UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

FACEBOOK, INC.,

Plaintiff,

v.

BLACKBERRY LIMITED, et al.,

Defendants.

Case No. 4:18-cv-05434-JSW

CLAIM CONSTRUCTION ORDER

Re: Dkt. No. 49

The Court has been presented with a technology tutorial and briefing leading up to a hearing pursuant to Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). This Order construes the disputed claim terms selected by the parties, which appear in the patents at issue in this case: U.S. Patent Nos. 6,356,841 ("'841 Patent"), 6,744,759 ("'759 Patent"), 7,228,432 ("'432 Patent"), 7,302,698 ("'698 Patent"), 7,567,575 ("'575 Patent"), and 8,429,231 ("'231 Patent").

BACKGROUND

Plaintiff Facebook, Inc. ("Facebook") contends that Defendants BlackBerry Limited and BlackBerry Corporation (collectively, "BlackBerry") infringe six of its patents. The six patents are described as follows:

- The '841 Patent is titled "G.P.S. Management System" and is directed towards "a management system" that uses G.P.S. receivers to "track[] remote units from a central office" and further "determin[e] if those remote units have varied from a set of predetermined parameters of operation." ('841 Patent, Title, Abstract.)

- The '759 Patent is titled "System and Method for Providing User-Configured Telephone Service in a Data Network Telephony System" and is directed to "providing user-configured telephone service to a user of a data network telephone." ('759 Patent, Title, Abstract.)

- The '432 Patent is titled "Method and Apparatus for Providing Security for a Computer System" and is directed to "providing security for a computer system" using a "dedicated

security processor" that receives a request for a file, validates the file, and provides the requested file to another processor. ('432 Patent, Title, Abstract.)

- The '698 Patent is titled "Operation of Trusted State in Computing Platform." ('698 Patent, Title.) The '698 Patent is purportedly directed to placing a computer entity into a trusted state and monitoring that state using a trusted component. (Id., Abstract.)

- The '575 Patent is titled "Personalized Multimedia Services Using a Mobile Service Platform" and is directed to "providing multimedia data" from a multimedia source to a mobile device by communicating a series of information. ('575 Patent, Title, Abstract.)

- The '231 Patent is titled "Voice Instant Messaging" and is directed towards establishing both instant messaging and voice communication "through an instant messaging host." ('231 Patent, Title, Abstract.)

The parties initially proposed ten terms for claim construction. (Dkt. No. 71.) However, following the Court's Order regarding tentative constructions and questions for the hearing (Dkt. No. 78), the parties agreed on four of the terms. (Dkt. Nos. 80, 81, 85.) The parties also modified in part their proposed constructions in response to the Court's questions. (Dkt. No. 80.) The Court shall address additional facts as necessary in the remainder of this Order.

ANALYSIS

A. Legal Background

Claim construction is a question of law for the Court. Markman, 517 U.S. at 384. It is a "bedrock principle" of patent law that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted). "The purpose of claim construction is to determine the meaning and scope of the patent claims asserted to be infringed." *O2 Micro Int'l L*td. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1360 (Fed. Cir. 2008). The Court has an obligation to assign "a fixed, unambiguous, legally operative meaning to the claim" in order to "ensure that questions of the scope of the patent claims are not left to the jury." Every Penny Counts, Inc. v. Am. Express Co., 563 F.3d 1378, 1383 (Fed. Cir. 2009) (quotation omitted).

Claim terms are generally given "their ordinary and customary meaning"—i.e., "the meaning that the terms would have to a person of ordinary skill in the art at the time of the invention." Phillips, 415 F.3d at 1312-13. There are only two exception to this rule: (1) "when a

patentee sets out a definition and acts as his own lexicographer," and (2) "when the patentee disavows the full scope of a claim term either in the specification or during prosecution." Thorner *v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

In determining the ordinary and customary meaning, the claim language "provide[s] substantial guidance as to the meaning of particular claim terms." Phillips, 415 F.3d at 1314. Additionally, "the context in which a claim term is used in the asserted claim can be highly instructive." Id. However, a person of ordinary skill in the art is "deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Id. at 1313. The specification "is always highly relevant to the claim construction analysis" and is usually "dispositive." Id. at 1315. The scope of the claims must be "determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." Id. at 1316 (quoting *Renishaw PLC v. Marposs Soceta' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). The construction that "stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." Id.

In addition to the claims and the specification, the prosecution history may be used "to provide[] evidence of how the PTO and the inventor understood the patent." Id. at 1317. The prosecution history can demonstrate "how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution." Id. "[A]ny explanation, elaboration, or qualification presented by the inventor during patent examination is relevant, for the role of claim construction is to 'capture the scope of the actual invention' that is disclosed, described and patented." *Fenner Inv., Ltd. v. Cellco P'ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015). The claims, specification, and prosecution history together constitute the "intrinsic evidence" that forms the primary basis for claim construction. Phillips, 415 F.3d at 1312-17 (citation omitted). Courts may also consider extrinsic evidence if it is "helpful in determining the 'true meaning of language used in the patent claims'" and is not contradicted by the intrinsic evidence. Id. at 1318 (quoting Markman, 52 F.3d at 980).

B. U.S. PATENT NO. 6,356,841

1. "central location" (claims 12 and 23)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No construction necessary at this time. Alternatively, if construction is needed, "location that communicates with the remote unit and is different from the remote unit."	a single location that receives, stores, and analyzes GPS and other data from one or more remote unit	an integrated set of components that receives, stores, and analyzes G.P.S and other data from one or more remote unit

The term "central location" appears in asserted claims 12 and 23, as well as unasserted claims 1, 17, 29, and 36 of the '841 Patent. The '841 Patent describes a "central location" or "central office" that monitors remote units (such as vehicles) using G.P.S. and optionally compares the received information to predetermined values (such as an allowed time for the vehicle to remain in one place). ('841 Patent, Abstract, 1:34-48.) The parties dispute (1) whether the term "central location" requires construction, (2) the functions performed by the central location, and (3) whether a "central location" can encompass a distributed solution, in which multiple locations scattered around the world together constitute the "central location."

