
Meta Platforms, Inc. v. SitNet, LLC

IPR2024-00530 (U.S. Patent No. 9,877,345)

Petitioner's Demonstratives

June 10, 2025

Instituted Grounds

IPR2024-00530 ('345 Patent)		
Claims Challenged	Basis	Applied References
1, 3-8, 10-13, 15, 16	35 U.S.C. § 103(a)	Gage (EX1005)
2, 9, 14	35 U.S.C. § 103(a)	Gage + Mitchell (EX1013)
1, 3, 4, 6-8, 10-13, 15	35 U.S.C. § 103(a)	Shida (EX1006)
2, 5, 9, 14, 16	35 U.S.C. § 103(a)	Shida + Sinha (EX1007)

Agenda

I. Issues Raised in SitNet's Patent Owner Response

- A. Dispute focuses on “Situational Network” and “Situation Authority” (See Claim 13)
- B. The '345 patent's disclosure
- C. Gage's teachings
- D. Shida's teachings

II. SitNet's Motion to Amend and Substitute Claims

- A. Overview of the Substitute Claims
- B. Claim Construction – “Event Node”
- C. The Substitute Claims are Ineligible under 35 U.S.C. § 101
- D. The Substitute Claims are Ineligible under 35 U.S.C. § 103
 - 1. The Gage-Issa Combination
 - 2. The Shida-Kraft Combination

Disputed Issues – Gage’s Teachings

'345 Patent – Independent Claim 13

IPR2024-00530 ('345 Patent) – Claim 13

[13.P] A system for accessing situation related information, the system comprising:

[13.1] a central server, corresponding to a **situation authority**,

[13.2] configured to receive an indication of an occurrence of a situation,

[13.3] **form a situational network** related to the occurrence of the situation with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network,

[13.4] present a roll call query to each of the plurality of participant devices soliciting a reply related to a status of the participant,

[13.5] receive a status response from one or more of the participants, and aggregate the status responses from responsive participants into a roll call list;

[13.6] and a database corresponding to the central server for storing the responses and the roll call list.

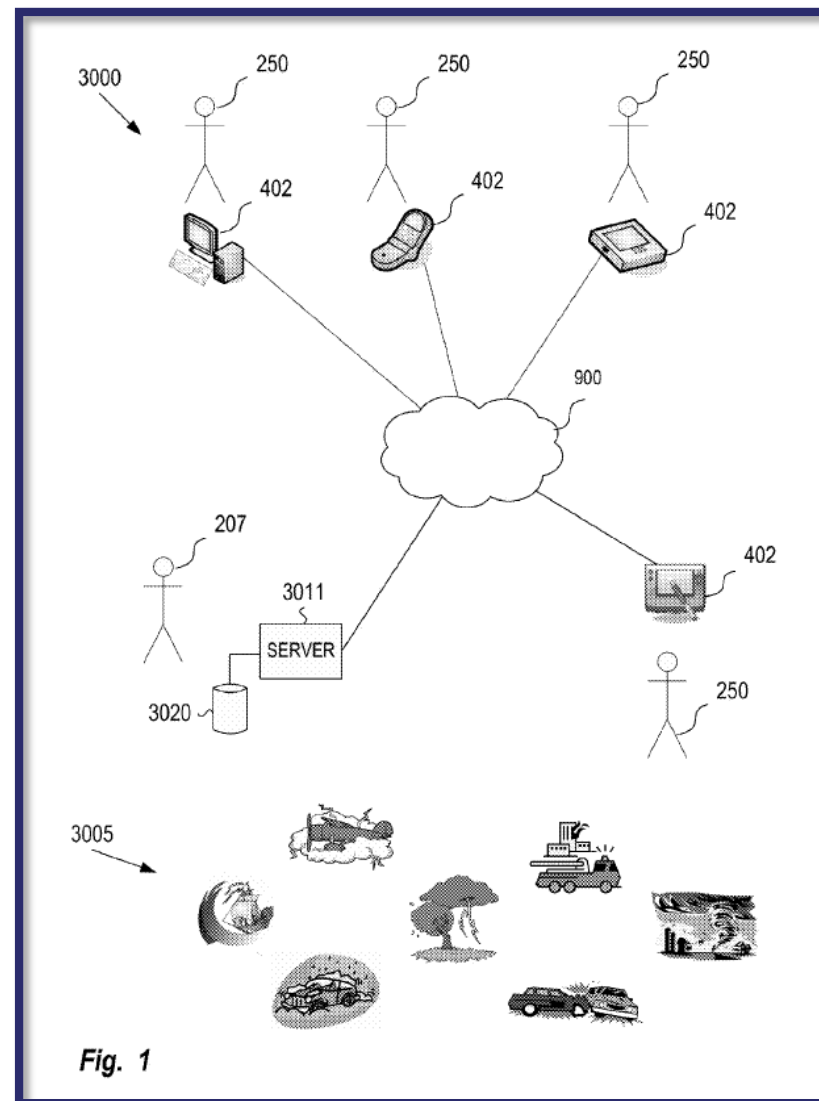
Disclosure of “Situational Network” and “Situation Authority”

Referring generally to FIG. 1, a situational network 3000 is created when an occurrence or expected occurrence of an event or situation 3005 causes connections, also referred to as links, to be established between, within or among a set of participants 250, 207. The situational network allows the participants 250, 207 to interact and exchange information over connections to or through a computer network 900 regarding the event or situation 3005. Some or all of the participants included in the situational network (SitNet) 3000 may have no prior knowledge of or connection or contact with each other or other participants of the situational network through any other type of social network or personal interactions.

'345 Patent, EX1001, 4:3-15, FIG. 1.

In the context of the situational network 3000, the participants may include external entities 207, also called situation authorities, central authorities or trusted providers, that generally are able to aggregate and provide comprehensive information related to the situation. Situation authorities

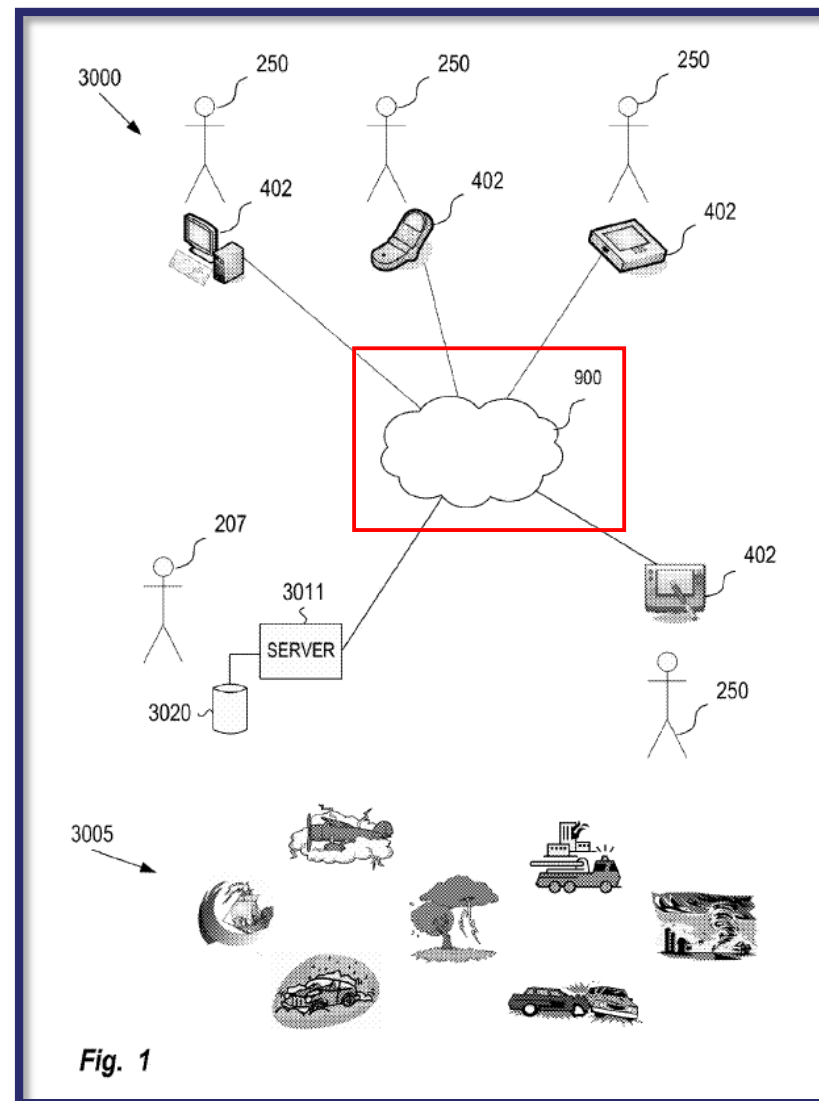
'345 Patent, EX1001, 4:16-20.



