference.” The list of participants in a social network conference may be specified based on various “parameters,” examples of which include degree of separation from a first user, geographic considerations, user parameters (e.g., identity, interests, demographic characteristics), or classification of user relationship. *See id.*, 2:57-60, 3:22-47, 4:5-9, 12:37-65. A user may initiate this discussion within the social network, and specify the parameters defining the list of participants in the conference. *Id.*, 10:11-24. Once a conference has been initiated, users participating in the conference can

¹ Petitioner reserves the right to challenge the validity of the claims under 35 U.S.C. §112 in other proceedings and forums.

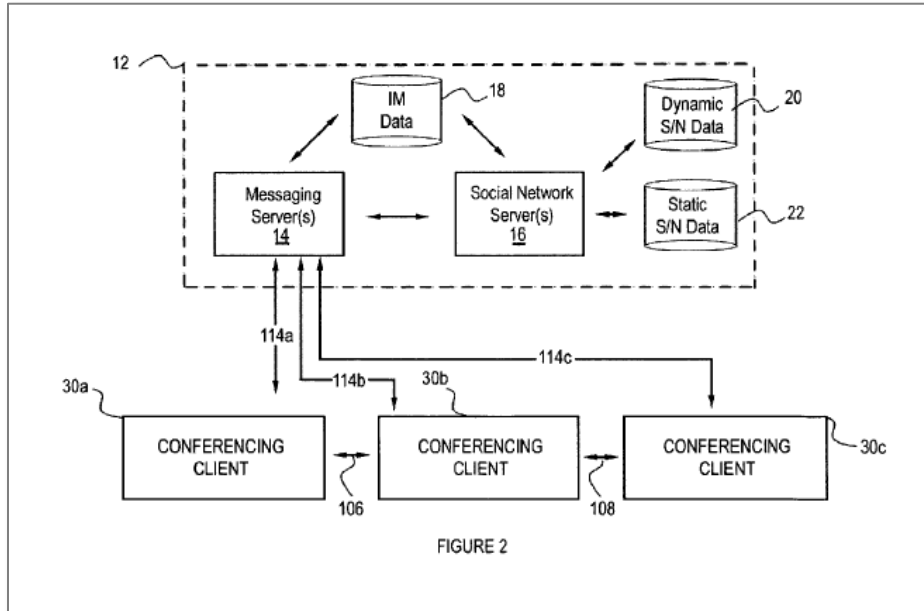
direct messages to particular users within the conference, selected based on the same and/or other parameters as those used to set up the conference. *Id.*, 2:60-63.

Figure 4 of Amidon “illustrates an exemplary user interface which may be used by one or more users participating in social network conferences.” EX1005, 16:65-67. A social network conference can be accessed, for example, in window 200 of a user interface such as that shown in Figure 4.



EX1005, FIG. 4, 16:65-18:50 (describing the features of window 200). The conference window 200 includes title bar 202, which provides a description of the conference (i.e., “Game Conversation”). EX1005, 17:2-7. Thread display area 212 includes “data (messages, content, etc.) exchanged amongst the members of conference 201.” *Id.*, 17:21-55.

Figure 2 illustrates an example of system 12 that supports social network based conferencing. *Id.*, 8:1-4.



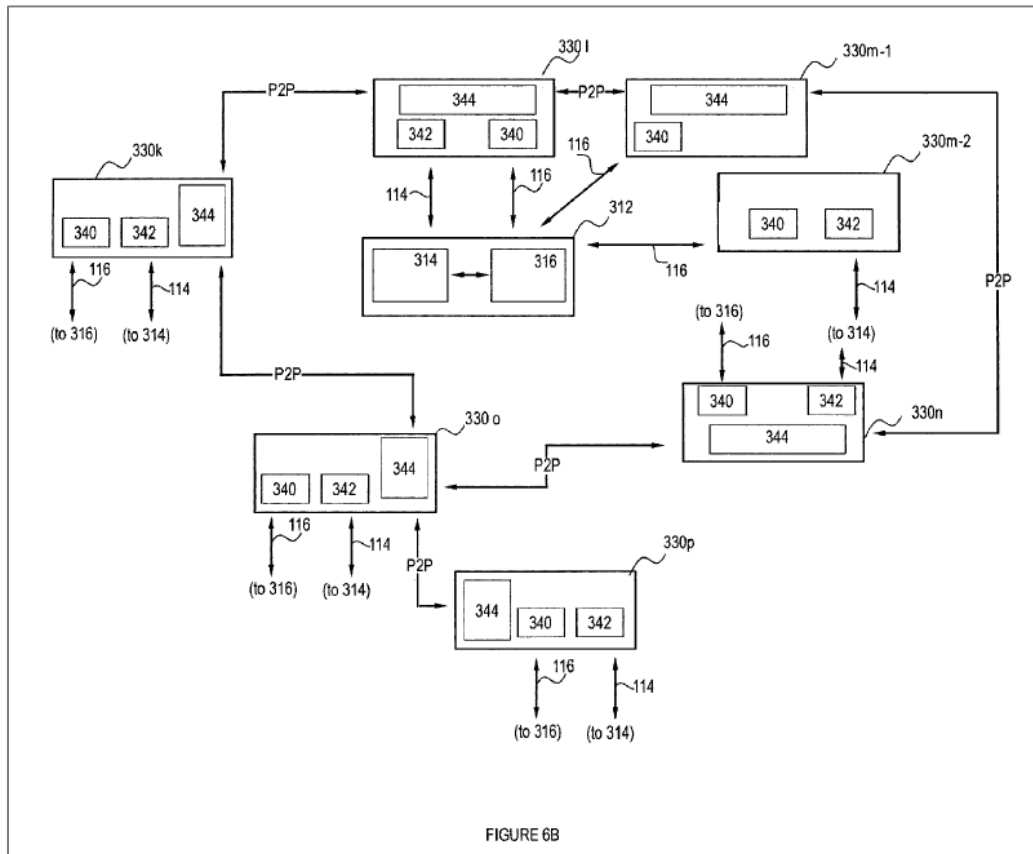
EX1005, FIG. 2.

System 12 includes messaging server 14 and social network server 16. EX1005, 8:3-5. Messaging server 14 facilitates sending messages between users. *Id.*, 8:44-9:8. Social network server 16 defines social network relationships and preferences, and stores data defining social networks, member data (e.g., profile information), relationships, etc. *Id.*, 9:9-38.

“Users may participate in social network conferences by way of any suitable communication technique(s),” including, for example, textual messages (such as instant message (IM)), audio messages (such as voice chat or telephone communication), video messages, or combinations thereof. *Id.*, 3:4-15. Each of

conferencing clients 30a, 30b, 30c comprises one or more computing devices that interface with the messaging server 14 of system 12. *Id.*, 8:12-35, FIG. 2.

Figure 6B illustrates an embodiment of a social network based conferencing system 312.



EX1005, FIG. 6B.

Computing devices 330 are respectively associated with each user in the social network 300. EX1005, 19:42-67. As in the system 12 of Figure 2, system 312 includes “one or more social network servers 316 and one or more messaging

servers 314” and “various data stores” (not shown). *Id.*, 20:1-7. *See also* EX1003, ¶¶48-56.

As explained below, Amidon renders obvious each element of the challenged claims.

B. Independent Claim 1

1. [1.P]: A method of creating a projection of a situational network, the method comprising

To the extent limiting, Amidon teaches the preamble. EX1003, ¶¶64-68. Amidon teaches “systems and methods for users to conduct online conferences based on underlying social network structures.” EX1005, 2:54-56. As described in the ’454 patent, a “situational network 3000 is created when an occurrence or expected occurrence of an event or situation 3005 causes connection, also referred to as links, to be established between, within or among a set of participants.” EX1001, 3:60-64, FIG. 1. The ’454 patent provides several examples of “situations,” including “a social event, such as a concert or festival.” *Id.*, 30:62-63; *see also id.*, 4:48-62. Claim 1 broadly recites “a situation” with no further limitation. In Amidon, a social network conference may be created automatically upon detecting various *situations*—e.g., users listening to the same music, a certain number of users in the social network are involved in a conversation (e.g., related to a game), or users sharing content on a particular topic. EX1005, 13:57-14:29. Amidon further teaches that “[u]sers may participate in social network conferences

by way of any suitable communication technique(s).” *Id.*, 3:4-5. Amidon’s teaching of a set of users communicating via a conference, which was created in response to a situation, corresponds to *a situational network*. See also Section VI.B.2 (element [1.1]) (regarding Amidon’s teachings of a *situation*).

Further, in Amidon, a “user can specify the nature and extent of a conference amongst members of a social network based on various parameters, including social network parameters.” *Id.*, 2:57-60. “Once a conference has been initiated, users participating in the conference can direct messages to desired users in the conference based on the same and/or other parameters.” *Id.*, 2:60-63. Conference metadata is used to manage a social network conference, and includes “data identifying one or more members of a social network and at least one distribution parameter.” *Id.*, 3:22-25. “Based on the social network data and the distribution parameter(s), multiple other users may be identified for inclusion in a social network conference” (i.e., *creating a projection*). *Id.*, 3:33-36. See also Section VI.B.3 (element [1.2]) (regarding Amidon’s teachings of a *forming a projection*).

Thus, Amidon renders obvious the preamble.

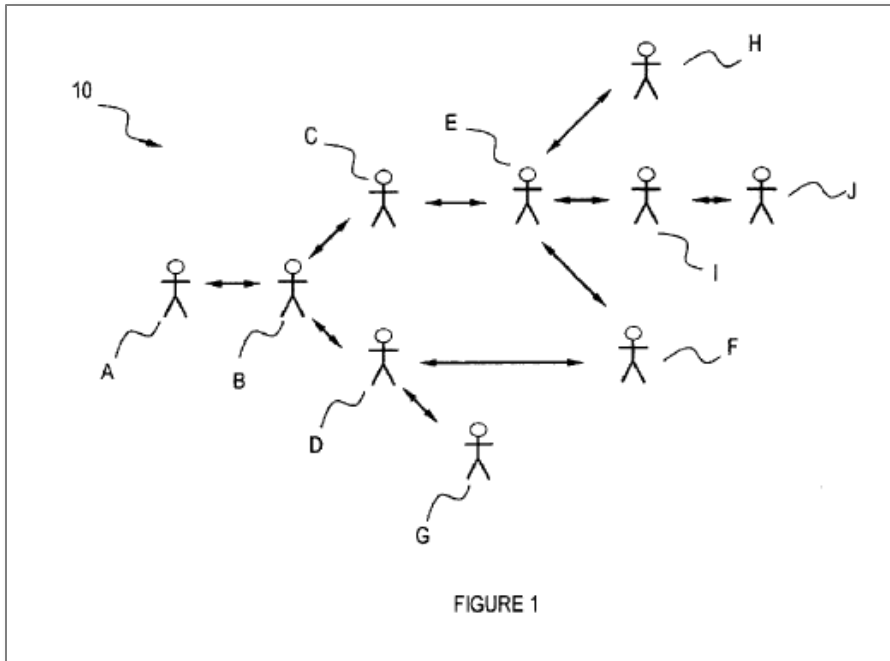
2. [1.1]: (a) creating, by an event node server, an event node in a multi-dimensional personal information network, the event node corresponding to a situation

Amidon teaches this element. EX1003, ¶¶69-86.

First, Amidon teaches a multi-dimensional personal information network.