As an initial matter, the term "central location" requires construction. Although the term "location" has an ordinary lay meaning—a physical place—that lay meaning fails to resolve the parties' dispute. Specifically, the term "location" invites the parties to debate whether components located at different "points in space" are sufficiently far apart to constitute different "locations."[1] The '841 Patent provides no guidance in this regard as it is silent about the spatial configuration of the "central location." Moreover, there is evidence that the '841 Patent does not use the lay meaning of "location." The prosecution history reveals that the term "central location" was added to replace "central office" in order to avoid confusion with a specialized meaning of "central

[1] In their briefs, the parties disagreed whether Figure 19 shows a single location constituting a central office or components distributed at "multiple different locations" that nevertheless all belong to a "central location." (Compare Dkt. No. 51 ("BlackBerry Op.") at 2:15-19, 3:3-4, with Dkt. No. 58 ("Facebook Reply") at 1:20-25.) The '841 Patent provides no objective boundaries to determine when components are at the same or different "locations." Instead, components appear to be part of the "central location" if they are integrated with other components to perform centralized data processing and communication, as described in this Order.

office." (Dkt. 49-1 ("June 26, 2001 Amendment") at 15.) Figure 19 shows the "central office" as a set of components without any reference to the spatial "location" of those components. ('841 Patent, Fig. 19.) The claims also recite that the "central location" performs functions related to communication and data analysis—which are far afield from the ordinary behavior of physical places. (E.g., id., claims 1, 23.) The term "central location" therefore requires construction.

"Central location" is hereby construed as "an integrated set of components that receives, stores, and analyzes G.P.S and other data from one or more remote unit." This meaning is clear from the claims, specification, and prosecution history of the '841 Patent. First, the claims require the "central location" to communicate with remote units, receive G.P.S. data from those units, and (in most claims) compare the received data "to a predetermined parameter having a range of acceptable values" and note an exception if the predetermined parameter is "outside the range of acceptable values." (Id., claims 1-50.) The claims thus make clear that the "central location" is or has a computer system capable of communication and data processing functions.

The specification confirms this understanding. Figure 19 shows a preferred embodiment of the "central office" that "includes provisions to receive and process information sent to it by the other components." (Id., 7:51-55.) The "central office" comprises a set of components, including: two wireless communication devices, a processor, a storage device, and a set of applications. (Id., 7:56-8:24.) The components work together to perform communication and data analysis. The processor receives data from the remote units through the communication devices and "prepares the information for storage in storage device." (Id., 8:12-18.) The storage device stores the data for further operation. (Id., 8:16-19.) The applications "prepare reports and perform other functions" with the stored data. (Id., 8:19-24.) Figures 7 through 18 show the reports generated by the central office, which include information about the "average engine run time," "average mileage," and "daily route history" for each vehicle. (Id., 8:23-24, Figs. 7-18.) The specification thus confirms that the "central location" is primarily a functional system—a set of components that work together to perform communication and data processing—rather than a particular physical place.

Finally, the prosecution history further confirms that the "central location" is defined by its

centralized data processing and communication abilities. During prosecution, the patentee replaced "central office" (the term used in the specification) with "central location" in all claims. (June 26, 2001 Amendment at 15.) The patentee explained that the amendment "was not done for any purpose related to patentability, but rather to clarify the meaning of the claims" and "avoid the possible confusion" with a specialized meaning of "central office" in the field of telecommunications networks. (Id.) Contemporaneous technical dictionaries define "central office" in communications as "the switching center where interconnections between customers' communications lines are made." (Dkt. No. 51-6 ("Microsoft Computer Dictionary") at 3.) Thus, the prosecution history demonstrates that "central location" in the '841 Patent is similar to—but broader than—a place that centrally receives and processes (interconnects) communication lines. Accordingly, a "central location" is "an integrated set of components that receives, stores, and analyzes G.P.S and other data from one or more remote unit."

Facebook argues in its brief that a broader meaning should apply. First, Facebook argues that the patentee defined a broader meaning of "central location" during prosecution. While amending the claims to replace "central office" with "central location," the applicant stated that "[w]hile the 'central location' used in these claims could refer to or coincide with a 'central office,' as the term is understood in the field of telecommunications networks," the '841 Patent claims are not so limited, and "the central location could be any location that communicates with the remote unit and is different from the remote unit." (June 26, 2001 Amendment at 15.) Facebook does not contend that the applicant acted as a lexicographer in making this statement, and the Court finds that it did not.

Although the prosecution history statement is probative of a broad meaning for "central location," it is at odds with the claims and specification of the '841 Patent. The claims themselves require that the "central location" receive data transmitted from the remote units and perform data processing, such comparing data to predetermined values. ('841 Patent, claims 1-11, 16-50.) A construction that allowed "any location" to satisfy this limitation would conflict with the other requirements of the claims. Furthermore, the specification states that the purported invention of the '841 Patent is to centrally track and monitor remote units. (Id., 1:6-9, 1:34-35, 2:55-57.) The

'841 Patent describes prior art "[c]onventional G.P.S. systems" that "do not allow centralized storage and processing of information" and "cannot track multiple G.P.S. users." (Id., 1:11-27; see also id., 1:28-31 (describing problems in the prior art "because the G.P.S. information is not collected and analyzed").) The '841 Patent improves over the prior art because "the present invention includes provisions for collecting, remotely storing, transmitting, centrally storing and analyzing G.P.S. data and other data, from a central location." (Id., 1:35-38.) A construction that allowed "any location" to be the central location would fail to capture this feature of "the present invention" or achieve any improvement over the prior art. Accordingly, the "central location" must receive, store, and analyze data from the G.P.S. units in order to centrally track multiple remote units—not just communicate with those units.

Second, Facebook argues in its brief that the term "location" should have its plain and ordinary meaning—which the Court understands to mean a physical place. In response to the Court's tentative constructions, however, Facebook agreed that the "central location" can be an integrated set of components, while BlackBerry argued that the "central location" must be a physical location—such as a building or facility—that merely houses the components performing communication and data processing. (See Dkt. No. 80 ("Joint Statement") at 2.) BlackBerry argues that by using the term "central location," the patentee excluded noncentralized solutions where geographically distributed components perform the role of the central office.

