IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

CENTRALSQUARE TECHNOLOGIES, LLC, *Plaintiff and Counterclaim-Defendant*, v. **CARBYNE, INC., and CARBYNE LTD.**, *Defendants and Counterclaim-Plaintiffs*.	Civil Action No. 1:24-cv-01497-ADA **JURY TRIAL DEMANDED**

EXPERT DECLARATION OF GERALD CHRISTENSEN

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I. INTRODUCTION

1. I, Gerald Christensen, declare as follows:

2. Counsel for Carbyne, Inc. and Carbyne, LTD. (collectively, "Carbyne") have retained me as an expert in this case.

3. I understand that CentralSquare Technologies, LLC ("CST") has accused Carbyne of infringing certain claims of U.S. Patent No. RE50,016 ("the '016 patent") and Carbyne has accused CST of infringing certain claims of U.S. Patent No. 11,689,383 ("'383 patent"). I understand that certain terms of these patents are at issue for claim construction.

4. I have been asked to provide an opinion on the following terms:

- "wherein the URL link is associated with the phone number of the mobile device" ('383 Patent, Claims 1, 8, 15)
- "wherein the real-time video stream is associated with a unique identifier for the mobile device" ('383 Patent, Claims 1, 8, 15)
- "unique identifier" ('383 Patent, Claims 1, 4, 8, 11, 15, 18)

5. I have reviewed the patents at issue and their disputed terms, the parties' preliminary claim construction disclosures, the parties' opening claim construction briefs, and the declaration of CST's expert attached as Exhibit L to its opening claim construction brief.

6. I am being compensated for my services at my standard rate of $500 per hour. My compensation is not contingent upon the particular options that I provide, and I have no financial interest in the outcome of this matter. I have no ownership or beneficial interest in any of the parties to this case.

II. OVERVIEW OF THE '383 PATENT

7. The '383 Patent discloses an architecture well-known to a POSITA. The '383

Patent generally discloses an emergency call is made to an emergency call center via a user device such as a mobile phone. Fig. 3 of the ’383 Patent is one possible embodiment. Fig. 3 discloses identifying a connection between the user device and call center, and then connecting the call to a dispatch unit terminal:

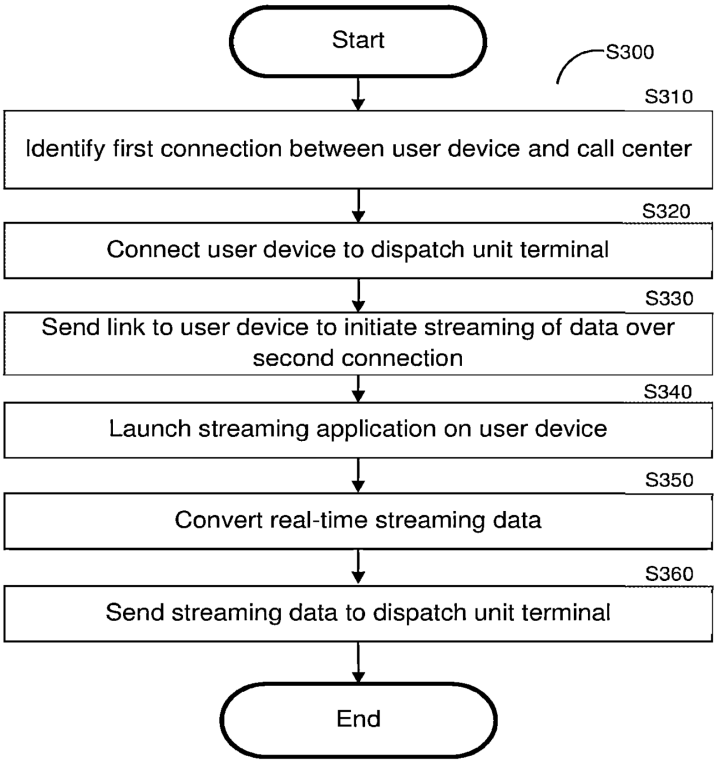

FIG. 3

’383 Patent, Fig. 3. Fig. 3 then discloses sending a link to the user device to initiate streaming of data over a second connection. Fig. 3 further discloses that upon the user clicking the link, a browser is launched, and the mobile device begins streaming real-time data such as video through a WebRTC session to the dispatch unit terminal. ’383 Patent, 8:31-9:57. The system associates the electronic message that provided the link and/or the incoming real-time streaming data from the device with the mobile device, using an identifier. *See, e.g., id.*, 7:28-34; Claim 1. The ’383 Patent also discloses various ways that “unique identifier” may be used to create an

association between a data stream and a mobile device.