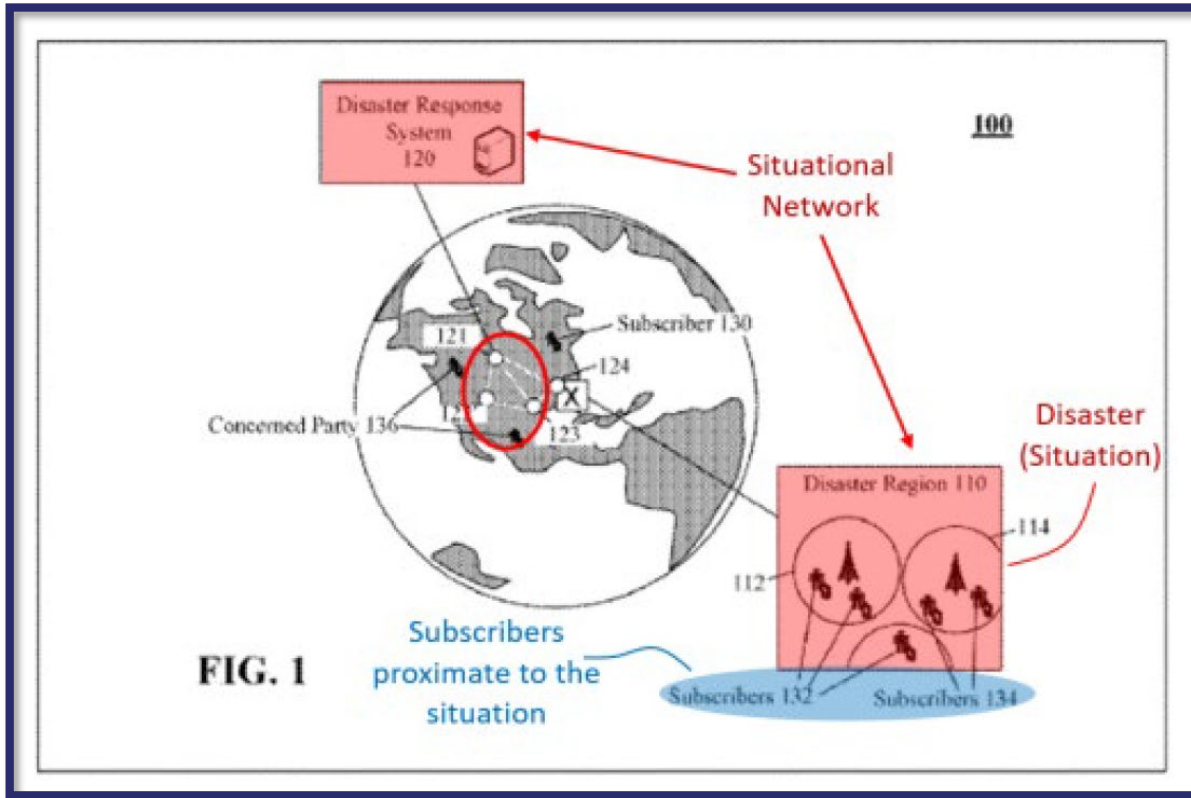
Disclosure of “Situational Network” and “Situation Authority”

The computer network 900 may be implemented with a variety of hardware platforms. For example, the computer network 900 may be implemented using the IEEE 802.3 (Ethernet) or IEEE 802.11 (wireless) networking technologies, either separately or in combination. In addition, the computer network 900 may be implemented with a variety of communication tools. For example, the computer network 900 may be implemented using the well-known TCP/IP suite of protocols. The Internet and some corporate intranets are examples of computer networks that use the technologies and standards described above.

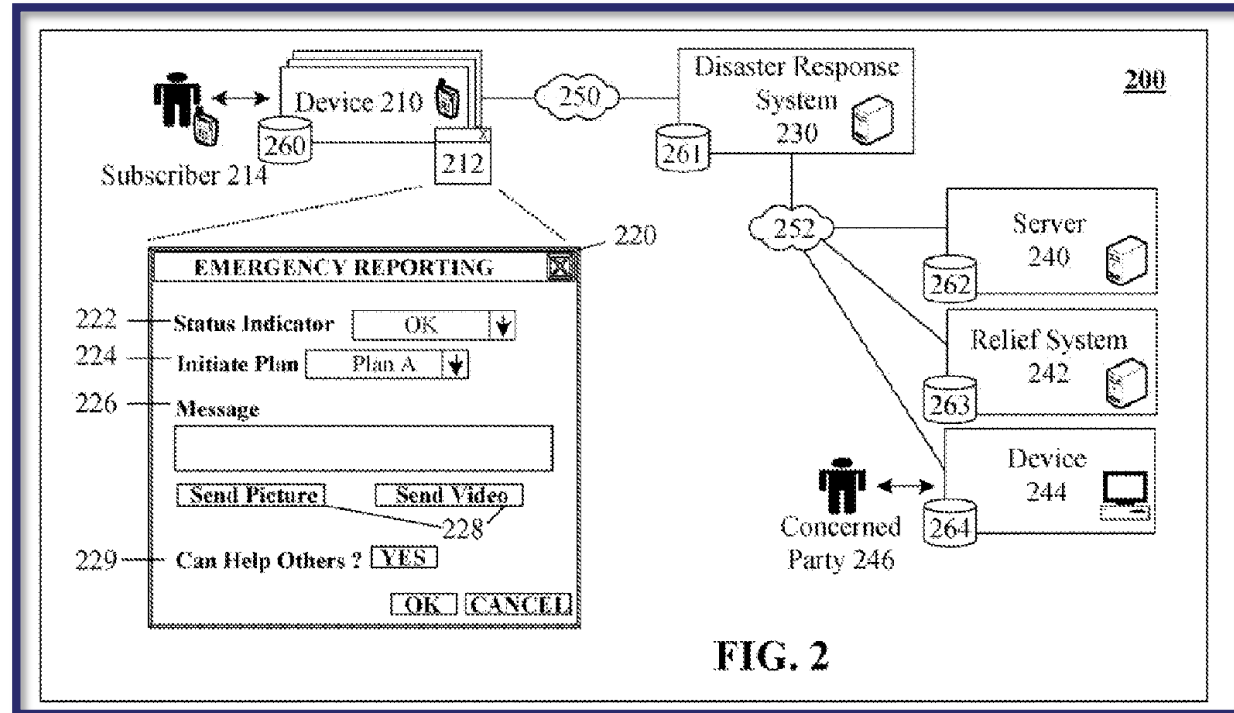
'345 Patent, EX1001, 14:1-11, FIG. 1 (annotated).



Gage Teaches a Situational Network

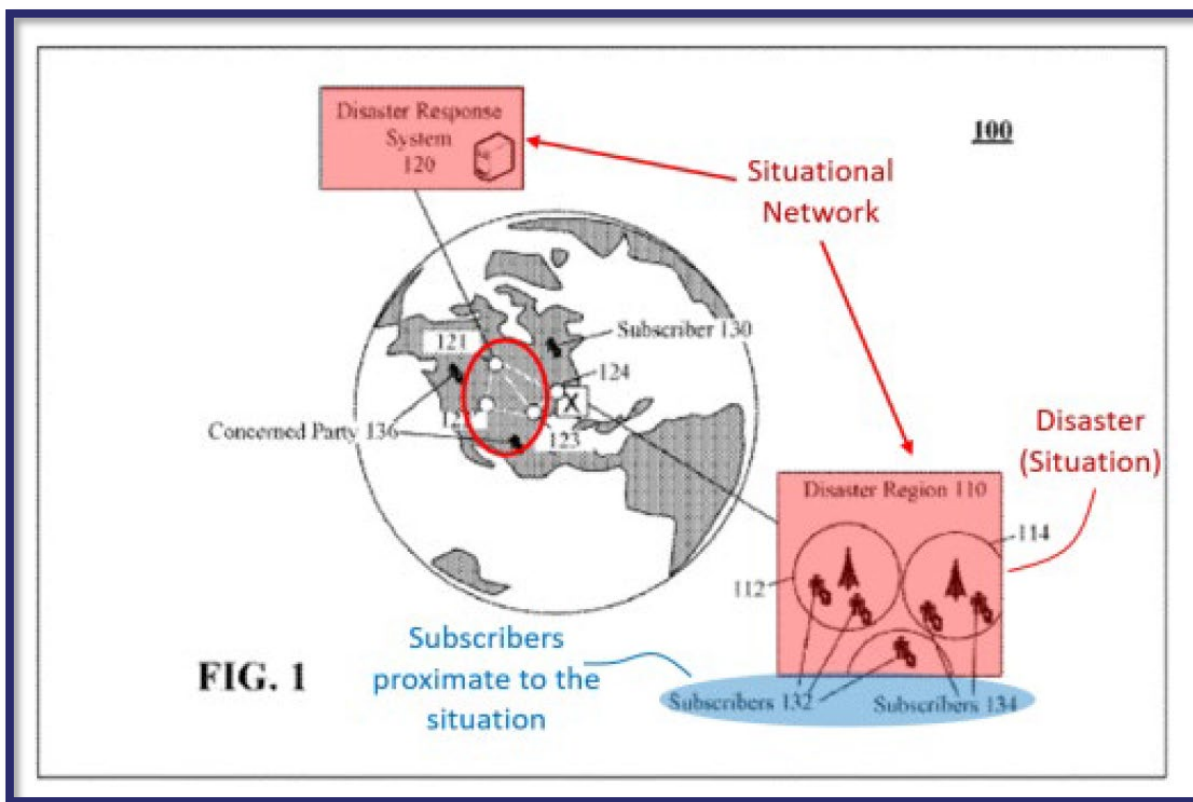


Gage, EX1005, FIG. 1 (annotated).



Gage, EX1005, FIG. 2.

Gage Teaches a Situational Network



Gage, EX1005, FIG. 1 (annotated).

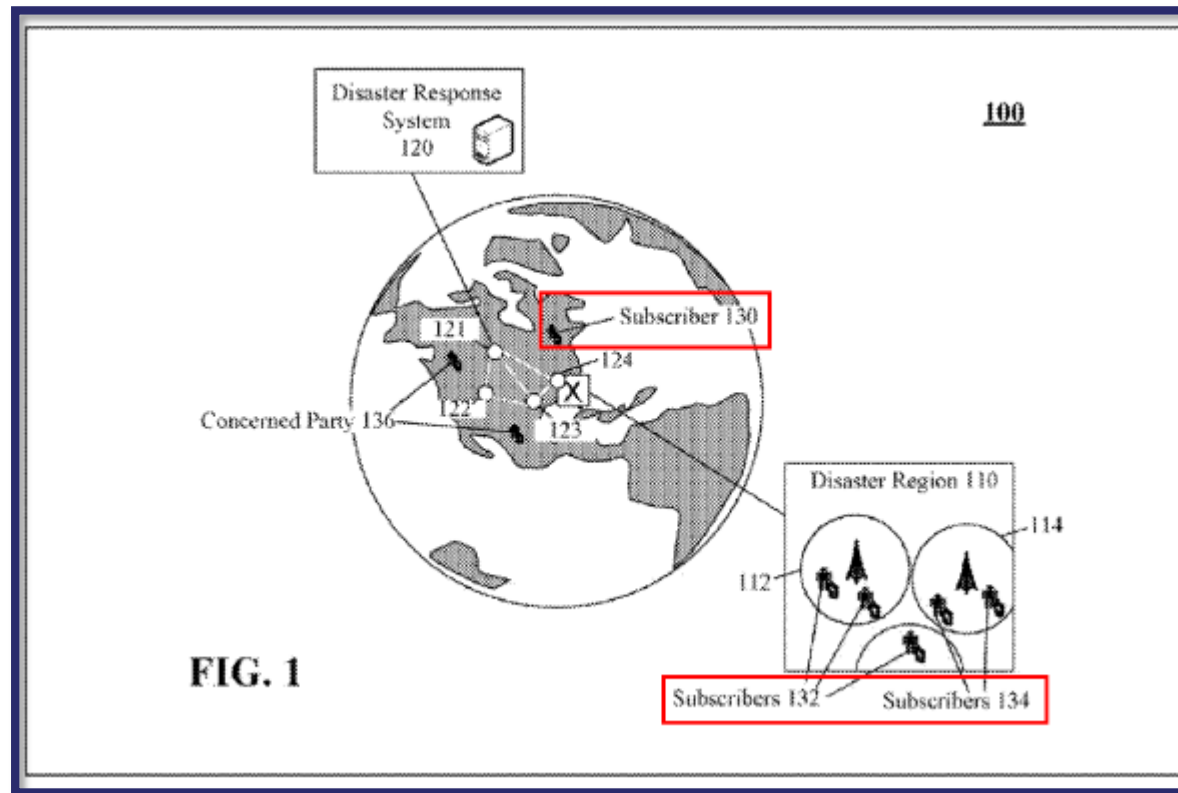
Gage forms a situational network (i) in response to detecting a disaster with (ii) devices “proximate to a disaster area”