The Court broadly agrees that a "central location" may be a physical place that houses the integrated set of components that performs the required functions. However, there is no indication that the '841 Patent considers physical location important and it may simply refer to a logical "place." Specifically, the '841 Patent does not appear to be concerned with spatial or geographic centrality. For example, it does not describe a place or distance that the "central location" must occupy relative to the remote units. Instead, the '841 Patent is primarily concerned with functional centrality—centralized data processing and communication. ('841 Patent, 1:11-30, 1:33-48.) The '841 Patent improves conventional G.P.S. systems that cannot determine "location history" or "track multiple users" because the G.P.S. information is stored locally with the users. (Id., 1:17-27.) The '841 Patent provides an improvement by storing G.P.S. information in one

logical "place" (i.e., in a single system) that can then track multiple users and analyze location history. (Id., 1:33-48.) While centralized communication and data processing require a single integrated system to act as the "central location," it does not require a single physical location for that system.

The intrinsic evidence confirms this interpretation. The specification describes several "locations" where the physical place is important, but the "central location" is not one of them. For instance, the specification describes a "service center" for vehicles that can be geographically designated by selecting a point on a map and an "alert call center" that is shown as a physical building in Figure 3. (Id., 3:50-53, 8:50-51, Fig. 3.) By contrast, the "central office" is never described in geographic terms, and Figure 19 shows a set of components without any surrounding building. (Id., Fig. 19.) The prosecution history also supports broadening "central location" beyond a physical place. During prosecution, the applicant replaced "central office"—defined as a "switching center where interconnections between customers' communications lines are made"—with "central location." (June 26, 2001 Amendment at 15.) While a "central office" must presumably be a single physical location to receive and interconnect physical communication lines, the claimed "central location" communicates using wireless methods (such as "satellite, cellular, and/or wireless") and thus does not need to be a physical location to receive communication links. (See '841 Patent, 7:59-63.) Thus, even if the Court interpreted "location" according to its ordinary lay meaning, it would not add any limiting weight because the '841 Patent provides no basis to limit the "central location" to any particular place or even to a physical (rather than logical) location.[2]

Accordingly, the Court construes "central location" as "an integrated set of components that receives, stores, and analyzes G.P.S and other data from one or more remote unit."

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[2] BlackBerry's proposed construction for "location" in response to the Court's tentative constructions—a "building or facility"—underscores the lack of reasonable basis to interpret the term geographically. The '841 Patent does not describe the "location" as a building and there is no reason why it could not be an office park, a city, a state, the country, the world, etc. Absent any limiting power, adding the term "location" to the construction would only confuse the jury.

C. U.S. PATENT NO. 6,744,759

2. "data network telephone" (claims 4, 8)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No construction necessary at this time.	A fixed communications device with a communications interface for connection to a data network.	A fixed communication device with a communications interface for connection to a data network

The term "data network telephone" appears in claims 1-4, 6, 8, and 10 of the '759 Patent. The '759 Patent describes adding "features," such as call forwarding and caller ID, to "data network telephones" that use the Internet. ('759 Patent, 1:32-40.) The parties dispute whether the claimed telephone must be a "fixed" device. BlackBerry argues that the meaning of "data network telephone" in the context of the '759 Patent is limited to fixed devices with a communication interface to a data network. Facebook responds that the plain meaning of "data network telephone" is "a telephone that can work with a data network" and that BlackBerry's construction improperly limits this plain meaning to the embodiments.

The Court broadly agrees with Facebook that the ordinary meaning of "data network telephone" is not limited to fixed devices. The plain language of "data network telephone" suggests a telephone that works with a data network, which the specification explains can be the Internet. ('759 Patent, 3:23-25.) Claim 1 requires the "data network telephone" to transmit voice communications on a "voice over data channel," which further suggests voice-over-Internet-Protocol functionality. (Id., claim 1.) The specification describes two types of Internet phones: a PSTN phone that connects to a data network through a telephony gateway or terminal and another phone that connects directly to an access network using a router. (Id., 3:3-22.) The parties agree that the "data network telephone" refers to the latter type of Internet phone. U.S. Patent No. 7,016,675, incorporated by reference in the specification, defines a "data network telephone" in just this way. (Id., 4:37-39; U.S. Patent No. 7,016,675, 8:25-30 ("voice communication devices … that interface directly to data connections (i.e. data network telephones)").) The specification confirms this meaning by showing a "data network telephone" that accesses a data network directly, as opposed to a PSTN phone that accesses it through a gateway. ('759 Patent, Figs. 2A-

3A.) Accordingly, a person of ordinary skill in the art would understand that the term "data network telephone" in the '759 Patent to refer to a voice communication device that interfaces directly with a data network.

The Court next examines whether the '759 Patent limits this ordinary meaning of "data network telephone" to fixed devices "by implication." Phillips, 415 F.3d at 1321; see, e.g., Trs. of Columbia U. v. Symantec Corp., 811 F.3d 1359, 1364-67 (Fed. Cir. 2016) (finding that patentee implicitly limited the term "byte sequence" by framing its usefulness in terms of representing machine code in an executable); In re Abbott Diabetes Care Inc., 696 F.3d 1142, 1149-50 (Fed. Cir. 2012) (construing "electrochemical sensor" to exclude external cables or wires where "every embodiment shows an electrochemical sensor without external cables or wires" and the specification disparages sensors with such cables or wires); see also Wisconsin Alumni Res. Found. v. Apple Inc., 905 F.3d 1341, 1351-52 (Fed. Cir. 2018) (limiting the term "prediction" to dynamic prediction where every embodiment describes dynamic prediction and allowing the term to cover static prediction "would 'expand the scope of the claims far beyond any-thing described in the specification'").

The specification uses the term "fixed" only once: it states that "[t]he fixed communication device of the present invention is not limited to telephones or videophones—additional user interface types, for example, such as ones needed for computer games, are also contemplated as being within the scope of the present invention."[3] ('759 Patent, 9:36-40.) This statement describes "the present invention" and thus may limit the scope of the invention as a whole. See Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1308 (Fed. Cir. 2007); Honeywell *Int'l, Inc. v. ITT Indus*., Inc., 452 F.3d 1312, 1318 (Fed. Cir. 2006). But see Absolute Software, Inc. v. Stealth Signal, Inc., 659 F.3d 1121, 1136-37 (Fed. Cir. 2011) (holding that references to the "present invention" are not limiting if they are "not uniform" or not supported by the rest of the intrinsic evidence).

