

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

**DECLARATION OF DR. JEREMY COOPERSTOCK
IN SUPPORT OF PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

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Meta EX1026
IPR2024-00530
U.S. Patent No. 9,877,345

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I, Jeremy Cooperstock, hereby declare as follows.

I. INTRODUCTION

1. I have been retained as an expert witness on behalf of Meta Platforms, Inc. (“Petitioner”) for the above-captioned IPR. I previously submitted a declaration (EX1003) in support of the Petition in this proceeding. This declaration is in support of Petitioner’s Reply to Patent Owner’s Preliminary Response.

II. CLAIM CONSTRUCTION

2. It is my opinion that each claim term should be given its plain and ordinary meaning. EX1003, ¶61. I understand that Patent Owner (“SitNet”) proposes constructions for “situational network,” “roll call query,” and “situation authority.” POPR, 3-16. I disagree with these constructions for the following reasons.

A. Situational Network

SitNet’s Proposed Construction in the POPR
“social network formed in response to the occurrence of an event or situation by forming connections between nodes which represent the personal information and social metrics that interconnect participants of the social networking service hosting the ‘situational network’ to the underlying situation or event” POPR, 11-12

3. SitNet construes “situational network” as shown in the above table. In my opinion, this construction is improper because it confuses more than clarifies and conflicts with embodiments from the specification that do not require a situational network to be a social network.

4. At bottom, SitNet’s construction requires the situational network to be a “social network,” which the ’345 patent also refers to as an “N-dimensional social network (NDSN).” POPR, 4; EX1001, 14:52-57; EX2001, 6. In my opinion, this is improper because the specification repeatedly explains that the situational network is established using a social network in *only a single embodiment*—“*In one embodiment*, the situational network may be established using the framework of an N-dimensional social network (NDSN).” EX1001, 7:52-59, *see also* 14:52-57, 20:20-24. Thus, a POSA would have understood that the ’345 patent does not require a situational network to be a social network in every embodiment.

5. As support for its construction, SitNet relies on one vague statement that situational network participants “may have no prior knowledge of or connection or contact with each other . . . through *any other type* of social network or personal interactions.” POPR, 4 (citing EX1001, 4:3-15). I disagree that this statement defines a situational network as a social network. First, this statement refers broadly to “any other type of *social network or personal interactions*.” EX1001, 4:3-15 (emphasis added). Therefore, a POSA would not have understood this statement to define a “situational network” as being limited to a type of social network. Second, to the extent this passage mentions a social network, it does not stand for the proposition that a situational network *must* be a social network, because, as I just explained, the specification teaches embodiments where

situational networks are not formed using social networks. *E.g.*, EX1001, 7:52-59
(*In one embodiment*, the situational network may be established using the
framework of an N-dimensional social network (NDSN)), *see also* 14:52-57,
20:20-24. That is, while some embodiments teach a social network, others do not.
SitNet’s construction does not account for these other embodiments. *See, e.g.*,
EX1001, 7:29-51, 25:61-26:50.

6. The rest of SitNet’s convoluted, confusing construction is premised on
a situational network being a social network, and therefore also fails. Thus, it is my
opinion that SitNet’s construction is improper.

B. Roll Call Query

SitNet’s Proposed Construction in the POPR
An “optional service provided by the ‘event node server’” (POPR, 14)

7. SitNet construes “roll call query” as shown above. POPR, 14. But this
construction does not accurately define a roll call query because it encompasses
any optional service provided by an event node server.

8. SitNet seeks to limit a roll call query by the component that provides
it—an event node server. In my opinion, a roll call query is not so limited. The
specification describes a roll call query generally, without limiting it to an event
node server: “[a] ‘roll-call’ or ‘check-in’ feature can be included in a situational
network . . . to establish a list of persons that might be missing or need assistance.”
EX1001, 27:3-6.

9. SitNet points to several “examples” of roll call queries being provided by event node servers. *See* POPR, 12-13, *see also* EX1001, 27:6-12. In my opinion, these examples do not define a roll call query as provided by an event node server. Rather, they merely indicate that a “roll call query” encompasses roll call queries that are provided by event node servers, not that the term itself *necessarily* invokes an event node server. In other words, a POSA would have understood that a roll call query *could be* provided by an event node server, but the term itself does not *require* this implementation. This is consistent with the plain language of the term and the specification.