[0009] More specifically, when a disaster is detected, mobile devices of subscribers can be queried for location and wireless connectivity by a centrally located disaster response system. When a subscriber is away from a disaster area, this information can be recorded and it can be presumed that the subscriber is alright. When a subscriber is proximate to a disaster area, the subscriber’s device can be queried for a status indicator and for an optional user provided message. This status indicator and message can be provided at any time by the subscriber, who is not forced to fight for a communication connection with the disaster response system during a time where dedicated mobile communication channels can be difficult to obtain. Instead, a user can enter their status indicator and optional message, which is thereafter automatically conveyed to the disaster response system using either a polling or a pushing methodology.

Gage, EX1005, ¶[0009].

Gage Teaches a Situational Network

Gage forms a situational network with participant devices (subscribers 132, 134) determined to be geographically proximate to a situation (disaster region 110).



Gage, EX1005, FIG. 1 (annotated).

Gage Teaches a Situational Network

Gage describes dynamically establishing
ad hoc networks

[0025] In one embodiment, multiple communication/information transmission options can be established to enable subscribers 130-134 to communicate with system 120. For example, mobile telephony and push-to-talk (PTT) channels of mobile devices can both be used for sending status indicators to system 120. It is also contemplated that ad hoc networks can be dynamically established (i.e., through BLUETOOTH functionality of mobile telephones) to enable subscribers 130-134 to convey status and location information when wide area network (WAN) communications are unavailable. Local wireless data networks, such as WIMAX networks and WIFI networks can also be used for relaying status information to system 120, when other communication channels are unavailable. Moreover, it is contemplated that relief workers can deploy communication access points, such as WIFI access points, for the purpose of receiving situation status information from areas that are otherwise disconnected from system 120.

Gage, EX1005, ¶[0025].

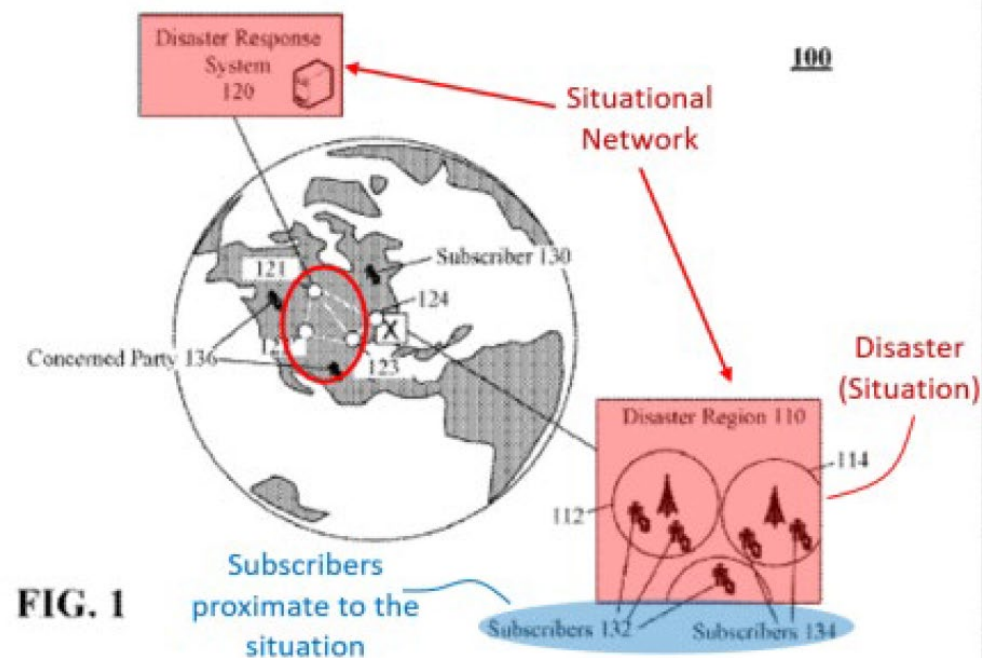
Gage Teaches a Situation Authority

Gage's "disaster response system" is a "*situation authority*"

8, Gage teaches that a subscriber device communicates a status indicator (*situation related information*) to the **disaster response system (a situation authority)** through a subscriber status reporting system that implements a network configured for use during disasters (*situational network*). EX1005, ¶19, *see also* ¶25. The disaster response system is a situation authority because **the disaster response system "detect[s] an occurrence of a disaster affecting a region" (*situation*), receives and "aggregate[s]" information related to the disaster, and provides the information to various participants in the network, such as disaster relief agencies and rescue personnel.** EX1005, ¶¶8-9, 21, 36, 45, claim 15; EX1003, ¶104. This is consistent with the '345 patent, which discloses that situation authorities are "generally [] able to aggregate and provide comprehensive information related to the situation" to "relief agencies" and "emergency responders." EX1001, 4:16-20, 25:61-26:25.

Pet., Paper 1, 34.

Even under SitNet's erroneous claim construction, Gage's "disaster response system" is external to the disaster region

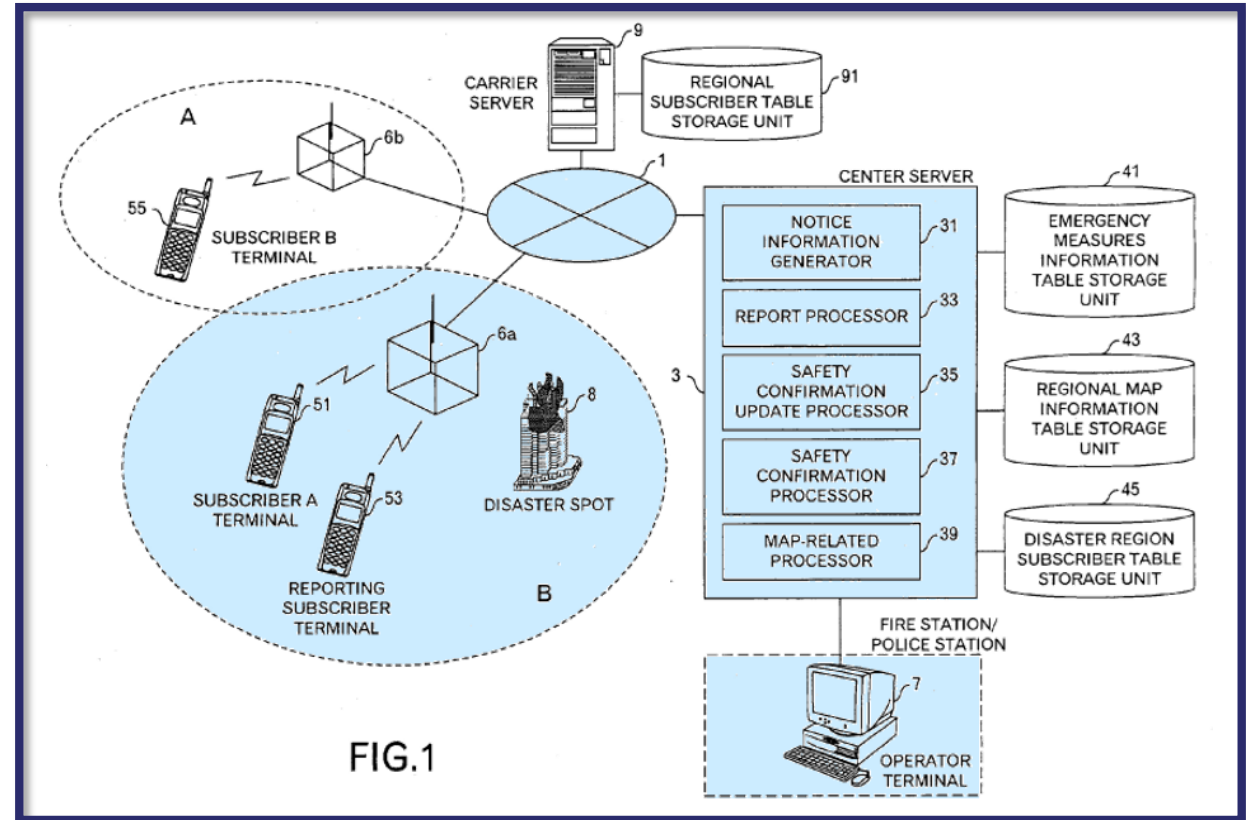


Gage, EX1005, FIG. 1 (annotated).

Disputed Issues – Shida's Teachings

Shida Teaches a Situational Network

Shida forms a situational network when Shida's center server establishes communications with subscriber terminals in a disaster region



Shida, EX1006, FIG. 1 (annotated).