The remainder of the specification consistently describes a "data network telephone" as a

[3] This sentence is stated in a passage describing user interfaces of the exemplary "data network telephone" shown in Figure 2B. ('759 Patent, 8:25-35, 9:34-41, Fig. 2B.)

fixed device. The preferred embodiments describe the "data network telephone" as an Ethernet phone, or else a cable phone. ('759 Patent, 8:26-28, 12:13-22.) The figures show "data network telephones" as traditional wired phones. (See id., Figs. 1-5.) Moreover, the specification describes the "data network telephone" in terms of problems and operations relevant only to fixed devices. For example, it describes "installing" a data network telephone, which BlackBerry's expert opines would be understood as plugging in a fixed telephone, rather than activating a mobile phone. (Id., 15:11-22; Dkt. No. 51-1 ("Shoemake Decl.") ¶ 52.) The specification further describes a user moving to a different location and registering as the user of a second "data network telephone," which would not occur if the phone travelled with the user. ('759 Patent, 8:17-36.) Finally, the specification describes re-registering the "data network telephone" after moving it to another location in order to properly route calls, which also would not occur with mobile phones. (Id., 14:16-25; Shoemake Decl. ¶ 53.)

By contrast, the specification describes several "wireless" devices, including a "voice communication device" that is "any device having voice communication capabilities," such as a personal computer, and a "personal information device" ("PID") that may function as a "wireless phone." ('759 Patent, 6:20-26, 6:35-40,[4] 5:57-6:2.) The PID may communicate with the "data network telephone" using wireless standards, such as Bluetooth, to input and transfer user data. (Id., 5:48:56.) Incorporated by reference in the specification is a concurrently-filed patent application by the same inventors that describes using a "wireless" PID to "connect over the wireless cellular infrastructure" and control telephone service for a data network telephone. (Id., 4:34-39; U.S. Patent No. 7,016,675, Abstract.) Another concurrently-filed patent application incorporated by reference refers to a "data network telephone" as an "IP Telephony phone" in the Abstract. ('759 Patent, 4:45-47; U.S. Patent No. 6,681,252, Abstract.) A third reference describes CDMA mobile phones, whose preferred embodiments are PDAs and wireless modems, but not

[4] Figure 1 describes two voice communication devices, 108a and 108b, and states that 108a may communicate using "wireless links." ('759 Patent, 6:35-40.) Although Facebook argues that this shows that a "data network telephone" can be wireless, "a voice communication device" is broader than a data network telephone.

apparently Internet phones. ('759 Patent, 5:1-3; U.S. Patent No. 6,151,628, 2:7-11, 3:56-61.)

Based on this evidence, the Court finds that the '759 Patent limits a "data network telephone" to fixed devices by implication. Although descriptions of "the present invention" are not always limiting, the description of a "fixed device" in this case is entirely consistent with the remaining intrinsic evidence. Absolute Software, 659 F.3d at 1136-37. The '759 Patent appears to have contemplated a "data network telephone" primarily as a traditional IP telephone. By contrast, the state of the art at the time of the '759 Patent appears to have conceived of mobile devices primarily as "PIDs" or "PDAs," or else specialized devices.[5] Moreover, the inventors used a different term—a "voice communication device"—to refer broadly to any device capable of voice communication. Thus, while the '759 Patent uses "data network telephone" to refer to a communication device that interfaces directly to a data network, it implicitly assumes that the "data network telephone" is a fixed device and describes it consistently with that assumption and the state of the art. Allowing the claims to now cover telephones that function like PIDs would expand the claims "far beyond anything described in the specification" and beyond what the inventors likely considered themselves to have invented.[6] Kinetic Concepts, Inc. v. Blue Sky Medical Group, Inc., 554 F.3d 1010, 1019 (Fed. Cir. 2009). In this context, the description of "the present invention" and the consistent usage in the specification serve to limit the term "data network telephone" to fixed devices.

Accordingly, the Court construes "data network telephone" as "a fixed communication device with a communications interface for connection to a data network."

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[5] During the claim construction hearing, Facebook referred to several patents cited on the face of the '759 Patent to show that mobile devices were known in the art. However, of the three references, one describes PDAs and two describe using wireless devices in vehicles. (See U.S. Patent Nos. 5,894,595 (describing PDAs), 5,732,074 (describing wireless devices in a vehicle); EP918423 (describing using mobile phone in a vehicle or for medical monitoring).) None of these references describe wireless devices capable of sending "voice signals as data packets," as required by claim 1. ('759 Patent, claim 1.)

[6] Expanding the claims in this way would also make them incredibly broad. Claim 4 on its face covers any addition of features to a VoIP-capable telephone using a workstation that involves sending a confirmation message. ('759 Patent, claim 4.) Other claims are similarly broad.

D. U.S. PATENT NO. 7,302,698

3. "operating state" (claim 1); "operational state" (claim 20)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No separate construction necessary at this time beyond agreed construction of "state."	a state running on the computing entity that can be distinguished from other states using a set of integrity metrics	a mode of operation of the computing entity in which a plurality of functions provided by the computing platform may be carried out

The terms "operating state" or "operational state" appear in asserted claims 1 and 20 and unasserted claims 3, 6, 13, and 21. The parties agree that that the '698 Patent lexicographically defines "state" as "a mode of operation of the computing entity in which a plurality of functions provided by the computing platform may be carried out." ('698 Patent, 12:65-13:2.) Facebook argues that no further construction is needed. BlackBerry argues that a non-construction would vitiate the terms "operational" and "operating" by allowing an "operating" or "operational state" to mean the same as "state." Instead, BlackBerry proposes to construe "operating/operational state" as a state (1) running on the computing entity, and (2) being distinguishable from other states using a "set of integrity metrics" based on alleged prosecution disclaimer in an appeal brief to the Board of Patent Appeals and Interferences. (Dkt. No. 49-2 ("Appeal Brief").)