The '454 patent uses the terms “multi-dimensional personal information network” and “N-dimensional social network (NDSN)” interchangeably. *See* EX1001, 5:61-65, 7:37-41, 14:28-31. According to the '454 patent, an NDSN “captures and manages multi-dimensional relationships between persons and other entities that are users of the network.” *Id.*, 14:28-31. “The NDSN uses multiple dimensions of association to characterize the relationships between users or members.” *Id.*, 14:36-37. For example, the NDSN uses multiple dimensions to characterize the relationship between two or more users, such as “friendship,” “family, professional connection, consumer (e.g., consumer-to-merchant) relationship and healthcare-relation (e.g., providers, insurers, etc.).” *Id.*, 14:36-43. In the '454 patent, “[n]odes may connect via different dimensions.” *Id.*, 14:64-65.

Amidon's social network 10 discloses a *multi-dimensional personal information network*.



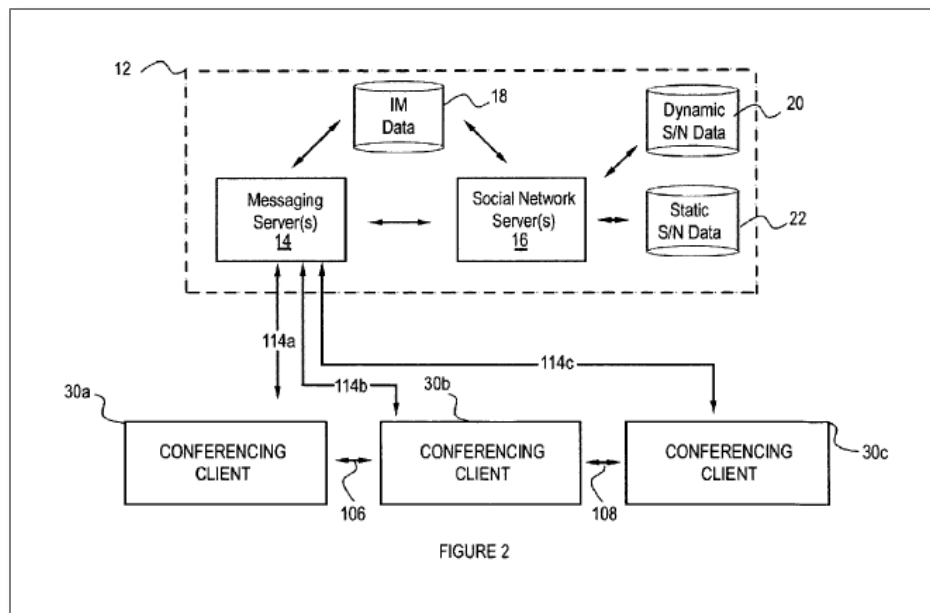
EX1005, FIG. 1.

Members of Amidon's social network may be "linked to one another through *one or more types of social connections*," including, for example, "common friendship, place or field of employment, place of education, place of residence, membership in a club or other group, or common hobbies or topical interests." *Id.*, 1:27-38.² In Figure 1, "links between users A, B, C, D, E, F, G, H, I, and J are shown by double-ended arrows." *Id.*, 6:60-63. Amidon further teaches that "one of skill in the art will recognize that social networks may be much more extensive than social network 10," and, for example, "links between friends (or other contacts) ... may be densely intertwined and overlap extensively." *Id.*, 7:38-

² Emphasis added throughout, unless otherwise indicated.

47. Like in the '454 patent, the relationships between members of Amidon's social network are characterized in multiple dimensions, i.e., friendship, place of employment, common hobbies, etc. Thus, Amidon's social network 10 is a *multi-dimensional personal information network*.

Amidon's social network 10 "may be used as the basis for one or more social network conferences." *Id.*, 6:58-60. Figure 2 illustrates a system 12 that supports social network based conferencing. *Id.*, 8:1-3.

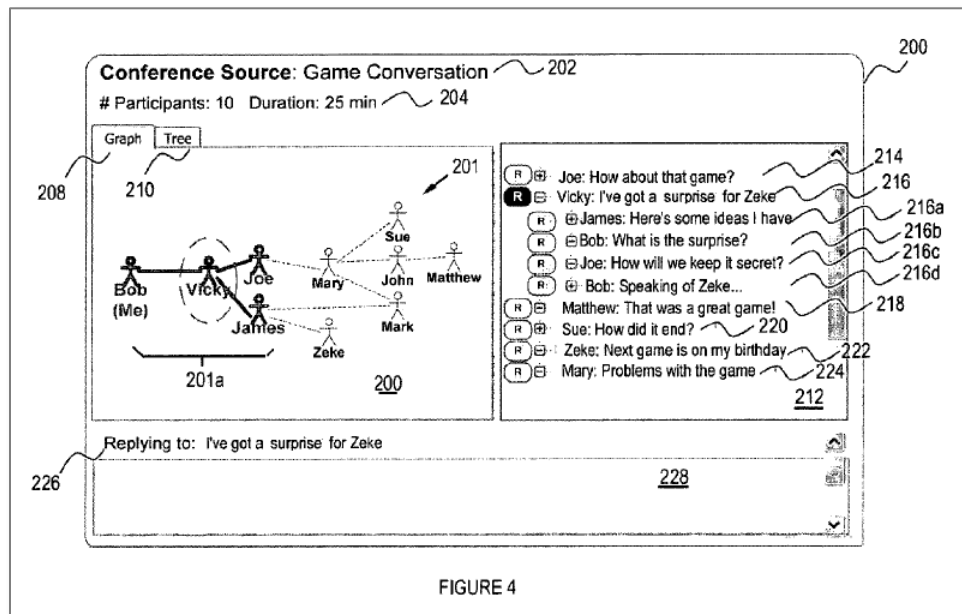


EX1005, FIG. 2.

System 12 includes messaging server 14 and social network server 16. EX1005, 8:3-5. Messaging server 14 facilitates sending messages between users. *Id.*, 8:44-9:8. Social network server 16 defines social network relationships and preferences, and stores data defining social networks, member data (e.g., profile

information), relationships, etc. *Id.*, 9:9-38. Each of conferencing clients 30a, 30b, 30c comprises one or more computing devices that interface with system 12. *Id.*, 8:12-35.

A social network conference can be accessed, for example, in window 200 of a user interface such as that shown in Amidon's Figure 4.



EX1005, FIG. 4, 16:65-18:50 (describing the features of window 200).

Second, Amidon teaches *creating, by an event node server, an event node*. Amidon's social network server 16 (i.e., *an event node server*) "uses the distribution parameters and other information to assemble a participant list for potential inclusion in the social network conference." *Id.*, 10:37-39, FIG. 2. "Data defining the social network conference, including the participant list, is then stored in computer-readable form. For example, data defining social network conferences

may be maintained in one or more additional databases accessible by social network conferencing system 12.” *Id.*, 10:40-44; *see also id.*, 3:36-39 (“Once the other users have been identified, the social network conference is tracked, including storing data defining the conference in at least one computer-readable medium.”). Amidon also teaches that each message in a conference may be tracked by a database record and/or that messages may be cached. *Id.*, 15:18-46.

Amidon’s social network conference (as defined by the stored data and accessible via window 200) teaches the claimed *event node*. EX1003, ¶77. “[C]onferencing system 12,” Amidon teaches, “may store data defining social network conferences in any suitable fashion and location(s).” EX1005, 15:6-10, FIG. 3. This is consistent with the ’454 patent’s description of a node as “provid[ing] an associated entity with the ability to store and manage [its] profile and relationships with other users of the [social network].” EX1001, 14:62-64. This also is consistent with the ordinary and customary meaning of node, wherein nodes may represent people, organizations, communities, locations, websites, or any other unit that is part of the network. EX1003, ¶78.

Amidon’s conferencing system 12 supports multiple conference formation options. EX1005, 13:34-35. For example, system 12 supports conference formation based on user preferences and past activity. *Id.*, 13:57-60. As another example, “a user may provide for the system to automatically form a conference including all

users currently listening to the same song, music by the same artist, music of the same genre, etc.” *Id.*, 13:65-14:3. “Other conferences may be formed based on network activity, such as sharing content of a particular data type (photos, movies, etc.) and/or content having similar metadata (sharing of particular music, songs, movies, etc.).” *Id.*, 14:3-7.

Further, “[s]ocial network server 16 [(i.e., the *event node server*)] may be configured to analyze data describing current messaging sessions or other activity, such as social network circuit activity, and periodically compare such data to conference formation parameters provided by one or more users.” *Id.*, 14:13-18; EX1003, ¶80. “For example, a user may indicate that the user wishes to automatically create a new conference any time the user is involved in a subset of a social network circuit related to a game when the subset includes three or more people. Social network server 16 can access circuit data and automatically form a conference including such users.” *Id.*, 14:22-27. In this example, a conference is automatically formed when a group of three or more users are in live communication (i.e., a conversation) about a game. EX1003, ¶¶80-81.

In another example, a first user identifies that they wish to create a conference including “only those users who are also sharing content on a particular topic (‘Vacation’).” EX1005, 21:18-26. When social network server 316 determines other users are sharing relevant content, the server provides a “filtered

view” of the network, which includes users that meet the first user’s criteria. *Id.*, 21:21-35. The first user may then invite users to join a conference and, pending acceptance, social network server 316 creates and tracks a conference including these users. *Id.*, 21:28-45.

Thus, Amidon teaches the social network conference (as defined by the stored data and accessible via window 200) (i.e., *the event node*) is *created by* the social network server (i.e., *event node server*).

Third, Amidon teaches the *event node correspond[s] to a situation*. The ’454 patent provides several examples of “situations,” including “a social event, such as a concert or festival.” EX1001, 30:62-63. Other examples include weather phenomenon, emergency situations, natural disasters, weather related activities (such as skiing or surfing), navigation and/or travel incidents and public health crises. EX1001, 4:48-57. Claim 1 broadly recites “a situation” with no further limitation.

In Amidon, a social network conference (i.e., *the event node*) is created by social network server 16 (i.e., *the event node server*) upon detecting various *situations*—e.g., users listening to the same music, a certain number of users in the social network are involved in a conversation (e.g., related to a game), or users sharing content on a particular topic. EX1005, 13:57-14:29. Thus, the social network conference (as defined by the stored data and accessible via window 200)

(i.e., *the event node*) corresponds to the situation. Further, a POSA would have understood that, regardless of the *situation* to which the event node corresponds, the same social network architecture would be used to implement the system and methods of the challenged claims. EX1003, ¶85.

Thus, Amidon renders obvious element [1.1].

3. [1.2]: (b) forming a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network;

Amidon teaches this element. EX1003, ¶¶87-90.

First, Amidon teaches *forming a projection of nodes of the situational network*. According to Amidon, conference metadata is used to manage a social network conference and includes “data identifying one or more members of a social network and at least one distribution parameter.” EX1005, 3:22-25. “Based on the social network data and the distribution parameter(s),” Amidon’s system identifies “multiple other users ... for inclusion in a social network conference” (i.e., *form[s] a projection of nodes of the situational network*). *Id.*, 3:33-36; *see also id.*, 10:37-39 (“Social network server 16 then uses the distribution parameters and other information to assemble a participant list for potential inclusion in the social network conference.”), 21:21-22 (“For each parameter set, application 340 renders a filtered view of the social network.”). This list of users for possible inclusion in the conference is the claimed *projection*. This is consistent with the

'454 patent's description of "a 'projected' view" as "a subset of the nodes" of the social network. EX1001, 16:26-27; *see also id.*, 21:65-22:1 (indicating that "a 'projected' view" is "also referred to as a projection").