Shida Teaches a Situational Network

[0046] Besides, the notice information generator 31 retrieves the disaster region subscriber table stored in the disaster region subscriber table storage unit 45 by using the received reporting subscriber ID from the operator terminal 7. The notice information generator 31 acquires the data of the subscribers (subscribers to be notified) who should be informed of the occurred disaster (step S43). Concretely, the subscribers to be notified are subscribers who exist in the disaster occurring region. That is, the notice information generator 31 reads out the data of the column 207 of the subscriber ID in FIG. 6 corresponding to the reporting subscriber ID received from the operator terminal 7. Then, the notice information generator 31 generates notice information to be broadcast, which includes the information associated with the map as the processing result of the processing associated with the map (step S19), the emergency measures information obtained at the step S41, and the safety confirmation necessity flag, and transmits it to the subscribers to be notified, who are specified in the step S43.

Shida forms a situational network in response to detecting a disaster

The notice information to be broadcast includes general information of this disaster such as the kind of disaster and the degree of the emergency. The mobile communication network system distributes the notice information to be broadcast from the center server 3 to the subscriber to be notified (step S47). The subscriber terminal of the designated subscriber receives the broadcast notice information from the mobile communication network system, and displays it on the display device (step S49).

Shida, EX1006, ¶[0046] continued.

Shida, EX1006, ¶[0046].

Shida Teaches a Situational Network

Shida forms a situational network in response to detecting a disaster

[0048] The steps up to the step S49 are processings carry out even if the safety confirmation necessity flag is even “OFF” or “ON”. As a result, it becomes possible to transmit the disaster notice information to be broadcast, to the subscribers who seem to be influenced because they are around the disaster. Incidentally, it is also possible to narrow the subscribers to be notified further by another reference. Besides, though the above example pays attention only to the disaster occurring region, the carrier server 9 may extract not only the disaster occurring region but also the neighboring region, and may narrow the subscribers to those judged as being influenced later.

Shida, EX1006, ¶[0048].

[0050] In a case where the subscriber A terminal 51 judged in the step S51 that the subscriber did not move to another base station range, it judges whether the safety confirmation response was input (step S61). The processing returns to the step S51 if the safety confirmation response is not inputted. On the other hand, if the safety confirmation response was input, the subscriber A terminal 51 accepts the input, and transmits the safety confirmation response (step S63). For instance, the subscriber pushes “Safety” button or “Rescue request” button displayed on the display device of the subscriber A terminal 51 according to the disaster notice information. Or, another button may be provided in the subscriber A terminal 51. The mobile communication network system forwards the safety confirmation response from the subscriber A terminal 51 to the center server 3 (step S65). When the safety confirmation response is received, the safety confirmation update processor 35 of the center server 3 carries out the safety confirmation information updating processing (step S59).

Shida, EX1006, ¶[0050].

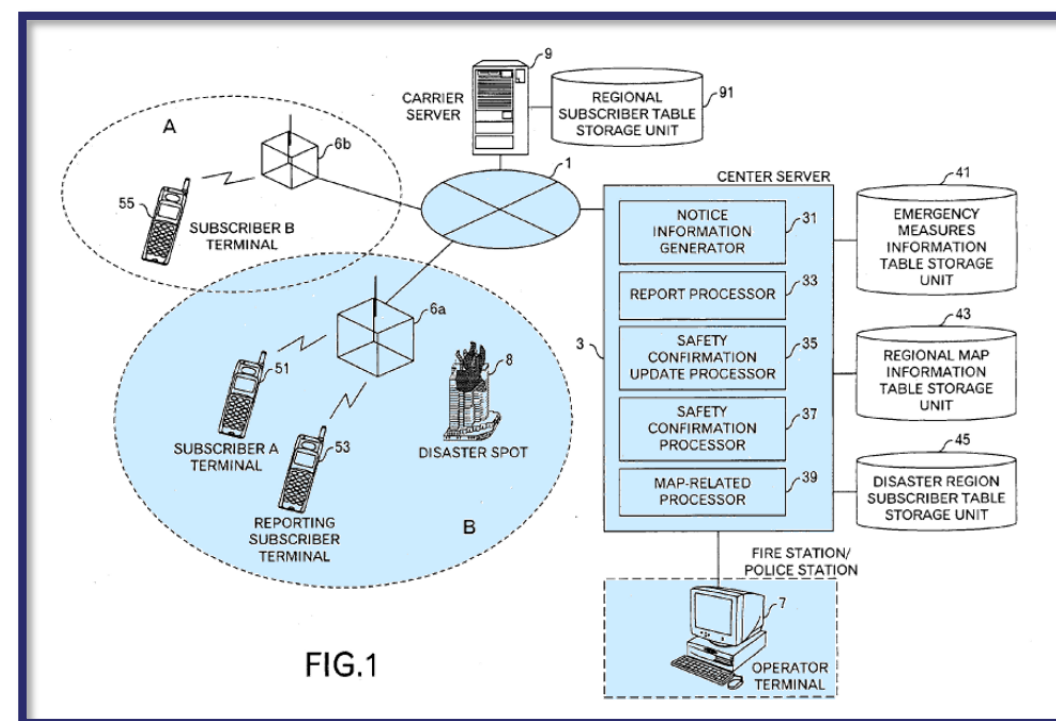
Shida Teaches a Situation Authority

Shida's "center server" is a "*situation authority*"

To the extent limiting, Shida teaches the preamble for the reasons provided for elements [1.P] and [1.2]. Indeed, as explained for claim 1 and below for claim 8, the method is performed by a subscriber terminal in the disaster occurring region that communicates a safety confirmation response (*situation related information*) to a center server (*a situation authority*) via *situational network*. EX1006, ¶50; EX1003, ¶178. The center server is a *situation authority* because the center server determines "the occurrence of the disaster," stores "emergency measures information," and is "connected to an operator terminal [] provided in facilities such as fire stations and police stations, for instance, to plan and instruct measures against the disaster etc." EX1006, ¶¶6, 30, 38, 46; EX1003, ¶178. As explained for

Pet., Paper 1, 59.

Even under SitNet's erroneous claim construction, Shida's "center server" is external to the disaster region



Shida, EX1006, FIG. 1 (annotated).

Shida Teaches a Situation Authority

Shida's "center server" is a "situation authority"

Q. So at the top of that page, it says "situation authority."

Do you see that?

A. Yes.

Q. And it provides a definition being an entity providing information concerning a situation.

Do you see that?

A. Yes.

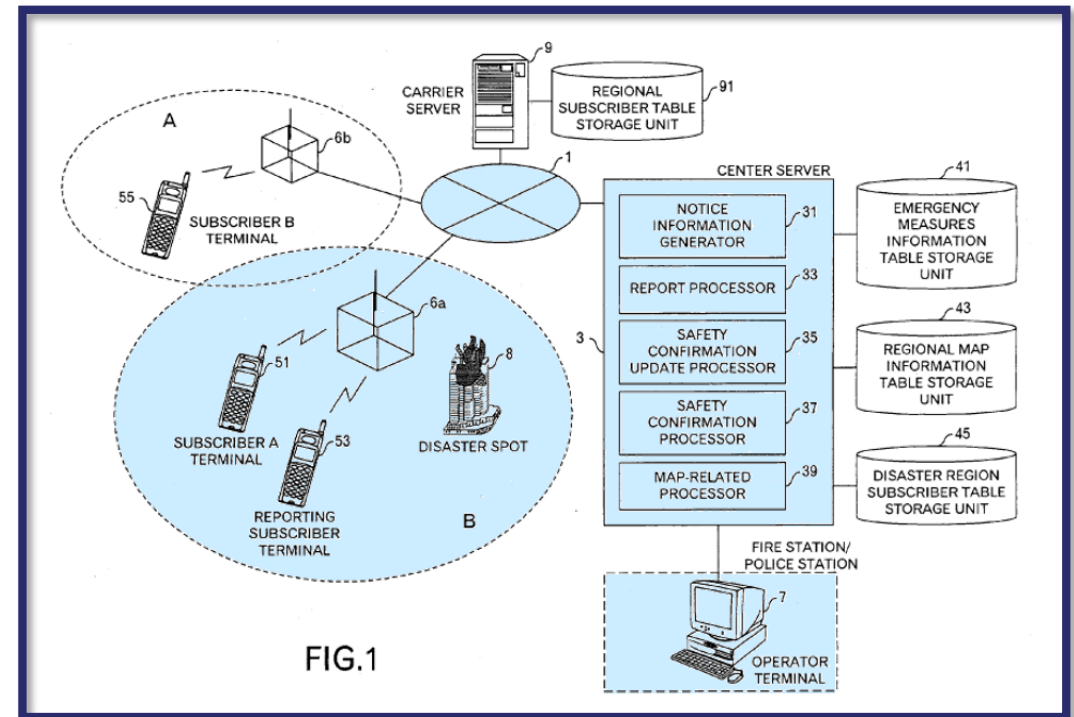
Q. Do you agree with that construction?

A. Yes.

Q. Would the entity in that definition be a server?

A. Yes.

Even under SitNet's erroneous claim construction, Shida's "center server" is external to the disaster region



Shida, EX1006, FIG. 1 (annotated).

Shida Teaches Claims 6 and 11

[Claim 6] The method of claim 1, wherein the status response includes a request for assistance and a location of the participant.

[Claim 11] The method of claim 8, wherein the status response includes a request for assistance and a location of the participant.

[0058] If the safety confirmation response from the subscriber terminal is “NG” which is a rescue request, the safety confirmation update processor 35 updates the safety confirmation status of that subscriber to “NG” in the disaster region subscriber table (step S107), and transmits warning including the subscriber’s information (subscriber ID etc.) and the position information (the existing region information after the movement) to the operator terminal 7 (step S109). The operator terminal 7 displays it on the display device when the warning is received from center server 3. With this configuration, the rescue operation can be begun earlier, and it becomes possible to suppress human damage due to the disaster to the minimum.

Shida, EX1006, ¶[0058].