The Court finds that the terms "state" and "operating/operational state" are interchangeable as used in the '698 Patent. Although claims are preferably construed to give meaning to all terms, the preference "is not an inflexible rule that supersedes all other principles of claim construction." *SimpleAir, Inc. v. Sony Ericsson Mobile Commc'ns AB*, 820 F.3d 419, 429 (Fed. Cir. 2016). Here, the claims, specification, and prosecution history all support giving the same meaning to both "state" and "operating/operational state."

First, the claims use both "state" and "operating/operational state" without a clear pattern distinguishing the two. For example, claim 6 recites a method of activating "pre-configured operational states," but each of the constituent steps of the method is performed on "states." ('698 Patent, claim 6.) Claim 1 apparently uses "current operating state" to refer to the state running on the computing entity, but other claims (e.g., claim 6) use "operating/operational states" to refer to

any of the possible states for a computer entity, while still others (claim 17) use "activated state" to refer to the state running on the computing entity. (Id., claims 1, 6, 17.) There is thus no clear pattern for use of "operating/operational state," as opposed to "state," in the claims.

Second, the specification makes no clear distinction between "state" and "operating" or operational state," and, on the contrary, defines both terms as "modes of operation." It states that "by the term 'state' when used in relation to a computing entity, it is meant a mode of operation of the computing entity in which a plurality of functions provided by the computing platform may be carried out," but also that "a plurality of modes of operation [are] referred to herein as operating states." ('698 Patent, 12:65-13:2, 10:61-63.) The circular definitions reinforce that "state" and "operating/operational state" both mean "mode of operation."

Finally, the prosecution history confirms that "state" and "operating/operational state" are used interchangeably in the '698 Patent. BlackBerry is correct that the applicant disclaimed claim scope in the Appeal Brief—but the disclaimer is limited to the meanings the applicant "clearly and unambiguously" disavowed. Aylus Networks, Inc. v. Apple Inc., 856 F.3d 1353, 1359 (Fed. Cir. 2017). In the appeal brief, the applicant argued that the examiner erred by equating "states" with "operating systems" and that the "Vineyard" reference did not teach "operational states" because it describes operating systems.[7] (Appeal Br. at 13.) Accordingly, the claims of the '698 Patent cannot now cover "operating systems" under the banner of "states" or "operating states." In other respects, however, the appeal brief confirms that "state" and "operating/operational state" have the same meaning by using the terms interchangeably. (See id. at 3 (describing "operating states" under the heading "states"), 13 ("[T]he Examiner … "conflate[d] 'operating system' with 'state.' The two are not the same. Vineyard simply does not teach or suggest '…operational states….'").)

Last, BlackBerry argues that "operating/operational states" are consistently discussed in the specification as having different levels of trust and being distinguishable based on integrity

[7] Neither "integrity metrics" nor "running on a computer entity" were cited as reasons for distinguishing Vineyard. (See Appeal Br. at 13.) Instead, the term "integrity metrics" appears nine pages earlier in the "Summary of the Claimed Subject Matter" under the heading "States." (Id. at 4.) The term "running on a computer entity" does not appear in the brief.

metrics. BlackBerry initially equated integrity metrics and levels of trust and cited portions of the specification related primarily to trust. The specification, however, makes clear that levels of trust are related to many different factors, not just integrity metrics. ('698 Patent, 11:3-44. But see id., 11:53-57 (calling integrity metric checks a "key" factor).) The specification also suggests that different states "may"—but do not have to—have different levels of trust. (Id., 12:49-53.) In response, BlackBerry argues that different states may have the same level of trust but must nevertheless be distinguishable based on integrity metrics. Facebook responds that distinguishing states based on integrity metrics is captured by claim 17, not claim 1. (See id., claim 17.) Based on the evidence and arguments presented to the Court, there is not a sufficient basis to limit "operating/operational state" to states distinguishable using integrity metrics.

Accordingly, the Court construes "state" and "operating/operational state" to mean "a mode of operation of the computing entity in which a plurality of functions provided by the computing platform may be carried out," but neither term covers operating systems.

E. U.S. PATENT NO. 7,567,575

4. "multimedia data delivery information" (claim 1)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No construction necessary at this time. Alternatively, if construction is needed, "information relating to the delivery of multimedia data."	The phrase is indefinite	information relating to the delivery of multimedia data

The term "multimedia data delivery information" appears in claim 1 of the '575 Patent. The specification uses the term but provides no elaboration or explanation of its meaning. (See '575 Patent, Abstract, 2:67-3:6, 14:10-12, Fig. 5.) BlackBerry thus contends that the term is indefinite under Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 901 (2014) and Irdeto Access, Inc. v. Echostar Satellite Corp., 383 F.3d 1295, 1300 (Fed. Cir. 2004) because "multimedia data delivery information" has no ordinary meaning in the art and the specification

fails to provide a definition for the term. Facebook counters that the plain meaning is clear from the claim language—information relating to the delivery of multimedia data. Facebook relies on the opinion of its expert to argue that a person of ordinary skill in the art would have understood the term to encompass information like origin and destination addresses, date and time of delivery, and type of multimedia data. (Dkt. No. 49-3 ("Akl Decl.") ¶¶ 53-57.)

A patent claim term may be a "coined term" that lacks an ordinary and customary meaning in the field. See, e.g., Iridescent Networks, Inc. v. AT&T Mobility, LLC, 933 F.3d 1345, 1351-53 (Fed. Cir. 2019); Indacon, Inc. v. Facebook, Inc., 824 F.3d 1352, 1357 (Fed. Cir. 2016); Irdeto, 383 F.3d at 1300. In that case, the question is "whether the intrinsic evidence provides objective boundaries to the scope of the term." Iridescent Networks, 106 F.3d at 1353. Coined claim terms "cannot be construed broader than the disclosure in the specification." Indacon, 824 F.3d at 1357; see, e.g., Iridescent Networks, 106 F.3d at 1349-53 (finding "high quality of service connection" to be a "coined" term and affirming construction limiting the term to the minimum parameters disclosed in the specification); Irdeto, 383 F.3d at 1300 (limiting the term "group key" to a subset of a subscriber base where the patentee informed the examiner that the terms "group" and "box" lack an ordinary meaning); Goldenberg v. Cytogen, Inc., 373 F.3d 1158, 1164 (Fed. Cir. 2004) (where parties agreed that the term "marker substance" has no accepted meaning, "we construe [the term] only as broadly as is provided by the patent itself").