Second, Amidon also discloses that "participation [in a social network conference] may be defined *geographically*, such as limiting a conference to users within a particular locale or within a certain distance from one another." EX1005, 4:6-9; *see also id.*, 12:37-59 (conference participation parameters may include geographical parameters). Amidon further recognizes that "*user devices* and/or the conferencing system *may support location-based services* such that the location of particular users can be determined." *Id.*, 12:59-61. "Based on the user location data, conference participation can be determined based on geographical parameters, such as users within a certain distance, users from a particular location, and so on." *Id.*, 12:62-65.

Thus, Amidon renders obvious element [1.2].

4. [1.3]: (c) transmitting an invitation to establish a link with the event node server to the devices corresponding to each node in the projection formed in step (b)

Amidon teaches this element. EX1003, ¶¶91-95.

First, Amidon teaches *transmitting an invitation ... to the devices corresponding to each node in the projection formed in step (b)*. Amidon discloses that invitations are transmitted to users to join a social network conference. In one

example, the social network server provides a conference participant list (i.e., *the projection*) to the messaging server, which in turn sends an invitation to the users on the list, via their respective computing devices 330, to join the conference. *See* EX1005, 21:3-8; *see also id.*, 19:54-67, FIG. 6B.³ In another example, a user sends a message to other users inviting them to join a conference.⁴ *See id.*, 21:18-38.

Amidon also teaches storing, as part of the data defining a social network conference, a record for each user indicating the status of that user with regard to the conference. *Id.*, 15:6-17. The “status indicators may include ‘active,’ ‘*invited* but inactive,’ and ‘*invited* but declined,’” *id.*, 15:15-17, further indicating that Amidon contemplates inviting users to join conferences.

Second, Amidon teaches the *invitation is to establish a link with the event node server*. Amidon teaches that, for a user to participate in a conference, a link

³ A POSA would have understood that the embodiments of Figures 2 and 6B of Amidon disclose similar features, and the teachings of one could be applied to the other with a reasonable expectation of success. EX1003, ¶56; *see also, e.g.*, EX1005, 20:1-7.

⁴ Claim 1 does not require the invitation to be transmitted in a particular way from a computer system, and does not foreclose the invitation transmission being initiated by a user.

116 (*a link*) is established between the user's client devices, e.g., device 330, and the social network server 316 (*the event node server*). EX1005, 20:1-7, 20:39-62, FIG. 6B. Thus, a POSA would have understood that in sending an invitation to participate in a conference, Amidon teaches sending an *invitation to establish a link with the event node server*. EX1003, ¶¶94. See also Section VI.B.6 (element [1.5]) (regarding Amidon's teachings of *establishing a link*).

Thus, Amidon renders obvious element [1.3].

5. [1.4]: (d) receiving a response from at least one of the devices from step (c) accepting the invitation to establish a link with the event node server

Amidon teaches this element. EX1003, ¶¶96-97.

Amidon discloses monitoring for responses to invitations:

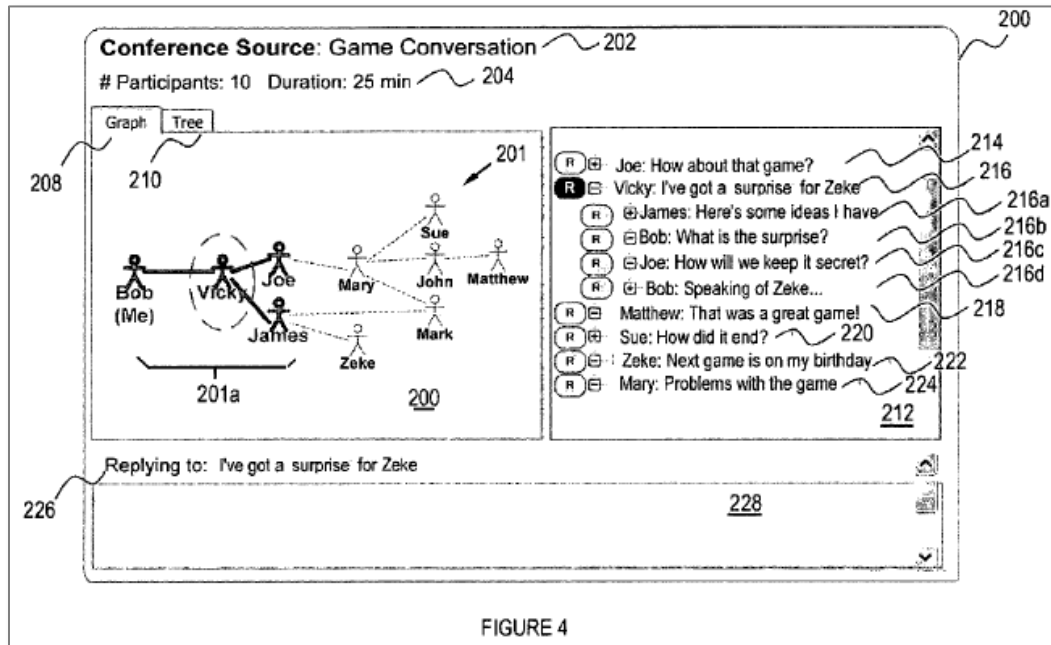
[T]he conferencing system provides feedback as to the conference initiation process. For instance, after inviting various members, [the user] may be presented with a pop-up window and/or other notification(s) of progress. The *window may indicate*, for example, which members have received invitations, which members are in the process of responding, and *the response(s) received*.

EX1005, 21:54-61. Thus, Amidon renders obvious element [1.4].

6. [1.5]: (e) establishing a link with each device accepting the invitation

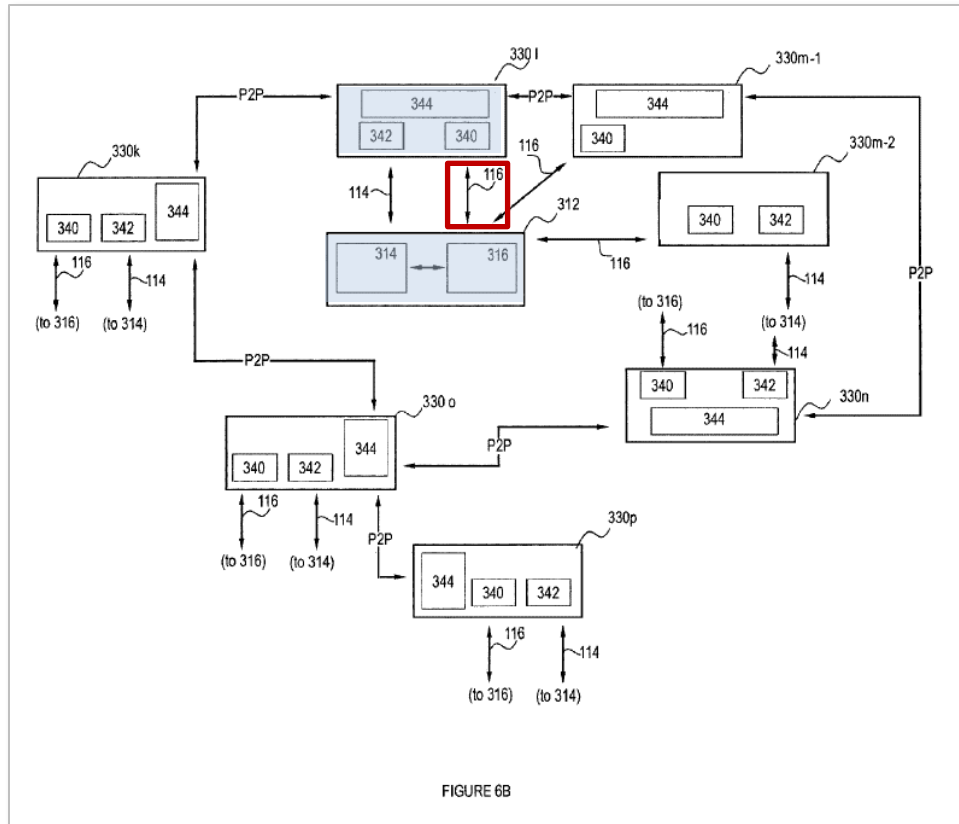
Amidon teaches this element. EX1003, ¶¶98-103.

Amidon teaches *establishing a link with each device accepting the invitation* because Amidon discloses that user devices can participate in a social network conference. For example, Amidon's Figure 4 illustrates an exemplary user interface showing one or more users participating in a social network conference.



EX1005, FIG. 4.

To participate in such a social network conference, Amidon teaches that a link 116 (*a link*) is established between the user's client devices, e.g., device 3301 (*devices accepting the invitation*), and the social network server 316 (*the event node server*), as illustrated in Figure 6B (reproduced below):



EX1005, FIG. 6B (annotated).

EX1003, ¶100; *see* EX1005, 20:1-7, 20:39-62; *see also id.*, 8:60-9:8 (clients may interface with multiple messaging servers, which in turn interface (directly or indirectly) with a social network server), 9:9-22 (clients may be in communication with a social network server). Amidon further describes that user devices may be linked to one or more social networking servers 316, and that social network server 316 both creates the conference and tracks the conference participation. EX1005, 20:39-43, 21:36-38, 21:62-63. Further, a POSA would have understood that, to the extent a particular user's device was not previously linked to the particular social network server that creates and tracks the conference to which it has been invited,

it would have been obvious that a new link would be established in order to facilitate participation in the conference. EX1003, ¶101.

Thus, Amidon renders obvious element [1.5].

C. Claim 2

Claim 2 depends from claim 1 and further recites: “*wherein the event node is created in response to identification of the situation by a situation authority.*”

Amidon teaches this claim. EX1003, ¶¶104-107.

Amidon discloses that users can identify parameters (i.e., *a situation*) for initiating possible conferences. EX1005, 21:18-61. In that instance, a social network conference and its corresponding database records defining the conference (i.e., *the event node*) are created in response to the user identifying the parameters.

Amidon also teaches that the parameters (i.e. *the situation*) are identified by a user (i.e., *a situation authority*) because the term “user” in Amidon “is meant to broadly include not only an individual, but also other entities, such as groups of individuals and organizations when treatable as a single unit.” *Id.*, 5:5-8. Amidon’s broad definition of a “user,” which encompasses organizations, teaches the claimed “*situation authority*,” which the ’454 patent says “include[s], *but [is] not limited to* news organizations, such as news agencies (e.g., CNN), weather agencies (e.g., The Weather Channel), traffic agencies (e.g., Traffic.com), emergency relief organizations (e.g., The American Red Cross), and government agencies (e.g.,

local fire departments, state Departments of Transportation, Federal Emergency Management Agency (FEMA)).” EX1001, 4:10-17.

Thus, Amidon renders obvious claim 2.

D. Claim 3

Claim 3 depends from claim 1 and further recites: “*(f) providing the projection formed in step (b) to each device corresponding to the nodes in the projection that has established a link with the event node server.*” Amidon teaches this claim. EX1003, ¶¶108-112.

As discussed for element [1.2], in Amidon, the *projection formed in step (b)* is the list of users for possible inclusion in the conference. As discussed for element [1.3], an invitation is sent to each device corresponding to nodes in the projection. And as discussed for element [1.4], at least one of these devices accepts the invitation.

A POSA would have understood that, in at least some instances, every device included in the projection accepts the invitation. EX1003, ¶110. In this case, the *projection formed in step (b)* and *each device ... that has established a link* correspond to the same subset of nodes in the social network. *Id.* As discussed below, Amidon teaches claim 3 at least in this instance.