8. A POSITA would understand that the claimed '383 Patent system tracks what incoming data comes from which device so as to present accurate mappings between the incoming data and callers for emergency dispatchers. Further, a POSITA would understand that there are many ways to do this, and that the '383 Patent provides several exemplary ways. For example, the '383 Patent explains that the system could use a unique token or signifier such as "a code snippet, a randomly generated string, a signature," a URL "suffix … referencing a web address of the call center connected to the UD [user device]," or the phone number of the device, to map a stream or electronic message to the caller's device. *Id*., 6:17-25, 3:5-6, 3:30-31; *see also, e.g., id*., Abstract, 3:54-55, 6:5-9, 7:66-8:9, 8:21-31, 8:48-50, Claims 1, 8, 15. A POSITA would have been familiar with these methods, as well as many other ways to associate data with a caller.

9. The '383 Patent provides the example of a caller using the system to help another user. '383 Patent, 8:10-20. In this embodiment, "a first user associated with a first [user device] may contact the call center [] to report that a second user associated with a second [user device] requires assistance." *Id.*, 8:12-14. The first caller "may provide an identifier for the second [user device], such as a phone number." *Id.*, 8:14-16. After receiving this second identifier, the server then sends a link to the second user device over a second connection to initiate streaming of real-time data from the second device. *Id.*, 8:16-20. This link is, of course, directly associated with the phone number of the mobile device. The specification also discloses that the server can use the phone number associated with a first user device to reestablish the first connection and to send a link over a second connection to that device. '383 Patent, 8:21-31. These various exemplary flows demonstrate that in emergency-call systems, phone numbers, identifiers, tokens,

addressing, and metadata provide the objective glue that ties, e.g., the first call to the second-connection link and to the later-arriving real-time stream. All of this would a POSITA would understand. In this context, "associated with" is not ambiguous or indefinite, but rather refers to a system-level linkage that enables routing and correlation among the components (mobile device, sever, DUT, etc.). The claims have objective boundaries that are repeatedly reflected in the specification's (issued and original) consistent discussion of these relationships (phones to links; streams to identifiers).

10. CST's expert, Mr. Liphoff, contends that "associated with" is unbounded and that a skilled artisan cannot know when a link is associated with a phone number or when a stream is associated with a unique identifier. CST Mot., Ex. L, ¶¶ 48-49. I disagree. Mr. Liphoff's declaration itself surveys the specification's consistent use and discussion of associations among the phone number, the link, the identifier, the stream, the call center, and the dispatch terminal. *Id*., ¶ 50. Those passages set out the objective boundaries a skilled artisan would recognize and use. These passages show how the system identifies a device by phone number or another unique identifier, how the system addresses and delivers a link to the identified device over a second connection, and how the system persists a unique token with the stream to enable routing and correlation. As such, the intrinsic record contradicts Mr. Liphoff's testimony, and shows exactly how "associated with" operates in this context.

III. DISPUTED CLAIM TERMS

A. "wherein the URL link is associated with the phone number of the mobile device" ('383 Patent, Claims 1, 8, 15)

Carbyne's Construction	CentralSquare's Construction
Plain and ordinary meaning.	Indefinite. In the alternative: "the URL link includes a unique identifier associated with the phone

	number of the mobile device"

a. The Disputed Claim Term Is Not Indefinite.

11. CST and its expert contend that the term "wherein the URL link is associated with the phone number of the mobile device" is indefinite because "associated with" is unbounded and undefined. CST Mot. at 10; CST Mot., Ex. L, ¶¶ 48-49. I disagree.

12. This term is not indefinite: within the context of this patent, a POSITA would understand when a URL link is and is not associated with the phone number of the mobile device in this system. The specification explains that a user device (such as the caller to an emergency call center) is connected with a dispatch unit terminal at the emergency call center, and that the user device is identified, such as by using "a phone number or other unique identifier associated with the user device." '383 Patent, 8:43-50. After that, and "based on the identification of the user device," *id.*, at 8:51, the dispatcher sends a link to the user device, the link including an "identifier unique to the [user device]," *id.*, 8:55-57. This can be either a phone number or some other unique identifier. This is just one way in which "the URL link is associated with the phone number of the mobile device," and a POSITA would both understand it as such and understand that there are different possible ways to do this.