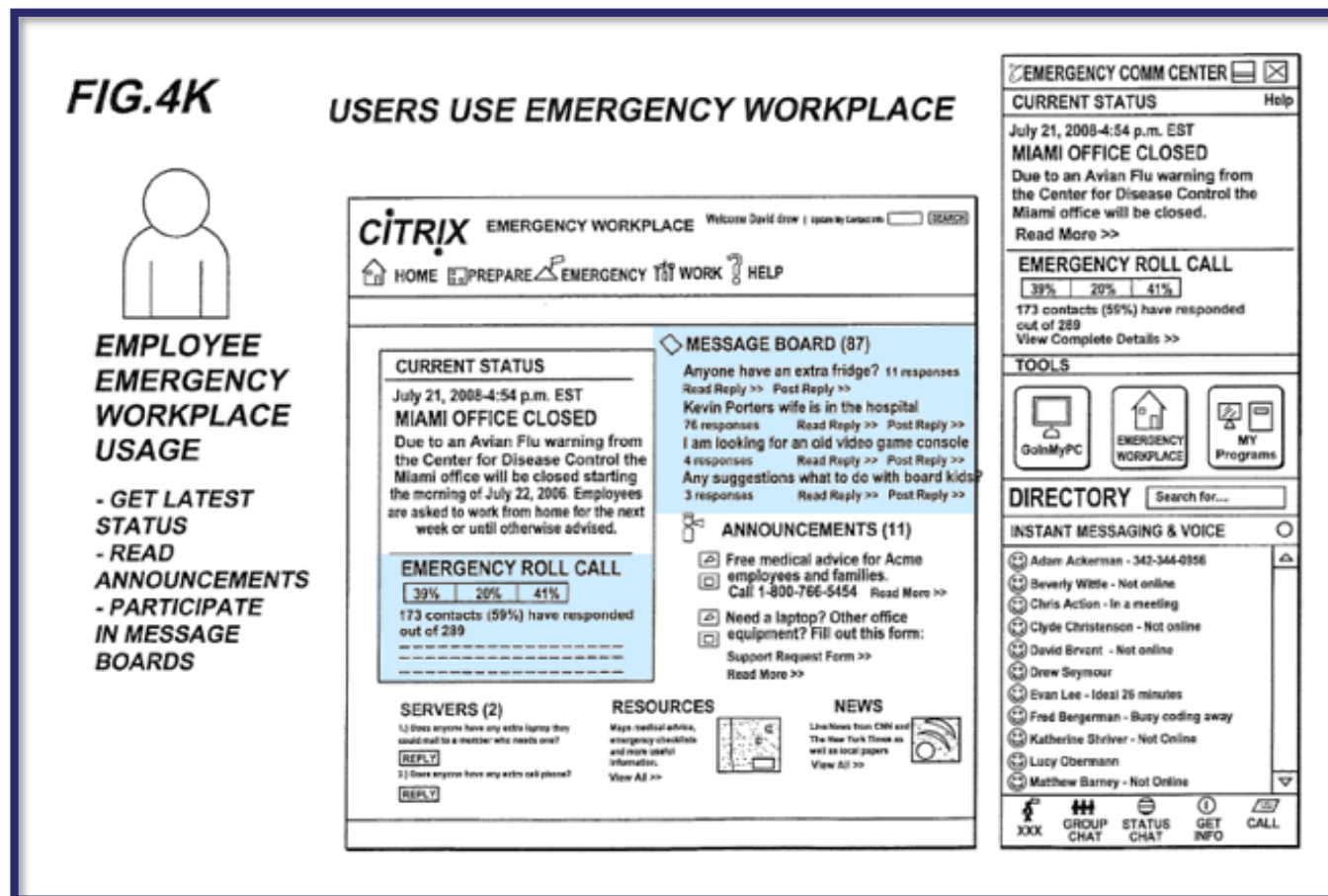
[0049] Next, a processing in a case where the safety confirmation necessity flag is ON will be explained by using FIG. 12 and FIG. 13. It is assumed that the subscriber terminal is the subscriber A terminal 51 here. The subscriber A terminal 51 judges whether the subscriber moved to another base station range (step S51). The subscriber A terminal 51 judges it from information of the beacon, which was sent by the base station and includes the region information. Incidentally, the subscriber A terminal 51 may judge whether the subscriber moved to not another base station but another base station group from a predetermined base station group. If it is judged that it moves to another base station range, the subscriber A terminal 51 transmits the positional switch request (it is also called the positional registration request) including the subscriber ID to the mobile communication network system (step S53). The processing shifts to step S69 after the step S51 in the subscriber A terminal 51. When the carrier server 9 of the mobile communication network system receives the positional switch request from the subscriber A terminal 51 (step S55), it retrieves the regional subscriber table in the regional subscriber table storage unit 91 by the subscriber ID, and registers the existing region ID after the movement correspondingly to the subscriber ID. Besides, the carrier server 9 retrieves the list of the subscribers who exist in the disaster occurring region (FIG. 4), judges whether or not the subscriber ID is included, and if the subscriber ID is included, transmits the subscriber ID and the subscriber position information (the existing region ID after the movement) to the center server 3 (step S57). In response to this, the safety confirmation update processor 35 of the center server 3 carries out the safety confirmation information updating processing (step S59). This processing will be described in detail later.

Shida, EX1006, ¶[0049].

Shida and Sinha Render Obvious Claims 5 and 16

[Claim 5] The method of claim 1, further comprising:
establishing an electronic message board for providing access to the roll call information related to the situation for individuals not participating in the situational network.

[Claim 16] The system of claim 13, wherein the central server is further configured to establish an electronic message board for providing access to the roll call information related to the situation for individuals not participating in the situational network.



Sinha, EX1007, FIG. 4K (annotated).

SitNet's Motion to Amend

'345 Patent – Substitute Claim 17

IPR2024-00530 ('345 Patent) – Substitute Claim 17

[17.P] A method of accessing situation related information, the method comprising:

[17.1] receiving an indication of an occurrence of a situation;

[17.2] forming a situational network related to the occurrence of the situation by establishing an event node hosted by an event node server within a N-dimensional social network and connecting the event node to a plurality of existing nodes within the N-dimensional social network, said plurality of existing nodes corresponding with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network;

[17.3] presenting a roll call query by the event node to each of the plurality of existing nodes corresponding with the plurality participant devices, said roll call query soliciting a reply related to a status of the participant;

[17.4] receiving at the event node a status response from one or more of the participants; and

[17.5] aggregating the status responses from responsive participants into a roll call list.

SitNet's Motion to Amend – Substitute Claims are Ineligible under § 101

The Substitute Claims are Ineligible under § 101

- SitNet does not address the USPTO's Guidance at all
- Step 2A, Prong One
 - The substitute claims describe a mental process and a method of organizing human activity.
 - Presenting a “roll call query” to geographically proximate participants and receiving and aggregating status responses are operations that can be performed in the human mind.
- Step 2A, Prong Two
 - The judicial exception is not integrated into a practical idea.
 - Forming a network to gather responses from a social network does not add any meaningful limitation to the claims.

The Substitute Claims are Ineligible under *Alice*

- Abstract Idea: “obtaining status responses from social network participants and compiling those responses into a list”
- The claims merely recite:

Collecting data	-receiving an indication of an occurrence -receiving a status response
Manipulating data	-forming a situational network -aggregating status responses
Presenting results	-presenting a roll call query -providing a roll call list

Alice Step One - The Substitute Claims are Directed to an Abstract Idea

- Dr. Rubin admitted that each step amounts to nothing more than “receiving,” “manipulating,” or “presenting” data

Q. So receiving an indication, that would be like receiving data about something, fair?

A. Yes.

Q. So when you're presenting a roll call, that's presenting information, fair?

A. Yes.

Q. So forming a situational network, that's creating logical connections. Is that fair?

A. Yes.

Q. In order to create logical connections, you have to manipulate data. Is that fair?

A. Yes.

Q. So when you're aggregating that data, that's sort of manipulating that data into a list. Is that fair?

A. Yes.

Rubin Depo. Tr., EX1027, 57:7-59:15.

Alice Step One - The Substitute Claims are Directed to an Abstract Idea

- Dr. Rubin admitted that each step amounts to nothing more than “receiving,” “manipulating,” or “presenting” data

Q. And when you're -- to establish an event node, that would be, again, I guess, forming logical object that has attributes?

A. Yes.

Q. That's manipulating data somehow to make those attributes, fair?

A. Yes.

Rubin Depo. Tr., EX1027, 59:9-15.

The Substitute Claims are Ineligible under § 101

Alice Step One - The Substitute Claims are Directed to an Abstract Idea

- The substitute claims are analogous to other ineligible claims.

<i>Trinity Info Media, LLC v. Covalent, Inc.</i> , 72 F.4th 1355 (Fed. Cir. 2023)	Claims directed to “creating a polling network” and “focused on ‘collecting information, analyzing it, and displaying certain results’”
<i>Sanderling Mgmt. Ltd. v. Snap Inc.</i> , 65 F.4th 698 (Fed. Cir. 2023)	Claims directed to “distributing a digital image processing function” were directed to the “distribution of information,” which “is an abstract idea.”
<i>Chamberlain Grp., Inc. v. Techtronic Inds. Co.</i> , 935 F.3d 1341 (Fed. Cir. 2019)	Claims for operating a “movable barrier,” e.g., a garage door, were directed to an abstract idea of “wirelessly communicating status information.”
<i>ChargePoint, Inc. v. SemaConnect, Inc.</i> , 920 F.3d 759 (Fed. Cir. 2019)	Claims directed to remote server communications through a wide area network for an electric vehicle charging station were directed to an abstract idea.

The Substitute Claims are Ineligible under § 101

Alice Step Two - The substitute claims implement the abstract idea using conventional networking technology and thus lack an inventive concept

Participants in the SitNet 3000 also include users 250, which are alternately referred to as individuals or members. Users 250 are connected via the situational network 3000 using devices 402 such as cell phones, PDA's, personal computers, network servers, PVR's, in-vehicle and portable navigation systems, or other devices generally known to those skilled in the art that enable connection to, from and through the computer network 900. There is at least one device 402 corresponding to each user 250, although a user 250 may use more than one device 402 to access and share information within the situational network 3000. The devices 402 may be connected into the situational network 3000 automatically, by requesting a connection, or by receiving an invitation to connect, each of which is described in greater detail below.

'345 Patent, EX1001, 4:33-47.