Each device 330 (*each device ... that has established a link*) participates in the social network conference, for example, via a user interface such as that in

Amidon's Figure 4. The user interface of Figure 4 includes a display of social network conference group 201 in the form of a diagram of the users included in the conference. EX1005, 17:2-10. A POSA would have understood the social network conference group 201 is the same as the *projection [of nodes] formed in step (b)* when every user of the *projection* accepts the invitation to join the conference and is therefore part of the social network conference group 201. EX1003, ¶111. Thus, the diagram of users included in the conference (*the projection*) as shown in Figure 4 is *provided to each user participating in the conference (each device ... that has established a link)*.

Thus, Amidon renders obvious claim 3.

E. Claim 4

Claim 4 depends from claim 1 and further recites: “*(f) providing a first set of information about the situation to each device corresponding to the nodes in the projection that has established a link with the event node server.*” Amidon teaches this claim. EX1003, ¶¶113-117.

Amidon discloses sending messages about the situation to which the conference is related. As described with respect to Figure 4, thread 214 includes messages (i.e., *a first set of information*) and replies sent to each user in conference group 201 (i.e., *each device ... that has established a link with the event node server*). EX1005, 17:29-32, FIG. 4 (window 20 with conference thread display area

212); *see also id.*, 17:38 (“[T]hread 214 may be visible to the whole group”). In the embodiment of Amidon’s Figure 4 (where the situation corresponding to the conference is related to a game), users send messages about the game (i.e., *information about the situation*). *See id.*, 17:21-35. Amidon describes that “each thread compris[es] data (messages, content, etc.).” *Id.*, 17:22-26. At a minimum, it would have been obvious that the “messages” and “content” contained in thread 214 of Amidon would encompass *information* about the topic to which the conference is related (i.e., the *situation*). EX1003, ¶115. In any case, the specific content of information unrelated to the function of the claimed method should not be given patentable weight. *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1031–32 (Fed. Cir. 2018) (“Claim limitations directed to printed matter are *not entitled to patentable weight* unless the printed matter is functionally related to the substrate on which the printed matter is applied.”); *C R Bard Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372, 1381 (Fed. Cir. 2020) (“[P]rinted matter encompasses *any information claimed for its communicative content*, and the doctrine prohibits patenting such printed matter unless it is ‘functionally related’ to its ‘substrate,’ which encompasses the structural elements of the claimed invention.”); *In re Distefano*, 808 F.3d 845, 848 (Fed. Cir. 2015) (“[A] limitation is printed matter only *if it claims the content of*

information.”). Here, the claimed method can be performed irrespective of the particular content of information that is provided. EX1003, ¶116.

Thus, Amidon renders obvious claim 4.

F. Claim 5

Claim 5 depends from claim 4 and further recites: “*wherein the first set of information in step (f) includes targeted advertisements.*” Amidon teaches this claim because Amidon discloses that “a user may direct announcements or sales pitches toward members of a social network based on membership parameters, ... such as demographic groupings.” EX1005, 2:30-35; EX1003, ¶¶118-119. Directing a sales pitch to certain members based on demographics constitutes a *targeted advertisement*. EX1003, ¶118. This is consistent with the ’454 patent’s description that “[a]n affiliation that a user has with the situation is used as a basis for delivering the targeted advertisements.” EX1001, 27:41-42. In turn, “[a]ffiliation information may be determined in part by analyzing personal data about the user, such as contained in a stored profile.” *Id.*, 27:55-57.

Thus, Amidon renders obvious claim 5.

G. Claim 6

Claim 6 depends from claim 4 and further recites: “*(f) receiving additional sets of information about the situation from at least one of the devices corresponding to the nodes in the projection that have established a link with the*

event node server;” and “(g) distributing updated information about the situation based on the additional sets of information to the devices corresponding to the nodes in the projection that have established a link with the event node server.”

Amidon teaches the elements of this claim. EX1003, ¶¶120-125.

Amidon teaches multiple users sending messages to the entire conference group. For example, in the embodiment of Figure 4, the *situation* corresponding to the conference in Figure 4 is related to a game. Thread 214 (*first set of information* of claim 4) was initiated with a message by Joe. EX1005, 17:29-31. Message 218 is sent to the group by Matthew, and messages 222 and 224 are from Zeke and Mary, respectively. *Id.*, 17:31-35. Messages 218, 222, 224 constitute *additional sets of information about the situation* (as compared to thread 214, which corresponds to the *first set of information about the situation* recited in claim 4). In other words, Matthew’s, Zeke’s, and Mary’s messages are *additional sets of information* about the game (i.e., *about the situation*).

As described in Amidon, messages from user clients are routed to server 14, which in turn provides information to social network server 16, and then relays the messages (i.e., *updated information*) to the clients of the other users. EX1005, 10:59-67. Further, at a minimum, it would have been obvious that the additional messages would include *updated information* because the group was formed for communication related to the game and the users are discussing the game.

EX1003, ¶123. For example, Mary’s message indicates there are “[p]roblems with the game,” which is updated information. EX1005, FIG. 5. In any event, as discussed above for claim 4, the specific content of information unrelated to the function of the claimed method should not be given patentable weight.

In this way, the *additional sets of information are received from at least one of the devices*, and then *updated information is distributed to the devices*.

Thus, Amidon renders obvious claim 6.

H. Claim 7

Claim 7 depends from claim 1 and further recites: “*wherein the event node server forms one or more different projections of the nodes, each of the one or more projections receiving geographically relevant information from the event node server.*” Amidon teaches this claim. EX1003, ¶¶126-129.

Amidon discloses that messages may be sent to the entire conference or may be defined by additional parameters to have further limited distribution. EX1005, 10:45-58. In the case of a more-limited distribution, server 16 (i.e., *the event node server*) “determines the participants in the conference that meet the criterion” (i.e., *forms one or more different projections*). *See id.*, 11:1-14.

As discussed above regarding claim element [1.2], Amidon also discloses that “participation [in a social network conference] may be defined *geographically*, such as limiting a conference to users within a particular locale or within a certain

distance from one another.” EX1005, 4:6-9; *see also id.*, 12:37-59 (conference participation parameters may include geographical parameters). It would have been obvious to provide geographically relevant information to users in a geographically defined conference because this information would be particularly useful to users in that geographic location. EX1003, ¶128.

Thus, Amidon renders obvious claim 7.

I. Independent Claim 10

1. [10.P] A method of creating a projection of a situational network, the method comprising:

To the extent limiting, Amidon teaches the preamble, for the reasons set forth above for element [1.P]. *See also* EX1003, ¶130.

2. [10.1] (a) receiving, by a first device corresponding to a node in a multi-dimensional personal information network, an invitation to establish a link with an event node server in response to the first device being included in a projection of nodes of the multi-dimensional personal information network

Amidon teaches element [10.1] for the reasons set forth above for elements [1.1], [1.2], and [1.3]. *See also* EX1003, ¶131. In particular, as discussed for element [1.3], Amidon discloses transmitting invitations to users, via their respective computing devices 330, to join a social network conference. Thus, Amidon correspondingly discloses the computing devices 330 corresponding to the users *receiving* the invitation, and renders obvious element [10.1].

3. [10.2] (b) transmitting a response accepting the invitation to establish a link with the event node server;

Amidon teaches element [10.2] for the reasons set forth above for element [1.4]. *See also* EX1003, ¶132. In particular, as discussed for element [1.4], Amidon discloses, or at least suggests, receiving a response accepting the invitation from at least one of the devices. Thus, Amidon correspondingly discloses, or at least suggests, the devices *transmitting* the response, and renders obvious element [10.2].

4. [10.3] (c) establishing a link with the event node server; and

Amidon teaches element [10.3] for the reasons set forth above for elements [1.3] and [1.5]. *See also* EX1003, ¶133.

5. [10.4] (d) receiving information about the situation from the event node server.

Amidon teaches element [10.4] for the reasons set forth above for claim 4. *See also* EX1003, ¶134. As discussed for claim 4, Amidon discloses sending messages (i.e., *information*) about the situation to which the conference is related. Thus, Amidon correspondingly discloses users *receiving* those messages, and renders obvious element [10.4].

J. Claim 11

Claim 11 depends from claim 10 and further recites: “*wherein the invitation is received based on a geographic proximity of the first device with other devices*

in the multi-dimensional personal information network.” Amidon teaches this claim. EX1003, ¶¶135-137.

Amidon discloses that “participation [in a social network conference] may be defined *geographically*, such as limiting a conference to users within a particular locale or *within a certain distance from one another.*” EX1005, 4:6-9; *see also id.*, 12:37-59 (conference participation parameters may include geographical parameters). *See also* Section VI.B.3 (element [1.2]).

Thus, Amidon renders obvious claim 11.

K. Claim 12

Claim 12 depends from claim 10 and further recites: “*wherein the event node server corresponds to an event node of the situational network created in response to identification of the situation by a situation authority.*” Amidon teaches claim 12 for the reasons set forth above for element [1.1] and claim 2. *See also* EX1003, ¶138.

L. Claim 13

Claim 13 depends from claim 10 and further recites: “*(e) receiving the projection of the nodes of the situational network from step (a) from the event node server.*” Amidon teaches this claim. EX1003, ¶¶139-141.

As discussed above for element [1.2], Amidon discloses that social network server 16 (i.e., *event node server*) assembles a participant list for potential

inclusion in the social network conference (i.e., *projection of nodes of the situation network*). EX1005, 10:37-39. Amidon further discloses that “[social network s]erver 316 may provide a conference participant list to messaging server 314, which sends one or more notifications to the requisite users.” EX1005, 21:3-5. Messaging server 314, correspondingly, *receives* the participant list (i.e., *projection of nodes of the situational network*).

Thus, Amidon renders obvious claim 13.

M. Claim 14

Claim 14 depends from claim 13 and further recites: “(f) *inviting at least one other device included in the projection to establish a link with the first device;*” “(g) *connecting to the at least one other device from step (e)*^[5] *accepting the invitation;*” and “(h) *sharing information related to the situation with the at least one other device.*” Amidon teaches the elements of this claim. EX1003, ¶¶142-145.

Regarding steps (f) and (g), Amidon teaches that, in some embodiments, the messaging application 342 of a computing devices 330 “may be able to connect to other messaging clients [342 of other computing devices 330] without the need to pass the messages through a central server.” EX1005, 20:48-51, FIG. 6. As

⁵ Petitioner understands this to be a typographical error, referring to “step (f)” of claim 14, in which the “at least one other device” is first recited.

described for claim elements [10.1] and [10.2], Amidon's client devices receive an invitation to join a social network conference and send a response to the invitation. *See also* claim elements [1.3], [1.4]. Based on Amidon's teachings, it would have been obvious to invite more than one user to join the conference (i.e., *at least one other device*). EX1003, ¶143. A POSA would have likewise found it obvious for the *first device to invite at least one other device* to establish a connection, based on Amidon's express teachings to do so in other embodiments. *Id.*

Finally, regarding step (h) of claim 14, for the reasons set forth above for claim 4, Amidon discloses sending messages (i.e., *information*) about the situation to which the conference is related, and sending those messages to each user in the conference group, each user receiving the message being associated with *at least one other device*.

Thus, Amidon renders obvious claim 14.

N. Claim 15

Claim 15 depends from claim 14 and further recites: "*wherein the connections established in step (g) have an order of separation of one.*" Amidon teaches this claim. EX1003, ¶¶146-148.

Amidon teaches *an order of separation of one* because Amidon discloses "a first user may provide one or more distribution parameter(s) that identify inclusion or exclusion rules, such as a *desired degree of separation* (relative to the first user)

restricting which other users are to be included in the conference. Based on the parameter(s), the conferencing system may determine which social network users fall within the desired degree of situation [(sic – separation)] and include them in the social network conference.” EX1005, 3:40-47. Amidon also expressly teaches that a user “could specify users within a *single degree of separation*.” *Id.*, 10:11-24; *see also id.*, 11:4-6 (“[U]ser A may specify that the message is to be distributed only to members within *one degree of separation*.”).