The absence of a commonly accepted meaning, however, does not justify a narrow construction where the meaning may be ascertained from the constituent words. See Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1372 (Fed. Cir. 2003) ("[S]imply because a phrase as a whole lacks a common meaning does not compel a court to abandon its quest for a common meaning and disregard established meanings of the individual words."). In Altriris, the court held that a district erred by limiting the term "boot selection flag"—which was "not a phrase commonly used" in the field— to the preferred embodiment instead of applying the ordinary meanings of the words "boot," "selection," and "flag." Id. The Court contrasted the term with "automation code," where "a look at the individual words in the phrase is also unhelpful," and upheld a construction limiting the latter term to the described embodiments only. Id. at 1374-75. In the indefiniteness context,

the Federal Circuit has similarly declined to find indefiniteness where the meaning of a claim term may be ascertained from the meaning of individual words. For example, in Bancorp Services, L.L.C. v. Hartford Life Ins. Co., the court acknowledged that "that the entire term 'surrender value protected investment credits' is not defined in the patent," and the patentee "has not pointed us to any industry publication that defines the term." 359 F.3d 1367, 1372 (Fed. Cir. 2004). Nonetheless, the court found that the term was not indefinite because "the components of the term have well-recognized meanings, which allow the reader to infer the meaning of the entire phrase with reasonable confidence." Id.

In this case, the parties disagree whether the term "multimedia data delivery information" is a coined term. Absent the parties' agreement, the Court looks to intrinsic and extrinsic evidence to determine if a term has an ordinary meaning in the art. As the party arguing for indefiniteness, BlackBerry has the burden to prove by clear and convincing evidence that "multimedia data delivery information" has no ascertainable meaning on its face. See Cox Comms., Inc. v. Sprint Comm. Co. LP, 838 F.3d 1224, 1228 (Fed. Cir. 2016). A claim is only indefinite if it "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." Nautilus, 572 U.S. at 901.

BlackBerry offers the following evidence that "multimedia data delivery information" lacks an ordinary meaning in the art: Dr. Matthew B. Shoemake, BlackBerry's expert, declares that the term "has no meaning whatsoever to those of ordinary skill" and "does not have any known definition" and cites, as support, evidence that online searches of scholarly publications conclude with no results for the term. (Shoemake Decl. ¶¶ 84-86.) Dr. Shoemake further opines that the plain meaning of "multimedia data delivery information" fails to provide clarification of the "objective boundaries" of the claim. (Id. ¶ 87.) Facebook counters with the opinion of its own expert, Robert Akl, and the testimony of an inventor of the '575 Patent, Dr. Robin Chen, who testified that "multimedia data delivery information" is a "generic" term and refers to "all the information you need to deliver your content." (Akl Decl. ¶¶ 53-57; Dkt. No. 58-2 ("Chen Depo.") at 117:24-119:8.) BlackBerry, in turn, argues that Dr. Chen's testimony confirms indefiniteness because Dr. Chen had to infer what he "thinks" the term means.

The Court finds that BlackBerry has failed to meet its burden to show "multimedia data delivery information" lacks an ascertainable meaning by clear and convincing evidence. Although its evidence shows that "multimedia data delivery information" as a whole does not have an established meaning, it fails to show that a person of ordinary skill would not be able to "infer the meaning of the entire phrase with reasonable confidence" from the individual words. Bancorp, 359 F.3d at 1372. The plain meaning construction—information about or relating to multimedia data delivery—is undoubtedly broad, but "breadth is not indefiniteness." BASF Corp. v. Johnson Matthey, Inc., 875 F.3d 1360, 1367 (Fed. Cir. 2017). BlackBerry has offered no evidence that a person of ordinary skill would experience uncertainty or confusion about whether information is related to multimedia data delivery and has therefore failed to demonstrate a lack of reasonable certainty over the objective boundaries of the claim. Nautilus, 572 U.S. at 901. BlackBerry's cited authorities, which concern facially subjective or relative terms, are inapposite because BlackBerry does not contend that "multimedia data delivery information" is subjective or relative. See, e.g., Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1371-73 (Fed. Cir. 2014).

Accordingly, the Court construes "multimedia data delivery information" as "information related to the delivery of multimedia data."

5. "mobile device transmission profile" (claim 1)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No construction necessary at this time	A profile containing information that describes the wireless protocol used by a mobile device, including the wireless channel environment of the mobile device	A profile containing information about transmission characteristics of a mobile device, including the wireless protocol and the wireless channel environment of the mobile device

The term "mobile device transmission profile" appears in asserted claim 1 and unasserted claims 11 and 12 of the '575 Patent. The '575 describes providing the "mobile device transmission profile" to a mobile service platform as part of providing data to a mobile device. ('575 Patent, 13:63-67.) The parties dispute whether the term requires construction. Facebook

argues that it does not and suggests that the plain meaning of the term—transmission profile of a mobile device—is clear. BlackBerry argues that the term has no plain meaning and, indeed, no meaning at all outside of the '575 Patent. BlackBerry thus argues that the term should be construed according to the term's use in the specification. Facebook counters that doing so improperly limits the term to the described embodiments.