The '345 patent uses conventional user devices

in greater detail below. User devices, such as Personal Information Aggregators (PIAs), discussed in greater detail below, containing a GPS or other geographic positioning devices generally understood by those skilled in the art, can share location coordinates to determine if they are within a proximity limit that has either been preset within the device or predetermined by the user. In one embodiment, PIAs

'345 Patent, EX1001, 6:1-7.

The Substitute Claims are Ineligible under § 101

Alice Step Two - The substitute claims implement the abstract idea using conventional networking technology and thus lack an inventive concept

information. Furthermore, those skilled in the art will recognize that any of the available architectures (e.g., centralized, peer-to-peer, or combination thereof) may be used to form and sustain the various embodiments of the situational network described above, including the event relative (dynamic) SitNet or the proximity based SitNet. Certain architectures may be more applicable to certain embodiments. For example, the peer-to-peer architecture may naturally be used to form a proximity based SitNet described previously due to the inherent nature of the proximity SitNet. Nonetheless, those skilled in the art will recognize that a centralized or combination architecture may also be used for the proximity based SitNet depending on the particular situation and/or connections available.

'345 Patent, EX1001, 7:38-51.

The '345 patent uses conventional network architectures

Referring to FIG. 44, the situational network may also be formed using a decentralized architecture, such as a peer-to-peer network understood by one skilled in the art. In FIG.

'345 Patent, EX1001, 6:60-62.

The Substitute Claims are Ineligible under § 101

Alice Step Two - The substitute claims implement the abstract idea using conventional networking technology and thus lack an inventive concept

Those skilled in the art will recognize that a node of the NDSN 100 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. In addition, those skilled in the art will recognize that the nodes of the NDSN 100 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. In one embodiment, some users may have their nodes hosted in a common location, e.g., on a local or remote server.

'345 Patent, EX1001, 15:42-52.

The '345 patent uses conventional network nodes

Those skilled in the art will recognize that there are numerous well-known software and hardware technologies that may be utilized to implement the attributes of the users of the NDSN 100 and the attributes of the associations between the users.

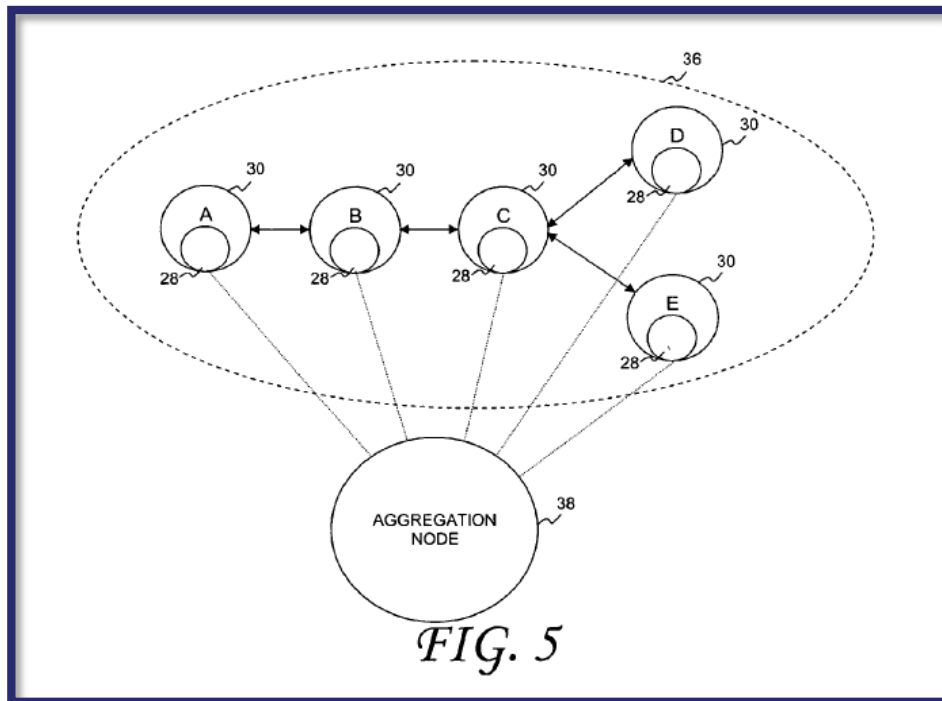
'345 Patent, EX1001, 16:32-36.

SitNet's Motion to Amend – Substitute Claims are Obvious under § 103

The Substitute Claims are Obvious under § 103

The Gage-Issa Combination

Issa's "aggregation node" teaches the claimed "event node" within an N-dimensional social network



Issa, EX1029, FIG. 5.

(12) **United States Patent**
Issa et al.

(54) **SYSTEM AND METHOD OF SHARING
CONTENT AMONG MULTIPLE SOCIAL
NETWORK NODES USING AN
AGGREGATION NODE**

(57)

ABSTRACT

The present invention generally relates to communication and controlled sharing of digital content among networked users, and is more particularly concerned with creation of an improved sharing network for relaying data among linked nodal members of a social network. An ad hoc network may be a hybrid P2P network that conforms to a virtual peer representation accessible as a single node from outside the given social network nodes. Members of a pre-existing social network may selectively activate embedded latent peers and link to an aggregation node to form a hybrid P2P network. Content may be shared in a controlled distribution according to level rights among participating network nodes. Playlists and/or specialized user interfaces may also be employed to facilitate content sharing among social network members of a virtual peer.

Issa, EX1029, Title, Abstract.

The Substitute Claims are Obvious under § 103

The Gage-Issa Combination

Issa's "aggregation node" teaches the claimed "event node" within an N-dimensional social network

One aspect of the present subject matter concerns features by which a hybrid peer-to-peer (P2P) network is used for sharing content in a pre-existing social network. Exemplary pre-existing or dynamically created social network technologies include Friend-Of-A-Friend (FOAF) social networks for controlled viral content distribution, social network circuit instances for defining live communication links among networked users, and social networks formed by any other suitable network-based communication technology, including e-mail, instant messaging, web-based communications, file and content sharing, audio communications including cellular and VoIP telephony, and the like. Members of a pre-

Issa, EX1029, 2:55-66.

In one particular embodiment related to such exemplary aspect, a method of sharing content among multiple network nodes in a pre-existing social network includes an initial step of forming a virtual peer. This process may include a first step of providing each network node with an embedded peer. A first network node then decides to establish a virtual peer for sharing content and activates a latent (or dormant) peer associated with such first network node. The first network node is then communicatively connected to an aggregation node, such as a proxy, supernode, central server or the like. A unique identifier is then established by either the first network node or the aggregation node and provides an identifier that enables other nodes in the network to identify the virtual peer and also join. The unique identifier also enables other nodes external to the network to view the virtual peer as a single node in the P2P content sharing network. The aggregation node also functions as a communication end-point for the virtual peer, thus making it possible for multiple social network nodes communicatively connected to the aggregation node to be addressed with a single request in a manner that is transparent to the participating network nodes.

Issa, EX1029, 3:5-25.

The Substitute Claims are Obvious under § 103

The Gage-Issa Combination

Issa's aggregation node and virtual peer functionality as implemented with Gage's disaster response system renders obvious establishing an "*event node hosted by an event node server.*" EX1028, ¶¶44-52. In response to the occurrence of a disaster, the combined system would have formed a situational network using the functionality described in Gage by establishing an aggregation node and virtual peer as described in Issa. EX1028, ¶49. This teaches an *event node* associated with the disaster. EX1005, ¶¶9, 19 40-45, Abstract; EX1028, ¶¶44-52. The combined Gage-Issa disaster response system connects to other nodes of an N-dimensional social network as described in Issa. *See* EX1029, FIG. 5, 12:16-13:59; *see also id.*, 1:28-53, 2:55-66, 8:60-9:20. These social network nodes would have corresponded to the geographically proximate subscriber devices described in Gage. EX1028, ¶¶49-50; Pet., 28-29. Thus, the combination of Gage and Issa renders obvious the amended portions of claim 17. And Gage discloses the non-amended elements of claim 1 for the reasons provided in the Petition. Pet., 22-33.

The Substitute Claims are Obvious under § 103

The Gage-Issa Combination

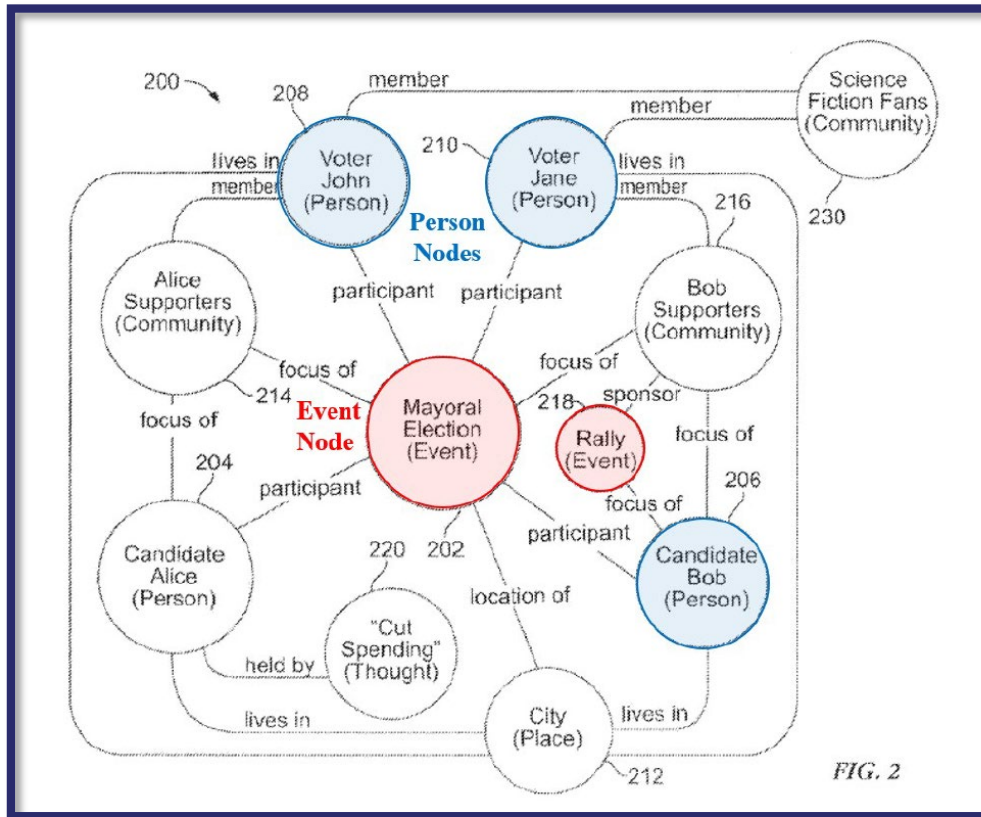
A POSA would have been motivated to combine Gage and Issa to provide a more-efficient process for obtaining and aggregating status indicator responses and providing those aggregated responses to better inform relief workers. EX1028, ¶34; EX1005, ¶¶7, 11, 21. A POSA looking to implement Gage's system would have sought an efficient way to aggregate disaster data, which would have led to a reference like Issa. EX1028, ¶34. Issa's framework of using an "aggregation node" and "virtual peer" to efficiently gather messages from nodes of a network, "provide efficient content sharing," and efficiently respond to content requests would have furthered Gage's goal of identifying the "greatest need of relief based upon subscriber status indicators and subscriber locations." EX1029, 13:40-59; EX1005, ¶¶7, 11; EX1028, ¶34. Thus, a POSA would have been motivated to combine Issa with Gage.