13. In fact, the specification provides other examples of how to a phone number can be used to deliver a link to a particular device such that the URL link is associated with the phone number. One example is where a first user gets assistance for a second user. In such a case, a first user can provide a second user's number so that the server can transmit a link to that second device. *See, e.g.*, 8:10-20; *see also, e.g., id.*, 8:21-31. A POSITA would recognize that mapping a phone number to a message endpoint and directing a URL to that endpoint associates the phone number and the URL. A POSITA would also recognize that maintaining a mapping between a phone number and data in system memory to ensure correct addressing and correlation

is also an association. Contrary to Mr. Liphoff and CST's claims, a POSITA would nto be required to guess about the objective boundaries of this association.

14. Ultimately, a POSITA would recognize that mapping or associating a phone number or unique identifier with a URL can be done in ways beyond including the phone number or identifier in the link itself.

b. CST's Alternative Construction Is Unsupported and Does Not Add Clarity.

15. In my view, CST's alternative construction proposal is inappropriate as it imports a limitation from the specification and does not clarify the claim term. Other patents in the '383 Patent family require that the recited URL link "comprises a unique identifier associated with the user device." *See, e.g.*, CST Mot., Ex. J (EP Patent 4,007,324), Claim 1; *id.*, Ex. K (EP Patent 3,445,016), Claim 1. But the patentee did not claim this particular limitation for this patent, or for the related '217 Patent. CST is correct that "the specification explicitly states that the 'link includes an identifier unique to the [user device],'" CST Mot. at 13 (citing '383 Patent, 8:47-56 and 4:32-39), but leaves out the important fact that this is only true for some embodiments. That the specification discloses a URL link incorporating a unique identifier does not foreclose a claim, like here, that requires a URL link be associated with the phone number of the mobile device. A POSITA would understand that such associations can be implemented in different ways. The drafter of the '383 Patent chose to require that the link be associated with the device's phone number, not that the URL link include a unique identifier that is associated with the devices phone number.

16. CST also argues that Carbyne's comments during prosecution of the related '996 Patent support CST's alternative construction. I disagree. CST points to Carbyne's amendment of Claim 1 of the '996 Patent to add the following underlined phrase: "wherein the link

comprises a unique identifier associated with said user mobile device." CST Mot. at 13 (citing Ex. F at 26). CST also relies on Carbyne's explanation for this amendment:

> [T]he amended Claim 1 now clarifies a unique feature of associating the streamed real-time video with the identity of the sending user mobile device by incorporating into the link a unique identifier associated with the identified user mobile device. **This unique identifier is *a base* for associating the user mobile device with the streamed real-time video** at the dispatch unit terminal such that the dispatch unit can associate the mobile device that made the call over the first communication connection with the received real-time video.

Ex. F at 39 (emphasis added). I disagree that this supports CST's position. First, this amendment relates to a different patent, with different claims. And second, as the patentee itself noted (see underlined above), the unique identifier is just "a" base (meaning one possible base) and not "the" base (meaning the only base) for associating the user mobile device with the streamed real-time video (which relates to the next term, not this one). It would have been clear to a POSITA that this is not necessary. For example, the specification discloses the use of the phone number associated with a first user device by the server to reestablish the first connection and to send a link over a second connection to that device. '383 Patent, 8:21-31. That is, the association between that URL link sent to the user device may be accomplished on the backend and need not necessarily result from the inclusion of a unique identifier associated with the phone number in the URL link itself. Ultimately, in the context of this patent, this term ("wherein the URL link is associated with the phone number of the mobile device") would be clear and not indefinite to a POSITA.

B. "wherein the real-time video stream is associated with a unique identifier for the mobile device" ('383 Patent, Claims 1, 8, 15)

Carbyne's Construction	CentralSquare's Construction
Plain and ordinary meaning.	Indefinite. In the alternative: "wherein the real-time video stream is associated with the mobile device using a unique identifier"

17. The term "wherein the real-time video stream is associated with a unique identifier for the mobile device" is not indefinite to a POSITA, and should be given its plain and ordinary meaning. This term has a readily understood meaning in the context of the '383 Patent.

18. As I explained above, the term "associated with" is not indefinite and has clear, specific meaning in the context of the '383 Patent.

19. CST and its expert seem to also suggest that the phrase "unique identifier" within this term is indefinite and that this makes the entire term indefinite. CST Mot. at 15. I disagree. The term "unique identifier" is not indefinite to a POSITA; rather, it has a readily understood meaning in the context of the '383 Patent. I note also that CST itself proposes a construction for this term and does not seem to argue it is indefinite on its own.