The term "mobile device transmission profile" requires construction because the parties dispute its meaning. EON Corp. IP Holdings v. Silver Spring Networks, 815 F.3d 1314, 1320-21 (Fed. Cir. 2016). At the very least, a construction would be helpful to the jury. Beginning with the claim language, the plain meaning of "mobile device transmission profile" suggests a profile containing information about the transmission characteristics of a mobile device. Claim 12 makes clear that the "mobile device transmission profile" may have multiple parameters. ('575 Patent, claim 12.) Claims 13 through 15 state that the "mobile device transmission profile" may be a "modeled transmission profile" or a "measured channel transmission profile," and may include information such as "an estimated available bandwidth quality of service measurement" and a "link delay measurement," (Id., claims 13-15.) Finally, claims 16 and 17 state that that the "mobile device transmission profile" may be used to determine transcoding, as well as to "adaptively control[]" frame rate and frame size. (Id., claims 16-17.) Thus, the claims suggest that the "mobile device transmission profile" relates to information about a transmission channel, such as available bandwidth and link delay, and can be used to adjust transmission characteristics, such as transcoding.[8]

Turning to the specification, the '575 Patent states that in one exemplary architecture, "[t]he transmission profile describes the protocol of the wireless channel environment," such as CDPD or WLAN, which "have substantially different bit rates and as a result need media

[8] The specification explains transcoding as follows: "transcoding refers to the process of decoding and encoding multimedia content, transforming the original content for delivery to mobile devices having different capabilities over communication channels having varying bandwidths, and adaptation refers to the process of handling dynamic fluctuations in the wireless channel conditions by modifying the transcoding process." ('575 Patent, 4:52-58.)

adaptation when traversing between network boundaries." (Id., 7:11-16.) This transmission profile can include a "modeled transmission profile" and a "measured channel transmission profile," where the latter includes "an estimated available bandwidth quality of service measurement" and a "link delay measurement." (Id., 7:16-21.) The transmission profile may specify the protocol of the wireless channel in the following format:

> dev.txprofile=wlan; or alternatively
> dev.txprofile=cdpd;

(Id., 8:22-28.)[9] Throughout the specification, the '575 Patent describes using the mobile device transmission profile in conjunction with a transcoder to adapt data transmission to a mobile device and channel environment. (Id., 6:34-41 (describing accessing the transmission profile by a feedback control processor coupled to an "adaptive" encoder), 13:63-67 ("[T]he mobile service platform 340 obtains a mobile device transmission profile 306 to be used by the transcoder 320 and the multimedia servicer 302 for adapting the data transmission to the mobile device." (emphasis added)), 14:6-9 ("The adaptation occurs periodically to update the status of the encoding bit rate and frame rate and encoding quantization step size. Initially, the transmission profile provides a conservative estimate of the bit rate."), 14:21-23 ("At step 530, the transcoder 320 transcodes the multimedia content according to the device profile 332 and the transmission profile 306.").) The specification defines "adaptation" as "the process of handling dynamic fluctuations in the wireless channel conditions by modifying the transcoding process." (Id., 4:52-58.) This adaptation provides an important benefit of the invention. (See, e.g., id., 3:19-29 ("In a further aspect of the invention, . . . the delivery of the multimedia data continuously adapts to fluctuations of the wireless communication channel conditions."), 9:48-52 ("By adaptively encoding the multimedia data, the system performance degrades gracefully in the presence of

[9] During the claim construction hearing, Facebook argued that any construction that requires a "channel environment" would improperly exclude this embodiment because it contains only protocol information. However, the specification makes clear that these entries are merely "included" in the transmission profile and may not be the profile itself. ('575 Patent, 8:22-24.) Moreover, the specification describes the protocol as the protocol of the "wireless channel environment" and suggests that it provides information about the "bit rate." (Id.) The wireless protocol thus provides information about the wireless channel environment.

errors, unexpected changes in operating conditions such as overload, network congestions or abrupt variations in the end-to-end throughput due to client mobility.").)

Based on this intrinsic evidence, a person of ordinary skill in the art would understand that the purpose of the "mobile device transmission profile" in the '575 Patent is to allow adaptive transmission that adjusts transmission characteristics to the wireless channel environment and mobile device. The question remains whether the specific types of information are required by the claims. The specification states the wireless protocol is important because different protocols "have substantially different bit rates and as a result need media adaptation when traversing between network boundaries." (Id., 7:11-16.) The specification does not describe the wireless protocol of the receiving device—rather, it describes the "protocol of the wireless channel environment." (Id.) The remaining examples, such as bandwidth and link delay, also describe characteristics of the wireless channel environment. (See id., 4:55-56, 7:18-21.) Perhaps most importantly, the specification defines adaptation itself as adaptation to the "wireless channel conditions." (Id., 4:56-58.) Thus, the term "mobile device transmission profile" is properly construed to require information about the wireless channel environment (including, in this case, the wireless protocol used by the device).[10]

Facebook argues that this construction improperly imports limitations from the specification. The specification makes clear, however, that information about the wireless channel environment is necessary to perform the adaptation for which the "mobile device transmission profile" is provided in the first place. Moreover, every embodiment of the '575 Patent describes information about the wireless channel environment (including the protocol of the wireless channel environment), and Facebook has pointed to no embodiment where different information is used. See Wisconsin Alumni Res. Found., 905 F.3d at 1351-52 (affirming a narrow construction where a term was used consistently throughout the specification and Apple pointed to no counter-examples justifying a broader construction). Thus, a narrow construction is necessary to give

[10] "Wireless channel environment" is used herein interchangeably with "wireless channel conditions" or "characteristics," which the Court understands to include information like bit rate, available bandwidth, link delay, and (in the context of the '575 Patent) the wireless protocol.

meaning to the claims and does not improperly import limitations from the specifications.

Accordingly, the Court construes "mobile device transmission profile" as "a profile containing information about transmission characteristics of a mobile device, including the wireless protocol and the wireless channel environment of the mobile device."

F. U.S PATENT NO. 8,429,231

6. "generic signaling interface channel" (claim 1)

Facebook's Proposed Construction	BlackBerry's Proposed Construction	Final Construction
No construction necessary at this time. Alternatively, if construction is needed, "communication channel that can be used to establish an initial connection"	A channel used to establish an initial connection in which local IP addresses are exchanged, and then is no longer used.	a channel used to establish an initial connection in which local IP addresses are exchanged if the parties permit such an exchange and then is no longer used

The term "generic signaling interface channel" appears in asserted claim 1 and unasserted claim 10 of the '231 Patent. The '231 Patent describes establishing a voice communication over instant messaging using three channels: a generic signaling interface ("GSI") channel, a control channel, and an audio channel. ('231 Patent, Abstract, 13:27-38.) Only the GSI channel is required by all independent claims. (Id., claims 1, 10.)