Further, Gage describes a second goal of providing status responses to "concerned parties." EX1005, Abstract, ¶¶2, 6-9, 19-20, 23, 37-38. "Concerned parties, such as family members, can be granted access to the Web site, through which they can look-up the last known location and situational status of the subscriber." EX1005, ¶37. A POSA would have recognized that a simple and efficient way of connecting to friends and family via a Web site would have been through a social network as described in Issa. EX1028, ¶35; EX1029, 1:28-53, 8:60-9:20; EX1005, ¶¶4, 46. A POSA would have been motivated to implement Issa's aggregation node and social-network interactions with Gage's disaster response system to quickly and efficiently notify friends and family. EX1028, ¶35; EX1029, 13:40-59; EX1005, Abstract, ¶¶2, 6-8, 19-20, 23, 37-38. Additionally, Gage provides "media" and "textual" content to concerned parties, and Issa provides an efficient way of distributing such content via a social network. EX1005, Claims 8-9; EX1029, 13:40-59 (Issa providing the benefits of "efficient content sharing" and "distributing digital content within a social network"), 16:17-23; EX1028, ¶36.

The Substitute Claims are Obvious under § 103

The Shida-Kraft Combination

Kraft's "event node" teaches the claimed "event node" within an N-dimensional social network



Kraft, EX1030, FIG. 2 (annotated).

(12) **United States Patent**
Kraft et al.

(54) **WORLD MODELING USING A**
RELATIONSHIP NETWORK WITH
COMMUNICATION CHANNELS TO
ENTITIES

(57)

ABSTRACT

Systems and methods for information retrieval and communication employ a world model. The world model is made up of interrelated **entity models**, each of which corresponds to an entity in the real world, such as a person, place, business, other tangible thing, community, **event**, or thought. Each entity model provides a communication channel via which a user can contact a real-world person responsible for that entity model. Entity models also provide feedback information, **enabling users to easily share their experiences and opinions of the corresponding real-world entity**.

Kraft, EX1030, Title, Abstract.

The Substitute Claims are Obvious under § 103

The Shida-Kraft Combination

Kraft's "event node" teaches the claimed "event node" within an N-dimensional social network

Node 202 represents the event, in this example a mayoral election. The candidates (Alice and Bob) are represented as nodes 204 and 206, respectively, each of which has a "participant" relationship to election node 202. Other participants in the election include voter Joe (node 208) and voter Jane (node 210). The election takes place in a city (node 212). Candidates Alice and Bob, as well as voters Joe and Jane, all live in this city, as indicated by "lives in" relationships connecting each of nodes 204, 206, 208, 210 to city node 212.

As noted above, the world model stored in world model data store 162 is made up of interrelated entity models 164. Any type of real-world entity can be represented by an entity model 164. Each entity model is advantageously implemented as a data structure that provides access to information about a real-world entity that the node represents. Many types of real-world entities can be represented, including people, places, other tangible things, events, communities, businesses, and thoughts.

In some embodiments, each entity model is assigned to one of a predetermined set of categories, where each category represents a class of entities (or abstractions) existing in the real world. For example, in embodiments described herein, seven categories are used: (1) Person, for entity models representing individual human beings; (2) Businesses, for entity models representing commercial enterprises, non-profit organizations, or individuals acting as providers of goods or services; (3) Place, for entity models representing geographic locations such as buildings, cities, states, nations, and so on; (4) Thing, for entity models representing other tangible things such as consumer goods; (5) Community, for entity models representing groups of people united by a common interest or characteristic; (6) Thought, for entity models representing a tangible expression of an opinion, idea, or other mental product; and (7) Event, for entity models representing occurrences such as elections, natural disasters, sports events, and so on.

Kraft, EX1030, 9:50-66.

The Substitute Claims are Obvious under § 103

The Shida-Kraft Combination

Kraft's node framework as implemented with Shida renders obvious the claimed forming of a situational network by establishing an event node. EX1028, ¶¶66-68. Kraft's creation of an "event node" that corresponds to a "natural disaster" teaches the claimed "establishing an event node." EX1030, 8:26-44, 8:57-62, 9:42-49, 9:65-66; EX1028, ¶66. The Shida-Kraft combination would host such an event node on a server, such as Shida's center server as implemented with Kraft's functionality. EX1006, ¶¶27, 38, 47; EX1030, 4:64-5:12, 7:39-58. Shida describes forming a situational network as explained in the Petition. Pet., 52-55.

The combined system would be implemented in a "conventional social network," as taught by Kraft. EX1030, 10:22-30. Kraft's event node connects to other "person" nodes or "person entity models" that would operate in a conventional social network. EX1030, 10:22-41. For example, Kraft describes connecting participant nodes to an event node, where the participant nodes correspond to individuals experiencing the event that corresponds to the event node. EX1030, FIG. 2, 8:39-48. The Shida-Kraft combination therefore teaches connecting an event node to a plurality of existing nodes in an N-dimensional social network. EX1028, ¶67; EX1027, 43:18-44:3.

The Substitute Claims are Obvious under § 103

The Shida-Kraft Combination

A POSA would have been motivated to combine Shida and Kraft to provide an efficient way to continuously gather and update information related to the disaster to further aid in confirming the safety of affected individuals. EX1028, ¶¶57-60, 69-70. For example, Shida describes a subscriber that reports a disaster, who may provide “voice” data or an “image file.” EX1006, ¶¶33, 38. A POSA looking to implement Shida’s system would have sought references describing an efficient way to manage this media content. EX1028, ¶57. Kraft provides an efficient way to manage and update social network media content or statuses related to an event like a “natural disaster.” EX1030, FIG. 2, 8:39-44, 9:65-66, 10:25-30. Specifically, Kraft’s node framework allows users to link content such as images, audio, or video related to a “real-world entity” “to easily share their experiences and opinions.” EX1030, 2:29-31, 2:43-46, 6:61-65, 11:58-63.

A POSA would have recognized that Kraft’s node framework and entity models—including an entity model corresponding to a “natural disaster” event node—would have provided an efficient way of gathering, organizing, and updating received responses along with media content from individuals impacted by a disaster. EX1030, 2:29-31, 2:43-46, 9:65-66, 11:58-63; EX1028, ¶58-59. Thus, a POSA would have been motivated to combine Kraft with Shida. EX1028, ¶¶58-59.

Independent Claims

'345 Patent – Independent Claim 1

IPR2024-00530 ('345 Patent) – Claim 1

[1.P] A method of accessing situation related information, the method comprising:

[1.1] receiving an indication of an occurrence of a situation;

[1.2] ***forming a situational network related to the occurrence of the situation*** with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network;

[1.3] presenting a roll call query to each of the plurality of participant devices soliciting a reply related to a status of the participant;

[1.4] receiving a status response from one or more of the participants; and

[1.5] aggregating the status responses from responsive participants into a roll call list.

'345 Patent – Independent Claim 8

IPR2024-00530 ('345 Patent) – Claim 8

[8.P] A method of providing situation related information to ***a situation authority via a situational network***, the method comprising:

[8.1] receiving, by a participant device, a roll call query soliciting a reply related to a status of a participant based on the participant being determined, by the ***situation authority***, to be geographically proximate to the situation;

[8.2] receiving, by the participant device, a selection of a status response from the participant; and

[8.3] sending the status response to the central authority, wherein the status response is included in a roll call list.

'345 Patent – Independent Claim 13

IPR2024-00530 ('345 Patent) – Claim 13

[13.P] A system for accessing situation related information, the system comprising:

[13.1] a central server, corresponding to a **situation authority**,

[13.2] configured to receive an indication of an occurrence of a situation,

[13.3] **form a situational network** related to the occurrence of the situation with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network,

[13.4] present a roll call query to each of the plurality of participant devices soliciting a reply related to a status of the participant,

[13.5] receive a status response from one or more of the participants, and aggregate the status responses from responsive participants into a roll call list;

[13.6] and a database corresponding to the central server for storing the responses and the roll call list.

Undisputed Issues

IPR2024-00530 ('345 Patent)

- ✓ Gage and Shida disclose receiving an indication of an occurrence
- ✓ Gage and Shida disclose presenting a roll call query that solicits a status response
- ✓ Gage and Shida disclose receiving a status response
- ✓ Gage and Shida disclose aggregating received status responses into a roll call list

Disputed Issues – Claim Construction

Claim Construction of “Situational Network”

District Court’s Construction

“a network created in response to an event or situation”

Claim Construction of “Situational Network”

SitNet concedes that elements of a pre-established network can be formed into a situational network

Each of the above defines a “network” as a system of *interconnected elements* that transmits information (i.e. data). Ex. 2009 ¶ 52. As the interconnection between elements defines a network, a network is created by connecting elements. *Id.* ¶¶ 52-55. Thus, a network is created when at least two elements are connected to each other. *Id.* The new network may be derived from an old network by establishing a new connection incorporating a new element into the system. *Id.* But regardless of whether the new network is being created from an existing network or a collection of previously unconnected elements, the act of creating a network requires establishing a new connection to incorporate at least one new element into the system. *Id.*

POR, Paper 14, 3.