Thus, Amidon renders obvious claim 15.

O. Claim 16

Claim 16 depends from claim 14 and further recites: “*wherein the connections established in step (g) are multi-dimensional*.” Amidon teaches this claim. EX1003, ¶¶149-151.

Amidon teaches that the conference participant selection can be based on multiple distribution parameters, i.e., *multi-dimensional*. *See* EX1005, 3:22-25, 3:33-47. And “[u]sers may specify any number or *combination of* rules, preferences, and *parameters* in defining the extent of conference participation.” *Id.*, 12:37-39. For example, the extent of conference participation may be defined by degree of separation, user identity, membership in a group, interests, demographic characteristics, parameters based on user activity (e.g., users participating in content sharing), characterization of user relationships (e.g., friend,

co-worker), and geography. *Id.*, 12:40-65. Each of these examples corresponds to a *dimension* by which the *connections* may be characterized.

Thus, Amidon renders obvious claim 16.

P. Claim 17

Claim 17 depends from claim 16 and further recites: “*wherein at least one of the dimensions corresponds to the situation.*” Amidon teaches this claim. EX1003, ¶¶152-154.

As described above for elements [1.1] and [10.1], Amidon teaches various *situations* in response to which a social network conference may be initiated—e.g., users listening to the same music, a certain number of users in the social network are involved in a conversation (e.g., related to a game), or users sharing content on a particular topic. As discussed for claim 16, one of the parameters (i.e., *dimensions*) in Amidon upon which conference participant selection can be based is user activity (e.g., users participating in content sharing). When users are sharing content on a particular topic (the example *situation*), and a conference is formed based on the user activity of content sharing (the example *dimension*), the *dimension corresponds to the situation* because both are related to the user’s content sharing activity.

Thus, Amidon renders obvious claim 17.

Q. Claim 19

Claim 19 depends from claim 10 and further recites: “*(e) providing information about the situation to the event node server.*” Amidon teaches this claim. EX1003, ¶¶155-157.

As set forth above for claim 6, Amidon teaches that messages (i.e., *information about the situation*) from user clients are routed to server 14, which in turn provides information to social network server 16 (i.e., *the event node server*). EX1005, 10:59-67. In this way, the *information about the situation* is provided to the *event node server*.

Thus, Amidon renders obvious claim 19.

R. Independent Claim 20

Claim 20 recites a *system for creating a projection of a situational network*. The system of claim 20 includes an *event node server* configured to perform functions similar to the steps of method claim 1. The system of claim 20 further includes a *plurality of devices* configured to perform functions similar to the steps of method claim 10. Amidon teaches this claim. EX1003, ¶¶158-161.

As set forth above for claim 1, Amidon’s system 12 supports social network based conferencing. EX1005, 8:1-3, FIG. 2. As also discussed, social network server 16 of system 12 teaches *an event node server*. See claim [1]. As set forth above for claim elements [1.1], [1.2], [1.3], [1.4.], and [1.5], Amidon teaches the

functionalities of the event node server recited in claim 20. EX1003, ¶159.

Additionally, in claim 20, the *event node server* is *corresponding to a situation authority*. As discussed above for claim 2, Amidon teaches that a social network conference and its corresponding database records defining the conference (i.e., *the event node*) are created in response to a user (i.e., *a situation authority*) identifying parameters (i.e., *a situation*) for initiating a conference. It would have been obvious that social network server 16 (i.e., *event node server*) *correspond[s] to*, or relates to, the user (i.e., *situation authority*). *Id.* In Amidon, the social network server is related to, and thus *correspond[s] to*, the users of the social network. EX1005, 9:10-12 (“Social network server 16 may interact with users of clients 30a, 30b, and 30c....”), 9:23-38 (describing how social network server 16 stores data defining, e.g., social network(s) and social network member (i.e., user) data).

Further, Amidon teaches a plurality of conferencing devices 30a, 30b, 30c, each of which comprises one or more computing devices. EX1005, 8:12-35; *see also* claim element [1.1]. As set forth above for claim elements [10.1], [10.2], and [10.4], Amidon teaches the functionalities of the computing devices recited in claim 20. EX1003, ¶160.

Thus, Amidon renders obvious the system of claim 20.

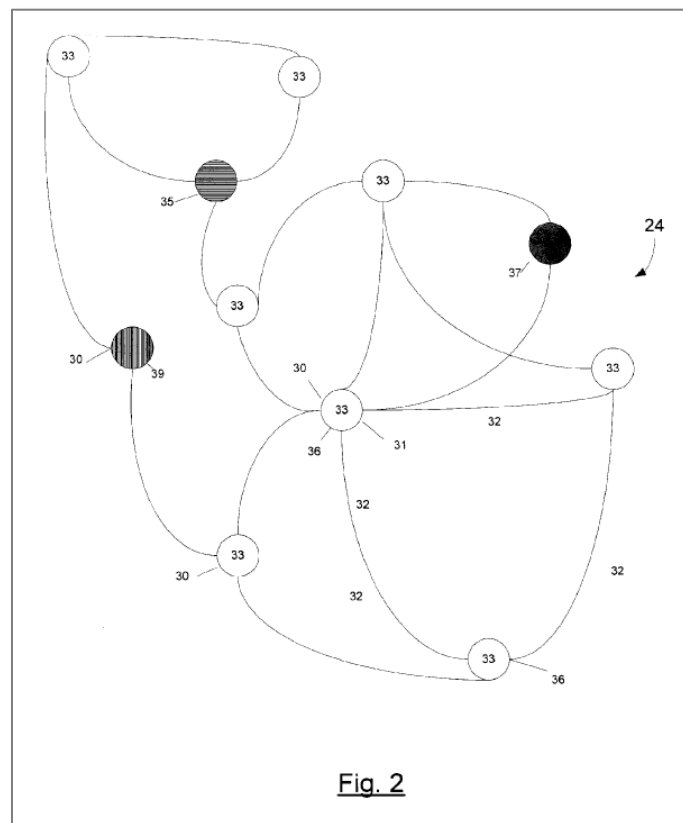
VII. GROUND 2: CLAIMS 1-4, 6, 8-18, AND 20 WOULD HAVE BEEN OBVIOUS OVER WONG IN VIEW OF GOGIC.

The combination of Wong and Gogic renders obvious claims 1-4, 6, 8-18, and 20. EX1003, ¶162.

A. Overview of Wong

Wong relates to a “method and system for generating an interactive computerized biological network consisting of living and non-living entities based upon the multiple relationship types which can exist between entities.” EX1006, Abstract. Wong teaches creating a social network. *See, e.g., id.*, ¶¶2, 3, 17-19.

Figure 2 of Wong is reproduced below.



EX1006, FIG. 2.

In Wong, the “network of living and non-living entities is represented by a number of elements, each representing a living or non-living entity, which are referred to as ‘nodes’ 30, joined by connections 32, referred to as ‘linkages’, to other nodes 30.” *Id.*, ¶21.

Wong also teaches communication between nodes in a social network. “The social networking features ... facilitate many forms of communication, such as notification of updates, alerts, sharing of files and photos, blogs, instant messaging and comments.” *Id.*, ¶44. As described in Wong, each node of the network represents a living or non-living entity, such as people, places, objects, or animals. *Id.*, ¶21. In Wong, people or organizations “can represent themselves to other persons or organizations of persons through their active nodes and interact electronically with other persons or organizations of persons represented by an active node.” *Id.*, ¶30. The sender of communications can select which nodes in the network can receive a particular communication. *Id.*, ¶44. *See also* EX1003, ¶¶57-59.

B. Overview of Gogic

Gogic relates to “a system and method for providing group communication services to an ad-hoc group formed according to vicinity with other users of communication device(s) (CD), or according to proximity of a given locality, in an existing communication system.” EX1007, 4:16-20; *see also id.*, Abstract.

“In group communication system 200, a group of communication device users, individually known as group or net members, communicate with one another using a wireless communication device (CD) assigned to each group or net member.” *Id.*, 5:65-6:2.

In Gogic, an ad-hoc communication group may be formed, for example, in response to an emergency notification and based on the geographic proximity of users to a designated location. *Id.*, 10:16-11:13, FIG. 4. Users are invited to join the communication group, and if they meet the designated criteria, may accept the invitation. *Id.*, 10:45-11:9. *See also* EX1003, ¶¶60-62.

C. A POSA Would have Found it Obvious to Combine Wong and Gogic

A POSA would have been motivated to modify Wong’s social network communication system to incorporate Gogic’s teachings of an ad-hoc location-based communication group. EX1003, ¶¶163-168.

Prior to 2007, it was known that online forums could be used to aid in emergency planning and response. EX1009, 56. For example, in 2005 during Hurricane Katrina, the website www.katrina.com served as a popular online resource for hurricane information, including pointers to other websites and a message board to help locate missing people. *Id.* Other websites were created to collect and share location-specific information about the storm and the damage in its aftermath. *Id.* Wong expressly teaches that “notification of updates” or “alerts”

may be communicated via its social network. EX1006, ¶44. A POSA would have recognized that it would be useful in Wong's social network system to be able to send such updates or alerts to users located in an affected area during an emergency, similar to the known use of online forums to provide this information. EX1003, ¶164.

This would have led to Gogic. *Id.*, ¶165. Like Wong, Gogic is directed to group communication over a network. Gogic teaches that “[d]uring emergency situations, the formation of a communication group based on proximity of other users, or based on user's location being confined to a given area, may allow emergency services to be more efficiently or more appropriately deployed.” EX1007, 4:20-24.

A POSA would have had a reasonable expectation of success in implementing Gogic's ad-hoc location-based communication group in Wong's social network communication system. EX1003, ¶166. Gogic expressly recognizes that its invention is not limited to the wireless CDMA communication system described in the exemplary embodiments, and that it can be used in “other communications systems.” EX1007, 4:40-57. In particular, Gogic discloses that its invention can be used with, for example, “any wireless communication system,” “wireline telephones, paging devices, [and] portable or desktop computers,” and that it applies to “all of the various forms of media, including, but not limited to,

voice, speech, data, [and] video.” *Id.*, 4:47-57. In Wong, users communicate with other users via the social network, and may access the social network over any device capable of communicating over a network, such as, for example “laptops, desktops, handheld, personal digital assistants, [or] mobile telephones.” EX1006, ¶17.

A POSA would have recognized that Gogic’s teachings of ad-hoc location-based communication group could be implemented in the “communication system” of Wong’s social network. EX1003, ¶167. A POSA would have been motivated to do so, at least in an emergency situation, to allow for efficient communication and appropriate deployment of emergency services. *Id.*. Further, as discussed, a POSA would have had a reasonable expectation of success in implementing the combination. *Id.*, ¶168. The proposed combination simply combines prior-art elements (e.g., combines Wong’s social network communication system with Gogic’s ad-hoc location-based communication group) according to known methods to yield predictable results, and is also the use of a known technique (implementing Gogic’s ad-hoc location-based communication group) to improve similar devices (Wong’s social network communication system) in the same way. *Id.*

D. Independent Claim 1

1. [1.P]: A method of creating a projection of a situational network, the method comprising

To the extent limiting, the combination of Wong and Gogic teaches the preamble. EX1003, ¶¶169-173.