20. For example, the specification discloses that "the identifier may be, for example, a code snippet, a randomly generated string, a signature, and so on." '383 Patent, 6:18-20. Also, "[t]he unique identifier 'may be the suffix of the URL, referencing a web address of the call center connected to the [user device]," *id*., 6:23-25, or "a phone number or other unique identifier associated with the user device," *id.*, 8:49-50. These are all concrete implementations of the term that would be readily understood and implemented by a POSITA.

21. These disclosed examples (a code snippet, a random string, a signature, a URL suffix, a phone number, and so forth) reflect a common practice in the art: define a token, symbol, or "identifier" that uniquely and reliably distinguishes something from something else (such as a device or data like a real-time stream from the device from another). The point here is to enable the real-time data like video to remain linked or connected with the original user device that placed the emergency call. *See, e.g.,* '383 Patent, 0:27-33. In other words, the association of the real-time data or video with a unique identifier allows the claimed system to keep track of

real-time data received from an emergency caller and transmitted to the emergency call center. So, for example, if data is transferred to the dispatcher at the emergency call center through a second or third connection, and not the first connection through which the original emergency call was placed, the correct relationships and identity can be maintained. The purpose of the emergency call system is to furnish assistance to a caller, so it is critical that a caller's video stream be linked to that caller and his or her particular emergency.

C. "unique identifier" ('383 Patent, Claims 1, 4, 8, 11, 15, 18)

Carbyne's Construction	CentralSquare's Construction
Plain and ordinary meaning.	Indefinite. In the alternative: "unique identifier used to match the real-time data with the dispatch terminal used in the connection"

22. "Unique identifier" has a readily understood plain and ordinary meaning to a POSITA in light of the '383 patent's claims and specification. CST's construction is unnecessary and introduces confusion to the claim term.

23. CST's proposed construction limits the term to a particular function of a "unique identifier" disclosed in one embodiment: "match[ing] the real-time data with the dispatch terminal." This is inconsistent with CST's position for the previous term, for which it proposes that the unique identifier is used to associate the real-time video stream with the mobile device. CST's proposed construction adds confusion to an otherwise straightforward term understandable by a POSITA.

24. The specification uses "unique identifier" as a means of uniquely identifying the user device in the context of the claimed system and method, consistent with its plain and ordinary meaning. '383 Patent, 6:21-22 (the unique identifier "distinguishes any data sent from different UDs."). The specification gives examples of a "unique identifier" and describes how

they may be used. For example, a dispatch unit terminal may use the unique identifier to match the incoming stream with the audio content of the first connection. '383 Patent, 7:28-36. Or "the real-time data is associated, at the first DUT 140, with at least an audio content that was received over the first connection. That is, when the real-time data is sent to the first DUT 140, ***the identifier that was included within the link is utilized for associating the real-time data with the at least audio content at the first DUT 140***." *Id*., 7:28-34. In another embodiment, the association with the unique identifier occurs at the call center. *See, e.g.*, *id*., 4:35-39 ("Upon identification that the link was engaged, the user device is configured to initiate the uploading of streaming real-time data from the user device to the call center. In an embodiment, the uploaded real-time data is associated with the user device using the identifier.").

25. The specification also discloses that the unique identifier may be a suffix of a URL or as a phone number used to address a message. *See, e.g.*, *id*., 6:21-25 ("Each identifier is uniquely generated for each UD 130 and therefore distinguishes any data sent from different UDs. The link may be, for example, a URL where the unique identifier may be the suffix of the URL, referencing a web address of the call center connected to the UD."). These disclosures teach the concept and its uses. A POSITA would have no difficulty understanding the meaning of the this claim in view of these specification disclosures.

26. CST's proposed construction of the term as "wherein the real-time video stream is associated with the mobile device using a unique identifier" is inconsistent with and would exclude the embodiments discussed above, and limit the term to a function recited only in some embodiments. *See, e.g.,* '383 Patent, 2:21-56, 7:20-36.

IV. CONCLUSION

27. For the foregoing reasons, it is my opinion that Carbyne's proposed constructions

of the disputed terms discussed above are correct.

V. RIGHT TO SUPPLEMENT

28. I reserve the right to supplement my opinions in the future, including to respond to arguments raised by CentralSquare, and to take into account new information that may become available to me.

29. I declare that all statements made in this declaration are based on my own knowledge and experience and are true to the best of my knowledge and that any statements made on information and belief are thought to be true.

Dated: November 3, 2025

Gerald Christensen