Facebook contends that the phrase should have its plain and ordinary meaning, which it defines as "communication channel that can be used to establish an initial connection." BlackBerry argues that the phrase has no plain and ordinary meaning and that under Irdeto, 383 F.3d at 1300, this "coined" term must be construed only as broadly as provided by the specification. The specification describes the GSI channel in a single paragraph, from which BlackBerry derives each element of its proposed construction:

> In one implementation, a talk tool establishes an active talk session using three communication channels: a Generic Signaling Interface (GSI) channel, a control channel, and an audio channel. The talk tool uses the GSI channel to establish the initial connection. During this connection, the local IP addresses are exchanged. After the initial connection phase is done, the GSI channel is no longer used. By using the GSI channel, the exchange of local IP addresses is only done when both parties permit such an exchange, i.e., by

clicking on the CONNECT UI. These actions protect users from having their local [I]P addresses automatically obtained without their consent.

('231 Patent, 13:27-38 (emphasis added).) As an initial matter, the Court finds that "generic signaling interface channel" has no plain and ordinary meaning. Although Facebook contends that the plain meaning is "communication channel that can be used to establish an initial connection," such meaning is hardly plain from the language of the term itself. BlackBerry's expert, Dr. Shoemake, opines that the term "generic signaling interface channel" "is not readily understood and does not have any known definition" in the field, as evidenced by the complete lack of citations to the term indexed by various search engines. (Shoemake Decl. ¶ 104.) Moreover, the '231 Patent itself provides evidence that the patentee intended to coin "generic signaling interface channel" as a special term. Most notably, the '231 Patent capitalizes the first three words of the term and shortens it to "GSI" channel. ('231 Patent, 13:28-29 ("a Generic Signalizing Interface (GSI) channel").) Both capitalization and abbreviation typically suggest a term that has special meaning beyond the meaning of the individual words. Thus, because the GSI channel is a "coined" term that has no meaning outside of the '231 Patent, it can be construed no broader than provided in the specification.[11] Indacon, 824 F.3d at 1357; Irdeto, 383 F.3d at 1300; Goldenberg, 373 F.3d at 1164.

Turning to the construction, the plain language of "generic signaling interface channel" suggests a channel that is "generic" and provides or connects a "signaling interface." The claims of the '231 Patent require graphical user interfaces, and the specification shows several "signaling" interfaces, such as CONNECT UI. ('231 Patent, claims 1, 10, Fig. 6.) The specification states that the GSI channel is used "to establish the initial connection" for a voice communication, during which "the local IP addresses are exchanged," and then the GSI channel "is no longer used." (Id., 13:27-38.) Importantly, the specification states that by using a GSI

[11] The case differs from "multimedia data delivery information," discussed supra Section E.4, because the language of the individual words also fails to provide sufficient meaning to "generic signaling interface channel." See Altiris, 318 F.3d at 1372-74 (affirming construction narrowing meaning of "automation code" to the described embodiments where "a look at the individual words in the phrase is also unhelpful").

channel, "the exchange of local IP addresses is only done when both parties permit such an exchange, i.e., by clicking on the CONNECT UI." ('231 Patent, 13:33-36.) Using the GSI channel in this way "protect[s] users from having their local [I]P addresses automatically obtained without their consent." (Id., 13:36-38.) Thus, the intrinsic evidence suggests that the GSI channel establishes an initial connection where local IP addresses are exchanged only if the users permit such an exchange by clicking on CONNECT UI, and then is no longer used to protect the users.

Facebook argues that this construction improperly limits the construction to an embodiment and points out that the paragraph on which BlackBerry relies begins with the words, "[i]n one implementation."[12] (Id., 13:27-30.) However, the specification makes clear that the recited actions are key to providing the main advantage of the GSI channel; it states that "[t]hese actions protect users from having their local [I]P addresses automatically obtained without their consent." (Id., 13:36-38.) Thus, the disclosed implementation describes more than a preferred embodiment—it describes how the GSI channel protects users. The GSI channel is the only channel required by all claims and is thus presumably important. (Id., claims 1-18.) And the disclosure in the paragraph captured by BlackBerry's construction is the only disclosure related to the GSI channel in the entire specification. A construction that includes the described steps is therefore the only construction that gives meaning to the importance of the GSI channel and captures the way in which it protects users.

Finally, even if Facebook were correct that BlackBerry's construction imports limitations from the specification, the term "generic signaling interface channel" is a coined term and its construction may be limited to the described embodiment—indeed, it can be no broader than the description in the specification. Indacon, 824 F.3d at 1357; Irdeto, 383 F.3d at 1300. Facebook attempts to distinguish Irdeto on the basis that the patentee in that case informed the examiner that the term at issue had no accepted meaning in the art. 383 F.3d at 1300. However, the Federal

[12] The sentence that begins with "[i]n one implementation" describes the use of three channels to establish a talk session. ('231 Patent, 13:27-30 ("In one implementation, a talk tool establishes an active talk session using three communication channels.").) The claims make clear that only the GSI channel is required. (Id., claims 1, 10.) Thus, the described "implementation" refers to the embodiment that uses three channels, not necessarily to the implementation of the GSI channel.

Circuit has found terms to be "coined" even where no such statements were made—including in cases that Facebook argued. See Iridescent Networks, 933 F.3d at 1351; see also Indacon, 824 F.3d at 1357. Thus, because "generic signaling interface channel" is a coined term, and because the functions recited in the specifications are key to the function of the GSI channel, a narrow construction is appropriate.

Accordingly, the Court construes "generic signaling interface channel" as "a channel used to establish an initial connection in which local IP addresses are exchanged if the parties permit such an exchange and then is no longer used."

CONCLUSION

Based on the analysis set forth above, the Court adopts the foregoing constructions of the disputed terms. The Court SETS a further case management conference for February 7,2020, at 11:00 a.m. The parties are HEREBY ORDERED to submit a further joint case management report pursuant to Patent Standing Order ¶ 13 by no later than January 31, 2020.

IT IS SO ORDERED.

Dated: December 13, 2019

JEFFREY S. WHITE
United States District Judge

United States District Court
Northern District of California