Gogic discloses a “method for providing group communication services to an ad-hoc group formed according to vicinity with other users of communication device(s) (CD), or according to proximity of a given locality, in an existing communication system.” EX1007, 4:16-20. For example, “[d]uring emergency situations, the formation of a communication group based on proximity of other users, or based on user’s location being confined to a given area, may allow emergency services to be more efficiently or more appropriately deployed.” *Id.*, 4:20-24.

In Wong, “[t]he network ... 24 can be viewed in many ways, such as graphically as a set of nodes 30 connected by their associated linkages 32.” EX1006, ¶35. “The network ... can be presented graphically by setting a single node as the root of the network ... and displaying a set number of linkages 32 radiating from the root node.” *Id.* This is consistent with the ’454 patent’s description of “a ‘projected’ view” as “a subset of the nodes” of the NSDN. EX1001, 16:25-28.

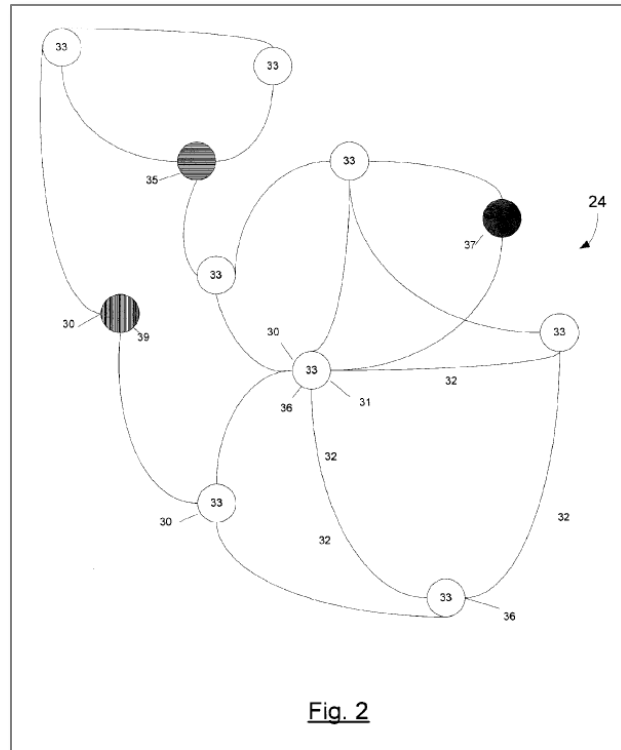
As discussed above, a POSA would have been motivated to incorporate Gogic's teachings of an ad-hoc location-based communication group into Wong's social network communication system to be able to, for example, send updates or alerts to users located in an affected area during an emergency. EX1003, ¶172. Thus, in the Wong-Gogic combination, a POSA would have been motivated to select the particular subset of nodes in Wong's social network that are invited to participate in the ad-hoc location-based communication group based on the location thereof. *Id.*

Thus, the Wong-Gogic combination renders obvious the preamble.

2. [1.1]: (a) creating, by an event node server, an event node in a multi-dimensional personal information network, the event node corresponding to a situation

The Wong-Gogic combination teaches this element. EX1003, ¶¶174-180.

Wong's network 24 teaches a *multi-dimensional personal information network*. EX1006, FIG. 2.



EX1006, FIG. 2.

As seen in Wong's Figure 2, network 24 includes nodes 30 joined by connections 32, also called "linkages." EX1006, ¶21. Each node represents a living or non-living entity, such as "people 33 (living and deceased), places 35, objects 37 and animals 39." *Id.* Linkages 32 have a defined linkage type, "representing the actual type relationship which exists between the person, place, object or animal represented by the linked nodes." *Id.*, ¶24. "Nodes can be linked by *more than one* linkage type, representing the multiple types of relationships between the entities represented by the nodes." *Id.*; *see also id.*, ¶33 ("The relationship of a node to another node within the same network of living and non-living entities can also be represented by more than one defined linkage type."), FIG. 4. In Wong, each node

contains communication tools for “communicat[ing] with other entities within or outside the network using the features of the social network” and/or “communicat[ing] with nodes in the same network.” *Id.*, ¶19; *see id.*, ¶¶31-32.

Wong describes four exemplary “main node types”—people, places, objects, animals—but also teaches that there may be additional main node types. EX1006, ¶¶21-22. Wong also discloses creating new nodes. *Id.*, ¶¶26-27, FIGs. 5, 6. As discussed above, Wong teaches that “notification of updates” or “alerts” may be communicated via its social network. *Id.*, ¶44. Gogic teaches that “dispatcher 400 identifies the occurrence or presence of an event or condition wherein communications between proximately located users could be beneficial.” EX1007, 10:18-21. In response to identifying the event or condition, Gogic creates an ad-hoc communication group as initiated, for example, by dispatcher 400 via administrator interface 226. *Id.*, 7:25-34, 10:16-11:13, FIG. 4. Based on these teachings of Gogic—and because, in Wong, communication happens between nodes, EX1006, ¶44—a POSA would have recognized that a new node (i.e., *an event node*) related to the identified event or condition (i.e., *a situation*) would be useful in Wong’s social network to facilitate communication related to the event or condition. EX1003, ¶¶177-178. The nodes/users linked to this new event node in Wong’s system would, thus, form an ad-hoc communication group, which is desirable as taught by Gogic. *Id.*, ¶177.

In Wong, each node can contain, for example, information pertaining to the person or entity that it represents, a home page, communication tools, data and files, storage space, network information, and/or editing tools. EX1006, ¶¶19, 31-32. A POSA would have understood that each node is created by and associated with a server to provide these capabilities. EX1003, ¶179; *see* EX1006, ¶17 (“A social network server or servers 20 maintain a system comprising an Internet website, database and associated data, which is accessible to users 10. Server 20 has the hardware and software required to operate an internet-accessible social network, including web server, email server, databases, data storage and the like.”), ¶18 (creation of nodes is “carried out in a manner well known to web site programmers”). Wong’s server 20, thus, discloses or at least suggests the claimed *event node server*. This is consistent with the ’454 patent’s teaching that “users may have their nodes hosted in a common location, e.g., on a local or remote server.” EX1001, 15:25-27.

Thus, the Wong-Gogic combination renders obvious element [1.1].

3. [1.2]: (b) forming a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network;

The Wong-Gogic combination teaches this element. EX1003, ¶¶181-185.

Wong teaches *forming a projection of nodes ... in the multi-dimensional personal information network*. In Wong, a user “with an active node can view the

connection, one or a series of defined linkages of nodes, between its own node and any other node in the network of living and non-living entities.” EX1006, ¶34.

“The network ... 24 can be viewed in many ways, such as graphically as a set of nodes 30 connected by their associated linkages 32.” *Id.*, ¶35. “The network ... can be presented graphically by setting a single node as the root of the network ... and displaying a set number of linkages 32 radiating from the root node.” *Id.* Wong also teaches that a “sender can select those in the network ... who can receive or view a particular communication.” *Id.*, ¶44. This is consistent with the ’454 patent’s description of “a ‘projected’ view” as “a subset of the nodes” of the NDSN. EX1001, 16:26-27.

Gogic teaches *using geographic locations of a plurality of devices* in determining which users to invite to the ad-hoc communication group. As described with respect to Gogic’s Figure 4, “the group is formed on the basis of proximity to a designated location.” EX1007, 10:16-18. Gogic also describes including “group membership location criteria such as a region or location criteria defining the inclusive boundary of users that are invited to join the group.” *Id.*, 10:26-29. “[R]epresentative location criteria may include a location centerpoint and an acceptable radius, perimeter locations, servicing base station identifier, as well as other location based identifiers known by those of ordinary skill in the art.” *Id.*, 10:30-34.

As discussed above, a POSA would have been motivated to incorporate Gogic's teachings of an ad-hoc location-based communication group into Wong's social network communication system to be able to, for example, send updates or alerts to users located in an affected area during an emergency. EX1003, ¶184. Thus, in the Wong-Gogic combination, a POSA would have been motivated to select the particular subset of nodes in Wong's social network that are invited to participate in the ad-hoc location-based communication group based on the geographic locations of the devices used to access the social network. *Id.*

Thus, the Wong-Gogic combination renders obvious element [1.2].

4. [1.3]: (c) transmitting an invitation to establish a link with the event node server to the devices corresponding to each node in the projection formed in step (b)

The Wong-Gogic combination teaches this element. EX1003, ¶¶186-190.

First, the combination teaches *transmitting an invitation ... to the devices corresponding to each node in the projection formed in step (b)*. Gogic teaches *transmitting an invitation* to join the ad-hoc communication group. "MSC/BS_N 408 as previously directed 418 by CM 404 transmits 420 a broad or indiscriminant or generalized invitation to join a group to all recipient CDs with their invitation acceptance being conditional upon the CD qualifying according to the location criteria also transmitted in the broad indiscriminant invitation." EX1007, 10:45-50. "The CDs 412, 414, 416 receive the broad indiscriminant invitation to join the

group with the right to accept the invitation being conditional upon the CD qualifying according to the location criteria also transmitted with the broad indiscriminant invitation in the emergency broadcast channel.” *Id.*, 10:57-61.

Based on these teachings of Gogic, a POSA would have been motivated to likewise transmit an invitation to participate in the ad-hoc location-based communication group to the devices corresponding to the particular subset of nodes in Wong’s social network determined to meet the geographic location criteria. EX1003, ¶188. Alternatively, as in Gogic, a POSA would have been motivated to transmit a broad invitation to all nodes in the network along with geographic location criteria. *Id.* The claim language does not require the invitation to be sent *only* to the devices corresponding to the nodes in the projection. *Id.*; EX1001, 17:43-47 (describing that a “node may be able to discover other nodes by broadcasting a message on the local network”).

Second, the combination teaches the *invitation is to establish a link with the event node server*. In the Wong-Gogic combination, participating in the ad-hoc communication group results in a linkage between the user node and the newly created event node. This is because communication in the Wong system occurs between nodes. EX1006, ¶44. Thus, a POSA would have understood that an invitation to join the ad-hoc communication group constitutes an invitation to link to the event node and its associated server (*the event node server*). EX1003, ¶189.

See also Section VII.D.6 (element [1.5]) (regarding the combination’s teachings of *establishing a link*).

Thus, the Wong-Gogic combination renders obvious element [1.3].

5. [1.4]: (d) receiving a response from at least one of the devices from step (c) accepting the invitation to establish a link with the event node server

The Wong-Gogic combination teaches this element. EX1003, ¶¶191-194.

Gogic teaches *receiving a response from at least one of the devices ... accepting the invitation* to join the ad-hoc communication group. “FIG. 4 illustrates CD₁ 412 as qualifying to join the group and accordingly accepting 440 the invitation which is relayed back to dispatcher 400 through CM 404.” EX1007, 10:67-11:2; *see id.*, 11:4-7 (CD₂ also accepting the invitation).

A POSA would have understood the nodes in Wong’s social network that receive an invitation and also qualify to join the group would likewise accept the invitation. EX1003, ¶193.

Thus, the Wong-Gogic combination renders obvious element [1.4].

6. [1.5]: (e) establishing a link with each device accepting the invitation

The Wong-Gogic combination teaches this element. EX1003, ¶¶195-197.

As discussed above, in the Wong-Gogic combination, participating in the ad-hoc communication group in Wong’s system results in a linkage between the user node and the newly created event node and its associated server. This is

because communication in the Wong system occurs between nodes. EX1006, ¶44.