Now, as SitNet even acknowledges, the situational network can be *derived from a pre-existing network*. POR at 3 (“The new network may be derived from an old network [].”). However, the “created in response” portion of the construction can only apply to a pre-existing network if something *new* is added to the system. Specifically, “by establishing a *new connection* incorporating a *new element* into the system.” *Id.* (emphasis added). Without adding a new connection/new element to a pre-existing network, one would be left with just the old, pre-existing network that is not “created in response” to an event or situation.

PO Sur-Reply, Paper 21, 2-3.

Claim Construction of “Situational Network”

The plain language of the claims
does not support SitNet’s additional limitations

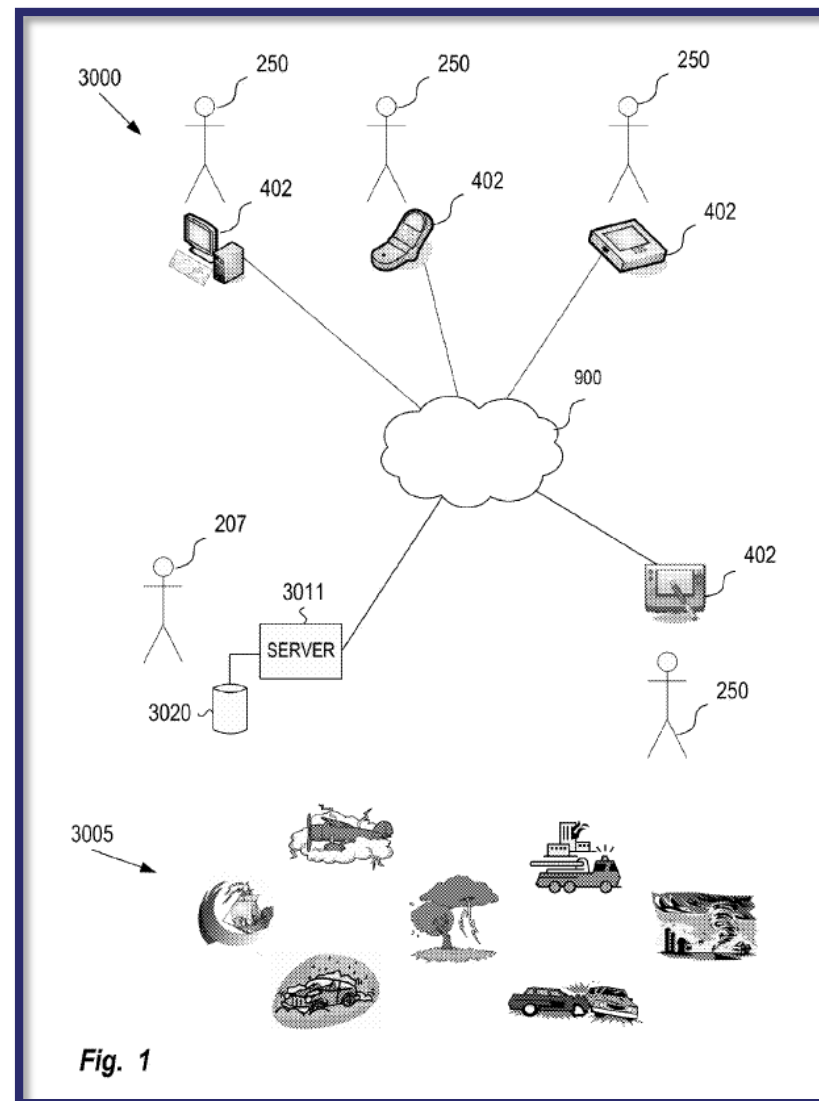
[1.2] ***forming a situational network related to the occurrence of the situation*** with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network;

Claim Construction of “Situational Network”

The '345 Patent's specification describes forming a “situational network” from nodes of a pre-existing network

Referring generally to FIG. 1, a situational network **3000** is created when an occurrence or expected occurrence of an event or situation **3005** causes connections, also referred to as links, to be established between, within or among a set of participants **250**, **207**. The situational network allows the participants **250**, **207** to interact and exchange information over connections to or through a computer network **900** regarding the event or situation **3005**. Some or all of the participants included in the situational network (SitNet) **3000** may have no prior knowledge of or connection or contact with each other or other participants of the situational network through any other type of social network or personal interactions.

'345 Patent, EX1001, 4:3-15, FIG. 1.



Claim Construction of “Situational Network”

SitNet’s construction here is inconsistent with the one it proposed before the District Court

SitNet’s District Court Construction:

a network that is a subset of a larger network, comprising member nodes, formed in response to an event or situation

Markman Order, EX2007, 2-4.

Claim Construction of “Situational Network”

Dr. Rubin concedes that elements of a pre-established network can be formed into a situational network

Q. If there's a device that's part of an existing network --

A. Okay.

Q. -- could that device be included in the formation of a situational network?

A. Yes.

Rubin Depo. Tr., EX1027, 56:2-7.

In order for that device that's part of an existing network, in order for it to be included in the formation of a situational network, that device would have to have a new connection created. Is that fair?

A. Yes.

Rubin Depo. Tr., EX1027, 56:11-16.

Claim Construction of “Situation Authority”

District Court’s Construction	PO SitNet’s Additional Limitations
“an entity providing information concerning a situation”	The situation authority must be external to a situational network

Claim Construction of “Situation Authority”

The plain language of the claims
does not support SitNet’s additional limitations

[Claim 4] The method of claim 1, wherein the situational network is formed by a ***situation authority***.

[8.P] A method of providing situation related information to ***a situation authority via a situational network***, the method comprising:

[8.1] receiving, by a participant device, a roll call query soliciting a reply related to a status of a participant based on the participant being determined, by the ***situation authority***, to be geographically proximate to the situation;

Claim Construction of “Situation Authority”

The plain language of the claims
does not support SitNet’s additional limitations

[13.1] a central server, corresponding to a **situation authority**,

[13.2] configured to receive an indication of an occurrence of a situation,

[13.3] **form a situational network** related to the occurrence of the situation with a plurality of participant devices determined to be geographically proximate to the situation, each of the participant devices corresponding to a participant in the situational network,

Claim Construction of “Situation Authority”

The specification does not require a “situation authority” to be external *to a situational network*

^ In the context of the situational network 3000, the participants may include external entities 207, also called situation authorities, central authorities or trusted providers, that generally are able to aggregate and provide comprehensive information related to the situation. Situation authorities

'345 Patent, EX1001, 4:16-20.

Claim Construction of “Situation Authority”

SitNet’s expert agreed that district court’s construction does not require the situation authority to be external to a situational network

Q. That definition from the District Court is an entity providing information concerning a situation, right?

A. Right.

Q. Do you agree with that construction?

A. Yes.

Q. That construction does not require the situation authority to be external, right?

A. It doesn't say anything about that.

Rubin Depo. Tr., EX1027, 72:10-18.

Q. So at the top of that page, it says "situation authority."

Do you see that?

A. Yes.

Q. And it provides a definition being an entity providing information concerning a situation.

Do you see that?

A. Yes.

Q. Do you agree with that construction?

A. Yes.

Q. Would the entity in that definition be a server?

A. Yes.

Rubin Depo. Tr., EX1027, 35:11-36:1.

Claim Construction of “Event Node”

District Court’s Construction

Needs no construction.

Claim Construction of “Event Node”

Dr. Rubin says an event node is simply an “object with attributes that defines [an] event.”

Q. And an event node would be an object with attributes that defines the event; is that fair?

A. Yes.

Q. Those objects are simply data structures, right?

A. That's what they are.

Rubin Depo. Tr., EX1027, 33:2-7, 41:17-20.

Appendix Slides

Shida and Sinha Render Obvious Claims 5 and 16

[Claim 5] The method of claim 1, further comprising:
establishing an electronic message board for providing access to the roll call information related to the situation for individuals not participating in the situational network.

[Claim 16] The system of claim 13, wherein the central server is further configured to establish an electronic message board for providing access to the roll call information related to the situation for individuals not participating in the situational network.

[0134] FIG. 4K depicts an embodiment of the emergency workplace portion of the BCM web portal. In one embodiment, a user can access the emergency workplace from the sidebar or employee communications center. In the employee emergency workplace user interface, an employee reviews the current status of the emergency or disruptive information (for example, as it is updated by ERT personnel). The employee reviews announcements and participate (post and reply) in message boards. The user interface also displays information for the employee regarding the employee roll call, with links to surveys, resources and news. The employee can take surveys to provide information and status to the BCM system for updating reports and for tracking people and resources.

Sinha, EX1007, ¶[0134].

The Substitute Claims are Ineligible under § 101

Alice Step One - The Substitute Claims are Directed to an Abstract Idea

The passages cited in SitNet's Reply to the Opposition are not reflected in the substitute claims and do not demonstrate any unconventional system

A user might desire to work with a “projected” view, i.e., a subset of the nodes, of the NDSN 100. Such a desire might be based, for example, on a need to increase processing speed and reduce resource requirements such as CPU speed and memory size. A user can obtain a “projected” view of the NDSN 100, by employing the Request Projection use case 975 (see FIG. 13). Referring to FIG. 19, Node A and Node

'345 Patent, EX1001, 16:53-59.

A SitNet may be used to provide common travel routes to users. This is especially useful to users that are unfamiliar with the roadways in the area where they are traveling and a situation such as an accident or road construction is blocking their only known route through the area. By connecting to a SitNet with other users familiar with local roads, the user may learn of the most time efficient alternate routes around the situation. Users may also discover popular short cuts through a normal congested area. In one embodiment, a traffic accident or construction zone is associated with the event node of a SitNet. The event node is created by trusted provide, such as a traffic agency or state or local DOT. Pre-determined alternate routes may be stored in a database connected to a server associated with the host of the event node. A user is connected to the event node may be presented with alternate routes based on their current location and destination.

'345 Patent, EX1001, 24:46-53.

Thank you