C. Situation Authority

SitNet’s Proposed Construction in the POPR
“external entity able to aggregate and provide comprehensive information related to situation and that operates an event node server hosting one or more event nodes that provide information concerning the situation or event” (POPR, 16)

10. SitNet construes “situation authority” as shown above. It is my opinion that the ’345 patent does not require the situational authority to operate an event node server, at least because the ’345 patent teaches embodiments where this is not the case. For instance, the ’345 patent explains that the situational authority may “act[] as a participant in [a] peer-to-peer network.” EX1001, 7:5-9. In such peer-to-peer networks, the situation authority is merely one peer (or participant) in the network, and “does not act as the central authority or host.” *Id.*; *see also id.*, 6:41-48. A POSA would have understood that the participants in a peer-to-peer

network do not operate as a server.

III. GAGE AND SHIDA RENDER THE CLAIMS OBVIOUS EVEN UNDER SITNET'S IMPROPER CONSTRUCTIONS

11. In my previous declaration (EX1003), I explained that Gage and Shida render obvious the claims of the '345 patent. I stand by my opinions in that declaration. SitNet and its expert Dr. Rubin (EX2005) allege that neither Gage nor Shida renders the claims obvious. I disagree with SitNet and Dr. Rubin for the reasons provided below.

A. Gage Teaches a Situational Network under SitNet's Construction

12. I previously explained that Gage's disaster response system connects with various participants to form a *situational network*, as claimed. See EX1003, ¶¶79-90. I disagree with SitNet's two contrary arguments because Gage's situational network is a social network that is formed in response to a disaster.

1. Gage teaches a social network

13. Gage teaches a situational network even if the claimed situational network is a social network, as alleged by SitNet. Dr. Rubin opines that a social network "consists of individuals who are interconnected by . . . interests, location, demographics, community, and more." EX2005, ¶35. Gage discloses a social network under this interpretation because Gage's disaster response system connects with subscribers in the disaster region and with disaster relief systems. EX1003, ¶¶79-90. The participants are thus connected based on interests, location,

demographics, and community (corresponding to the disaster).

14. This is consistent with the '345 patent, which explains that “a situational network may be formed for an emergency event or situation” among “emergency responders,” “medical personnel,” “individuals with a physical proximity to the emergency event,” “relief agencies and those materially affected by the disaster.” EX1001, 25:61-26:20. The '345 patent also acknowledges that social networks are not limited to purely social connections (e.g., friends), and can encompass other types of connections, such as “professional” “consumer,” and “healthcare” connection. EX1001, 14:62-67. A POSA would have understood that Gage’s situational network, which connects participants based on common interests and locations, is a social network as interpreted by SitNet and the '345 patent.

2. Gage’s situational network is formed in response to a disaster

15. Dr. Rubin alleges Gage’s situational network is formed “prior to” a disaster, when a user subscribes to the system. EX2005, ¶49. But as I previously explained, Gage’s situational network is formed in response to a disaster. When a disaster is detected, Gage’s *disaster response system* couples to the particular subscribers that are located near the disaster in order to communicate with those subscribers. EX1003, ¶¶79-90. The system also determines the appropriate communication channels to implement such coupling based on the location of the

disaster. EX1005, ¶¶23-25.

16. In my opinion, the participants' initial subscriptions to Gage's disaster response system prior to the disaster do not negate that the situational network is formed in response to the disaster. Indeed, this is fundamental to Gage's system—to establish communications with certain users located near a disaster.

B. Gage Teaches a Roll Call Query under SitNet's Construction Because Gage's Disaster Response System Provides Up-To-Date Information about a Disaster

17. Gage teaches a roll call query because its disaster response system queries subscribers for status indicators. EX1003, ¶¶92-93. This is true even if the roll call query must be provided by an event node server, as alleged by SitNet.

18. SitNet alleges that the disaster response system is not an event node server (and thus cannot provide a “roll call query”) because it does not “propagate[] up-to-date information on the event or situation.” POPR, 20-21. I disagree. Gage's disaster response system is an event node server under SitNet's own interpretation because it “can convey data to one or more disaster relief systems,” and can “provid[e] a situational status and a location of a subscriber potentially affected by a disaster to concerned parties.” EX1005, ¶¶8, 31, *see also* ¶¶21, 37-38, claim 20. For instance, “status indicators and locations of subscribers [] can be exchanged between [the disaster response system] and concerned parties.” EX1005, ¶23. The locations and statuses are “continuously

updated . . . allowing the concerned parties to receive current information about subscribers.” EX1005, Abstract.