In Gogic, communication device(s) (CD) are added to the ad-hoc communication group in response to accepting the invitation. EX1007, 11:2-9, 6:3-5 (“The term ‘group’ or ‘net’ denotes a collection of communication device users authorized to communicate with each other.”). Thus, a POSA would have understood that a user device associated with the user node accepting the invitation would be linked to the server associated with the event node to participate in the ad-hoc communication group. EX1003, ¶196. Further, a POSA would have understood that, to the extent a particular user’s device was not previously linked to the particular server associated with the event node to which it has been invited, it would have been obvious that a new link would be established in order to facilitate participation in the ad-hoc communication group. *Id.*

Thus, the Wong-Gogic combination renders obvious element [1.5].

E. Claim 2

Gogic teaches claim 2. EX1003, ¶¶198-200.

In Gogic, the emergency situation is identified by a dispatcher. EX1007, 10:18-21. “Only authorized personnel are allowed to have access to Dispatcher 226, ... e.g., Police, Emergency Crews, Fire Dept. personnel, etc.” *Id.*, 10:1-10. The ’454 patent includes “government agencies (e.g., local fire departments ...)” as an example of a situation authority. EX1001, 4:10-17.

Thus, the Wong-Gogic combination renders obvious claim 2.

F. Claim 3

The Wong-Gogic combination teaches claim 3. EX1003, ¶¶201-205.

As discussed for element [1.2], Wong teaches that the network 24 can be viewed in many ways, such as for example, setting a single node as the root and displaying a set number of linkages radiating therefrom. EX1006, ¶35. Wong also teaches that “[a]nother part of the network ... can be viewed by resetting another node as the root.” *Id.* Wong thus teaches that the *projection* can be viewed from different user perspectives. EX1003, ¶202.

As discussed above, in the Wong-Gogic combination, an ad-hoc location-based communication group is implemented in Wong’s social network. The users in the ad-hoc communication group correspond to the *nodes in the projection that ha[ve] established a link with the event node server*. As taught in Gogic, members of the group are authorized to transmit communications to other members of the group. *E.g.*, EX1007, 2:54-3:5. It would have been obvious to *provide to each user’s device in the ad-hoc location-based communication group the view of direct and indirect connections with other users included in this group, i.e., the projection from that user’s perspective, to facilitate the communication*. EX1003, ¶203; EX1006, ¶34, FIG. 2.

Alternatively, users in the ad-hoc communication group may wish to view other nodes in the network in order to confirm group membership. *See, e.g.*, EX1007, 2:12-17 (“There is a need for emergency response teams to establish communication with any and all users in an area affected by a large scale natural disaster ...”), 6:3-5 (defining “group” as “a collection of communication device users authorized to communicate with each other”). Such a user in the ad-hoc communication group (*device ... that has established a link*) that views the group (*projection*) is *provided the projection*. EX1003, ¶204.

Thus, the Wong-Gogic combination renders obvious claim 3.

G. Claim 4

The Wong-Gogic combination teaches claim 4. EX1003, ¶¶206-208.

In Wong, communication between nodes includes sending alerts. EX1006, ¶44. Once the user nodes are linked to the event node, as described above for claim 1, a POSA would have understood that alerts (i.e., *a first set of information about the situation*) are communicated from the event node to the user nodes. EX1003, ¶207. Gogic also teaches using the ad-hoc communication group to give users in an affected area emergency assistance information that is specific to the area where they are located. EX1007, 2:12-17.

Thus, the Wong-Gogic combination renders obvious claim 4.

H. Claim 6

Gogic teaches the elements of claim 6. EX1003, ¶¶209-213.

Gogic discloses that after a group is formed, a user may be granted permission to transmit information to the other group members. For example, “[o]nce the ad-hoc group has been formed ..., *a specific CD_N may request 502 the floor according to a floor request process.*” EX1007, 11:22-27; *see also id.*, 11:57-67. Once the floor is granted to a specific CD_N, the CD_N has permission to transmit to others in the group. *Id.*, 13:15-34 (claim 1).

A POSA would have recognized that the information transmitted within the group is “*updated information about the situation*” because the group has specifically been formed for communication related to the situation. EX1003, ¶211. Further, because a user may transmit information to other group members, Gogic teaches the “*distributing*” step. And because users receive the transmissions from the group member holding the floor (e.g., as Gogic describes, “monitoring of situational or conditional data,” EX1007, 12:1-6), Gogic teaches the “*receiving*” step. EX1003, ¶212.

Thus, the Wong-Gogic combination renders obvious claim 6.

I. Claim 8

Claim 8 depends from claim 1 and further recites: “*wherein the device is a personal information aggregator.*” Wong teaches this element. EX1003, ¶¶214-216.

The ’454 patent describes a “personal information aggregator” as “provid[ing] a user with the ability to store, organize and control personal information.” EX1001, 7:65-67. Wong teaches such a “personal information aggregator.” Wong states, “[e]ach active node can contain information pertaining to the living individual person that it represents,” including, for example, genetic information. EX1006, ¶19. “The user can edit the user’s own node including editing the content of the user’s profile, ... add or change privacy settings, ... add genetic information.” *Id.*, ¶20. Users access this profile with, for example, “laptops, desktops, handheld, personal digital assistants, [or] mobile telephones.” *Id.*, ¶17.

Thus, the Wong-Gogic combination renders obvious claim 8.

J. Claim 9

Claim 9 depends from claim 1 and further recites: “*wherein the situation is a weather phenomenon.*” Gogic teaches this element. EX1003, ¶¶217-219.

One example of an emergency situation for which Gogic describes its ad-hoc communication group would be used is hurricanes. EX1007, 1:26-29, 2:12-17, 2:20-24. Thus, Gogic discloses a *situation* that is a *weather phenomenon*.

Thus, the Wong-Gogic combination renders obvious claim 9.

K. Independent Claim 10

- 1. [10.P] A method of creating a projection of a situational network, the method comprising:**

To the extent limiting, the Wang-Gogic combination teaches the preamble for the reasons set forth above for element [1.P]. *See also* EX1003, ¶220.

- 2. [10.1] (a) receiving, by a first device corresponding to a node in a multi-dimensional personal information network, an invitation to establish a link with an event node server in response to the first device being included in a projection of nodes of the multi-dimensional personal information network**

The Wong-Gogic combination renders obvious element [10.1] for the reasons set forth above for elements [1.1], [1.2], and [1.3]. *See also* EX1003, ¶221. In particular, as discussed for element [1.3], Gogic teaches the user devices *receive* the invitation to join the group. EX1007, 10:57-61.

- 3. [10.2] (b) transmitting a response accepting the invitation to establish a link with the event node server;**

The Wong-Gogic combination renders obvious element [10.2] for the reasons set forth above for element [1.4]. *See also* EX1003, ¶222. In particular, as

discussed for element [1.4], Gogic teaches the user device accepting the invitation.
EX1007, 10:66-11:7.

4. [10.3] (c) establishing a link with the event node server; and

The Wong-Gogic combination renders obvious element [10.3] for the reasons set forth above for element [1.5]. *See also* EX1003, ¶223.

5. [10.4] (d) receiving information about the situation from the event node server.

The Wong-Gogic combination renders obvious element [10.4] for the reasons set forth above for claim 4. *See also* EX1003, ¶224. As discussed for claim 4, Wong discloses sending alerts (i.e., *information*) and Gogic teaches providing emergency assistance information (i.e., *information about the situation*) to users. Thus, the Wong-Gogic combination correspondingly teaches users *receiving* those messages.

L. Claim 11

Gogic teaches claim 11. EX1003, ¶¶225-227.

Gogic discloses that “the group is formed on the basis of proximity to a designated location.” EX1007, 10:16-18. *See also* Section VII.D.3 (element [1.2]). A POSA would have understood that users within a designated proximity of a designation location would also have a geographic proximity relative to each other. EX1003, ¶226.

Thus, the Wong-Gogic combination renders obvious claim 11.

M. Claim 12

The Wong-Gogic combination renders obvious claim 12 for the reasons set forth above for element [1.1] and claim 2. *See also* EX1003, ¶228.

N. Claim 13

The Wong-Gogic combination teaches claim 13. EX1003, ¶¶229-231.

As discussed above for claim 3, it would have been obvious based on the teachings of Wong and Gogic, to provide the projection of nodes to each of the nodes participating in the ad-hoc location based communication group in order to facilitate the communication. EX1003, ¶230; EX1006, ¶¶34-35. A POSA would have understood this projection to be *receiv[ed] ... from the event node server*, because in the Wong-Gogic combination, the social network is maintained by the server, which includes databases in which all data related to the network (including nodes, linkages, etc.) are stored. EX1003, ¶230; EX1006, ¶¶17, 36.

Thus, the Wong-Gogic combination renders obvious claim 13.

O. Claim 14

The Wong-Gogic combination teaches the elements of claim 14. EX1003, ¶¶232-235.

Wong discloses allowing a user to invite another user to join the social network. EX1006, ¶19. Wong also discloses that a user in one social network (the user associated with *the first device*) invites a user from another social network (the user associated with *at least one other device*) to join and merge the two networks

into one. *Id.*, ¶43. A POSA would have understood that this invitation and subsequent merger of networks results in *establish[ing] a link* connecting the first device and the at least one other device. EX1003, ¶233. Wong further teaches communication (i.e., *sharing information*) among users in the social network. EX1006, ¶¶19, 44. A POSA would have understood that in the Wong-Gogic combination, in which an ad-hoc location based communication network is formed in response to an emergency situation, that such shared information would be *related to the situation*. EX1003, ¶233.

Thus, the Wong-Gogic combination renders obvious claim 14.

P. Claim 15

The Wong-Gogic combination teaches claim 15. EX1003, ¶¶236-238.

Wong teaches *an order of separation of one* because Wong discloses that the connection between nodes is formed of “*one or a series of defined linkages of nodes*.” EX1006, ¶34.

Thus, the Wong-Gogic combination renders obvious claim 15.

Q. Claim 16

The Wong-Gogic combination teaches claim 16. EX1003, ¶¶239-241.

Wong teaches the *connections ... are multi-dimensional*. EX1006, ¶24 (“Nodes can be linked by *more than one* linkage type, representing the multiple types of relationships between the entities represented by the nodes.”); *see also id.*,

¶33 (“The linkage can have one or more defined linkage types representing different relationship types. ... The relationship of a node to another node within the same network of living and non-living entities can also be represented by more than one defined linkage type.”), FIG. 4 (showing a “matrix of linkage relationships,” *id.*, ¶25). Each linkage type corresponds to a *dimension* by which the *connections* may be characterized. EX1003, ¶240.

Thus, the Wong-Gogic combination renders obvious claim 16.

R. Claim 17

The Wong-Gogic combination teaches claim 17. EX1003, ¶¶242-244.

As discussed above for elements [1.P] and [1.2], in the Wong-Gogic combination, users are included in the ad-hoc location based communication group based on their geographic location in an affected area during an emergency. EX1003, ¶243. Thus, the *connections* include a *dimension* of geographic location, which corresponds to the emergency (*the situation*). *Id.*

Thus, the Wong-Gogic combination renders obvious claim 17.

S. Claim 18

Claim 18 depends from claim 17 and further recites: “*wherein the dimension corresponding to the situation includes an affinity greater than affinity included along the other dimensions.*” The Wong-Gogic combination teaches this claim. EX1003, ¶¶245-247.

The '454 patent defines “affinity” as “trust or alignment,” and describes that the affinity attribute may be used to determine which nodes are included in the projection. EX1001, 15:52-53, 16:48-54. As discussed for claim 17, in the Wong-Gogic combination the *dimension* of geographic location corresponding to the emergency (*the situation*) is the dimension based on which users are included in the ad-hoc location based communication group. EX1003, ¶246. Because this decision is based on the geographic location *dimension*, a POSA would have understood this dimension may have a greater affinity, i.e., greater alignment, than any other types of relationships (*dimensions*) between the users. *Id.*

Thus, the Wong-Gogic combination renders obvious claim 18.

T. Independent Claim 20

Claim 20 recites a *system for creating a projection of a situational network*. The system of claim 20 includes an *event node server* configured to perform functions similar to the steps of method claim 1. The system of claim 20 further includes a *plurality of devices* configured to perform functions similar to the steps of method claim 10. The Wong-Gogic combination teaches this claim. EX1003, ¶¶248-251.

As set forth above for claim 1, Wong discloses a system, including computer terminals 14 providing users 10 access to computer network 12. EX1006, ¶17. Further, “[s]erver 20 has the hardware and software required to operate an internet-

accessible social network.” *Id.* As also discussed, Wong’s server 20 teaches, or at least suggests, *an event node server*. See claim 1. As set forth above for claim elements [1.1], [1.2], [1.3], [1.4.], and [1.5], the Wong-Gogic combination renders obvious the functionalities of the event node server recited in claim 20. EX1003, ¶249. Additionally, in claim 20, the *event node server correspond[s] to a situation authority*. As discussed above for claim 2, the Wong-Gogic combination teaches that the event node connecting the ad-hoc communication group is created in response to a dispatcher (i.e., *a situation authority*) identifying the emergency situation (i.e., *a situation*). It would have been obvious that the dispatcher, associated for example with an emergency crew or fire department, could be part of Wong’s social network. *Id.* Wong teaches that nodes can represent objects, which in turn can be for example a group, organization, or business. EX1006, ¶¶21-22. Wong’s server (i.e., *event node server*), thus, *correspond[s] to*, or relates to, the dispatcher (i.e., *situation authority*) because the node associated with the dispatcher is part of the social network maintained by the server. EX1003, ¶249.

Wong teaches that users may access the social network over any device capable of communicating over a network, such as, for example “laptops, desktops, handheld, personal digital assistants, [or] mobile telephones.” EX1006, ¶17. As discussed above for claim elements [10.1], [10.2], and [10.4], the Wong-Gogic

combination also renders obvious the functionalities of the user devices recited in claim 20. EX1003, ¶250.

Thus, the Wong-Gogic combination renders obvious the system of claim 20.

VIII. DISCRETIONARY CONSIDERATIONS UNDER SECTIONS 314(A) AND 325(D) STRONGLY FAVOR INSTITUTION.

A. The *Advanced Bionics* two-part framework strongly favors institution.

Applying the two-part framework from *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH* demonstrates that denial under §325(d) is not appropriate. IPR2019-01469, Paper 6 at 8-9 (P.T.A.B. Feb. 13, 2020) (precedential). Under part one, the same or substantially the same art or arguments were *not* previously presented to the Office, ending the inquiry in favor of institution. None of the references applied here—Amidon, Wong, and Gogic—have previously been considered by the Office.

Thus, the “new, noncumulative prior art asserted in the Petition” strongly favors institution. *Oticon Medical AB v. Cochlear Ltd.*, IPR2019-00975, Paper 15 at 20 (P.T.A.B. Oct. 16, 2019) (§§II.B and II.C precedential). Should Patent Owner attempt to analogize any previously considered art or arguments to those presented here, Petitioner reserves the right to respond.

B. The *Fintiv* factors strongly favor institution.

The *Fintiv* factors strongly favor institution. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (P.T.A.B. Mar. 20, 2020) (precedential). On July 24,

2023, Patent Owner filed a complaint alleging infringement of the '454 patent against Petitioner in the Southern District of New York. The stage and location of the parallel litigation (factors 2 and 3), Petitioner's stipulation (factor 4), and the compelling merits of the Petition (factor 6) all favor institution.

Factor 1 is neutral or favors institution. No motion for stay has been filed and the SDNY court has not indicated whether it would grant any such motion.

Factor 2 favors institution because the SDNY case is in early stages, and the median time to trial for civil actions in SDNY is almost four years (47 months). Although trial is currently scheduled for January 20, 2025, EX1017, the Director's June 21, 2022 Guidance Memorandum regarding discretionary denial under *Fintiv* recognizes, "scheduled trial dates are unreliable and often change." *Fintiv* Guidance Memo, 8.

Factor 3 favors institution because, by the time of institution, much work will remain in the parallel litigation. For example, discovery will still be ongoing and substantive motion practice will not yet be complete. EX1017. Currently, the court has not made any substantive rulings (e.g., a claim construction order). Petitioner's diligence filing the Petition 7 months after the filing of the complaint, only 2 months after the infringement contentions and 3 weeks after the invalidity contentions, and 5 months before the statutory deadline confirms that factor 3 favors institution.

Factor 4 also favors institution. Petitioner stipulates that, if the Board institutes this Petition, Petitioner will not raise at trial in the parallel litigation any invalidity challenges based on prior art that is asserted here. Additionally, the Petition challenges all claims of the '454 patent whereas only claims 1, 2, 4-6, 10, 12, 13, and 20 are asserted in the parallel litigation. Petitioner's stipulation and challenge to additional claims significantly mitigates the concerns for duplication of efforts and reaching inconsistent conclusions under factor 4. *See Sand Revolution II, LLC v. Cont'l Intermodal Group*, IPR2019-01393, Paper 24 at 12 (P.T.A.B. June 16, 2020) (informative).

Factor 6 is *dispositive* in favor of institution because, as shown above, the grounds applied herein are compelling, meritorious challenges that present evidence in which, if unrebutted, would plainly lead to a conclusion that the challenged claims are unpatentable by a preponderance of the evidence. The Petition is also supported by the testimony of Dr. Cooperstock, who supports and adds further weight to the Petition's compelling invalidity challenges.

IX. CONCLUSION

The challenged claims are unpatentable as obvious and *inter partes* review is warranted.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jonathan Tuminaro/

Jonathan Tuminaro (Reg. No. 61,327)

Michael Specht (Reg. No. 54,463)

Jennifer Meyer Chagnon (Reg. No. 55,440)

Attorneys for Petitioner Meta Platforms, Inc.

Date: February 27, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600

Claims Appendix – U.S. Patent No. 8,332,454

Claim 1

Element	Claim Language
[1.P]	A method of creating a projection of a situational network, the method comprising:
[1.1]	(a) creating, by an event node server, an event node in a multi-dimensional personal information network, the event node corresponding to a situation;
[1.2]	(b) forming a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network;
[1.3]	(c) transmitting an invitation to establish a link with the event node server to the devices corresponding to each node in the projection formed in step (b);
[1.4]	(d) receiving a response from at least one of the devices from step (c) accepting the invitation to establish a link with the event node server; and
[1.5]	(e) establishing a link with each device accepting the invitation.

Claim 2

Element	
[2]	The method of claim 1, wherein the event node is created in response to identification of the situation by a situation authority.

Claim 3

Element	
[3]	The method of claim 1, further comprising: (f) providing the projection formed in step (b) to each device corresponding to the nodes in the projection that has established a link with the event node server.

Claim 4

Element	
[4]	The method of claim 1, further comprising: (f) providing a first set of information about the situation to each device corresponding to the nodes in the projection that has established a link with the event node server.

Claim 5

Element	
[5]	The method of claim 4, wherein the first set of information in step (f) includes targeted advertisements.

Claim 6

Element	
[6]	The method of claim 4, further comprising: (f) receiving additional sets of information about the situation from at least one of the devices corresponding to the nodes in the projection that have established a link with the event node server; and (g) distributing updated information about the situation based on the additional sets of information to the devices corresponding to the nodes in the projection that have established a link with the event node server.

Claim 7

Element	
[7]	The method of claim 1, wherein the event node server forms one or more different projections of the nodes, each of the one or more projections receiving geographically relevant information from the event node server.

Claim 8

Element	
[8]	The method of claim 1, wherein the device is a personal information aggregator.

Claim 9

Element	
[9]	The method of claim 1, wherein the situation is a weather phenomenon.

Claim 10

Element	
[10.P]	A method of creating a projection of a situational network, the method comprising:
[10.1]	(a) receiving, by a first device corresponding to a node in a multi-dimensional personal information network, an invitation to establish a link with an event node server in response to the first device being included in a projection of nodes of the multi-dimensional personal information network;
[10.2]	(b) transmitting a response accepting the invitation to establish a link with the event node server;
[10.3]	(c) establishing a link with the event node server; and
[10.4]	(d) receiving information about the situation from the event node server.

Claim 11

Element	
[11]	The method of claim 10, wherein the invitation is received based on a geographic proximity of the first device with other devices in the multi-dimensional personal information network.

Claim 12

Element	
[12]	The method of claim 10, wherein the event node server corresponds to an event node of the situational network created in response to identification of the situation by a situation authority.

Claim 13

Element	
[13]	The method of claim 10, further comprising: (e) receiving the projection of the nodes of the situational network from step (a) from the event node server.

Claim 14

Element	
[14]	The method of claim 13, further comprising: (f) inviting at least one other device included in the projection to establish a link with the first device; (g) connecting to the at least one other device from step (e) accepting the invitation; and (h) sharing information related to the situation with the at least one other device.

Claim 15

Element	
[15]	The method of claim 14, wherein the connections established in step (g) have an order of separation of one.

Claim 16

Element	
[16]	The method of claim 14, wherein the connections established in step (g) are multi-dimensional.

Claim 17

Element	
[17]	The method of claim 16, wherein at least one of the dimensions corresponds to the situation.

Claim 18

Element	
[18]	The method of claim 17, wherein the dimension corresponding to the situation includes an affinity greater than affinity included along the other dimensions.

Claim 19

Element	
[19]	The method of claim 10, further comprising: (e) providing information about the situation to the event node server.

Claim 20

Element	
[20.P]	A system for creating a projection of a situational network, the system comprising:
[20.1]	an event node server, corresponding to a situation authority, configured to create an event node in a multi-dimensional personal information network, the event node corresponding to a situation, form a projection of nodes of the situational network using geographic locations of a plurality of devices corresponding to nodes in the multi-dimensional personal information network, transmit an invitation to establish a link with the event node server to the device corresponding to each node in the projection, receive a response from at least one of the devices accepting the invitation to establish a link with the event node server, and establish a link with each device accepting the invitation; and

[20.2]	a plurality of devices configured to receive an invitation to establish a link with an event node server in response being included in a projection of nodes of the multidimensional personal information network, transmit a response accepting the invitation to establish a link with the event node server, and receive information about the situation from the event node server.
--------	---

CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Petition for *Inter Partes* Review complies with the type-volume limitation of 14,000 words, comprising 13,731 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Petition for *Inter Partes* Review complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jonathan Tuminaro/

Jonathan Tuminaro
Registration No. 61,327
Counsel for Petitioner Meta Platforms, Inc.

Date: February 27, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600

CERTIFICATE OF SERVICE (37 C.F.R. §§ 42.6(e), 42.105(a))

I certify that the above-captioned **PETITION FOR *INTER PARTES***
REVIEW FOR U.S. PATENT NO. 8,332,454 and associated Exhibits 1001-1017
were served in their entireties upon the Patent Owner on February 27, 2024, via
FedEx® Express at the following addresses:

HALEY GUILIANO LLP
75 Broad Street, Suite 1000
New York, NY 10004
Patent Owner's Correspondence Address of Record for U.S. Patent No. 8,332,454

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jonathan Tuminaro/

Jonathan Tuminaro
Registration No. 61,327
Counsel for Petitioner Meta Platforms, Inc.

Date: February 27, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600