C. Gage Teaches a Situation Authority under SitNet’s Construction because Gage’s Disaster Response System is External to the Disaster

19. SitNet argues that Gage’s disaster response system is not a situation authority because it is not an “external entity”—i.e., it is not “outside of the service or system providing the ‘situational network.’” POPR, 21-23. But Gage’s disaster response system is an external entity because it is “outside” the disaster region. EX1005, ¶8; *see also id.*, ¶¶22-23. This is also consistent with the ’345 patent, which teaches that “the situational network is formed [i.e., provided] by a situation authority.” EX1001, 34:33-34. Thus, Gage’s disaster response system is an external entity consistent with the ’345 patent because it is located external to the disaster region and forms the situational network.

D. Shida Teaches a Situational Network under SitNet’s Construction because Shida’s Situational Network is a Social Network Formed in Response to a Disaster

20. I previously explained that Shida’s center server forms a situational network by establishing connections with subscribers and operator terminals for communicating information related to the disaster. EX1003, ¶¶158-168. I disagree with SitNet and Dr. Rubin’s contrary arguments because Shida’s situational network is a social network that is formed in response to a disaster.

21. First, Shida teaches a situational network even if the claimed situational network is a social network, as alleged by SitNet. See POPR, 23-25. As I explained in Section III.A.1, Dr. Rubin opines that a social network connects participants based on interests, location, demographics, and community. EX2005, ¶35. The '345 patent also teaches a situational network “formed for an emergency event or situation.” EX1001, 25:61-62. Like the '345 patent, Shida’s situational network connects participants based on an interest in and proximity to a disaster. EX1003, ¶¶158-168. Shida’s situational network is thus a social network as interpreted by SitNet and the '345 patent.

22. Second, Shida’s situational network is formed in response to a disaster, despite SitNet’s assertions to the contrary. SitNet alleges that Shida’s situational network is formed “prior to” a disaster, when a user subscribes to the system. POPR, 26; EX2005, ¶54. But as I previously explained, Shida’s situational network is formed in response to the disaster by establishing connections for communicating with “the subscribers . . . who should be informed of the occurred disaster.” EX1003, ¶¶158-168. The situational network is formed between the center server, subscribers in the disaster area, and an operator terminal for communicating information related to the disaster. *Id.*

23. In my opinion, the participants’ initial subscriptions to Shida’s system prior to the disaster do not negate that the situational network is formed in response

to the disaster. Indeed, this is fundamental to Shida's system—to establish communications with certain users located near a disaster.

E. Shida Teaches a Roll Call Query under SitNet's construction because Shida's center server is an event node server

24. Shida teaches a roll call query because its center server queries subscribers for status updates in response to a disaster. EX1003, ¶¶170-172. This is true even if a roll call query is required to be provided by an event node server, as alleged by SitNet. SitNet alleges that the center server is not an event node server because it “hosts tables, rather than a node, corresponding to the situation or event.” POPR, 27-28. I disagree. Shida's center server comprises a node in the situational network that communicates with (propagates information to) subscriber terminals and the operator terminal to provide information relating to the disaster. *See* EX1003, ¶¶158-172; EX1006, ¶¶31, 38, 46-47.

25. For instance, the center server carries out processing to “transmit a notice of the occurrence of the disaster, which includes information associated with the disaster,” “manage[] the state of the safety of subscribers who exist in the disaster occurring region,” and “transmit[] information on the state of the safety of subscribers who exist in the disaster occurring region to the operator terminal.” EX1006, ¶31. That the center server maintains tables for storing data relating to the disaster does not negate the fact that it comprises a node in the network (i.e., an event node server).

IV. CONCLUSION

I recognize that the declaration will be filed as evidence in an *inter partes* review before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and within the United States. If cross-examination is required, I will appear for cross-examination within the United States during the time allotted.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on this 11th day of July 2024, in Westmount, Canada.



Dr. Jeremy Cooperstock