

VOIP-PAL.COM, INC.,

Case No. 18-CV-06054-LHK

Plaintiff,

v.

VERIZON WIRELESS SERVICES, LLC,
et al.,

Defendant.

Plaintiff Voip-Pal.Com, Inc. filed 4 related patent infringement suits against Defendants Apple Inc. (“Apple”), AT&T Corp. (“AT&T”), Twitter Inc. (“Twitter”), and Cellco Partnership d/b/a/ Verizon Wireless Services, LLC (“Verizon”) (collectively, “Defendants”). Plaintiff alleges that Apple, AT&T, and Verizon (but not Twitter) infringe various claims of U.S. Patent No. 8,542,815 (“the ’815 Patent”) to Perreault et al. Plaintiff also alleges that all Defendants infringe various claims of U.S. Patent No. 9,179,005 (“the ’005 Patent”) to Perreault et al. In all 4 related cases, each Defendant filed an omnibus motion to dismiss, thus resulting in 4 omnibus motions to dismiss. However, the briefing on the omnibus motions to dismiss, Plaintiff’s oppositions, and Defendants’ replies is identical in all 4 cases. Thus, for ease of reference and unless otherwise specified, the Court refers to documents filed in the Twitter litigation, Case No. 18-CV-04523-LHK.

Before the Court is Defendants’ consolidated motions to dismiss, which contend that the asserted claims of the patents-in-suit fail to recite patent-eligible subject matter under 35 U.S.C. § 101. ECF No. 71 (“Mot.”). Having considered the submissions of the parties, the relevant law, and the record in this case, the Court GRANTS Defendants’ consolidated motions to dismiss the asserted claims of the ’815 Patent and the ’005 Patent.

I. BACKGROUND

A. Factual Background

1. The Parties

Plaintiff is a Nevada corporation with its principal place of business in Bellevue, Washington. ECF No. 65 at ¶ 5. Plaintiff “owns a portfolio of [Voice over Internet Protocol]

1 patents and patent applications.” *Id.* at ¶ 1.

2 Defendant Twitter is a California corporation with its principal place of business in San
3 Francisco, California. *Id.* at ¶ 6. Twitter uses and sells “messaging services using messaging
4 application software and/or equipment, servers and/or gateways that route messages to computing
5 devices such as smartphones, tablet computers, and personal computers.” *Id.* at ¶ 23.

6 Defendant Apple is a California corporation with its principal place of business in
7 Cupertino, California. Case No. 18-CV-06217-LHK, ECF No. 11 at ¶ 7. Apple “provides,
8 supports and/or operates messaging technology, including iMessage, an instant messaging service
9 supported by Apple’s Messages application and computer infrastructure that allows smartphone
10 and desktop users to send messages including text, images, video and audio to other users.” *Id.* at ¶
11 15.

12 Defendant AT&T is a Delaware corporation with its principal place of business in
13 Bedminster, New Jersey. Case No. 18-CV-06177-LHK, ECF No. 59 at ¶ 2. AT&T “supports and
14 operates a messaging platform . . . [that] allows smartphone users to send messages including text,
15 images, video and audio to others.” *Id.* at ¶ 40. AT&T also offers Voice over Internet Protocol
16 products and services “utilizing equipment at the customer or business premises and a collection
17 of servers and gateways.” *Id.* at ¶ 41. Moreover, AT&T “supports a Wi-Fi based calling platform .
18 . . [that] allows a mobile device to initiate a communication such as a call or text message between
19 a caller, or a first participant, and a callee, or a second participant, using an AT&T assisted voice
20 over IP (“VoIP”) system.” *Id.* at ¶ 42.

21 Defendant Verizon is a Delaware corporation with its principal place of business in
22 Basking Ridge, New Jersey. Case No. 18-CV-06054-LHK, ECF No. 119 at ¶ 2. Verizon “supports
23 and operates a messaging platform . . . [that] allows smartphone users to send messages including
24 text, images, video and audio to others.” *Id.* at ¶ 40. Verizon also offers Voice over Internet
25 Protocol products and services “utilizing equipment at the customer or business premises and a
26 collection of servers and gateways.” *Id.* at ¶ 41. Moreover, Verizon “supports a Wi-Fi based
27 calling platform . . . [that] allows a mobile device to initiate a communication such as a call or a

1 text message between a caller, or a first participant, and a callee, or a second participant, using a
2 [Verizon] assisted voice over IP (“VoIP”) system.” *Id.* at ¶ 42.

3 **2. The Patents**

4 The ’815 Patent and the ’005 Patent (collectively, the “Patents”) are both titled “Producing
5 Routing Messages for Voice over IP Communications.” ’815 Patent at front page; ’005 Patent at
6 front page. The ’815 Patent was filed on November 1, 2007 and was issued on September 24,
7 2013. The ’005 Patent was filed on August 13, 2013 and was issued on November 3, 2015. The
8 ’815 Patent and the ’005 Patent share the same specification.

9 Defendants posit that the asserted claims of the Patents fall within two categories: “multi-
10 network claims” and “single-network claims.” Mot. at 2. Defendants argue that asserted claims 1,
11 7, 12, 27, 28, 72, 73, 92, and 111 of the ’815 Patent and claims 49 and 73 of the ’005 Patent are
12 multi-network claims. *Id.* at 2, 2 n.2. Moreover, Defendants argue that asserted claims 74, 75, 77,
13 78, 83, 84, 94, 96, and 99 of the ’005 Patent are single-network claims. *Id.* at 2, 2 n.3. The
14 differences between the multi-network claims and the single-network claims will be explained
15 below, but for present purposes, the Court finds Defendants’ differentiation of the claims into 2
16 groups useful, and adopts Defendants’ groupings.

17 In addition, Defendants identify claim 1 of the ’815 Patent as representative of the multi-
18 network claims, an identification that Plaintiff does not dispute. Defendants identify claim 74 of
19 the ’005 Patent as representative of the single-network claims, an identification that Plaintiff also
20 does not dispute. Thus, the Court will adopt the parties’ identification of representative claims.
21 Claim 1 of the ’815 Patent shall be representative of the multi-network claims, and claim 74 of the
22 ’005 Patent shall be representative of the single-network claims.

23 In general, the asserted claims of the Patents relate to the process of routing calls (either
24 voice or video) between a caller and a callee, in which calls are classified as either public network
25 calls or private network calls.¹ ’815 Patent at 1:50-54. More specifically, the process of routing the
26

27 ¹ The Patents refer to “callee” to mean the recipient of a call. The Court adopts the Patents’ term of
28 art and will use “callee” to refer to a call recipient.

call involves a computer “super node” routing a call based on “identifiers” associated with both the caller and the callee. *Id.* at 1:54-56. Such identifiers might include what are essentially, in layman’s terms, the phone numbers of the caller and callee. *Id.* at 2:17-25.

A super node contains a call routing controller, which controls communication between a caller and a callee. 3:47-52. A caller sends a request to establish a call to the call routing controller. 1:54-56. The request includes the callee’s identifier. *Id.* The call routing controller then compares the callee identifier with attributes of the caller identifier. *Id.* at 2:8-25. Based on the comparison between the callee identifier and the caller identifier, the call routing controller determines whether the callee is a subscriber to a private network. *Id.* at 2:45-47, 2:65-3:2. If the callee is a subscriber to a private network, then the call routing controller produces a routing message so that the call is directed to the callee’s private network super node. *Id.* at 1:59-62, 14:24-34. If the callee is not a subscriber to a private network, then the call routing controller produces a routing message directing the call through a gateway to a public network. *Id.* at 1:62-

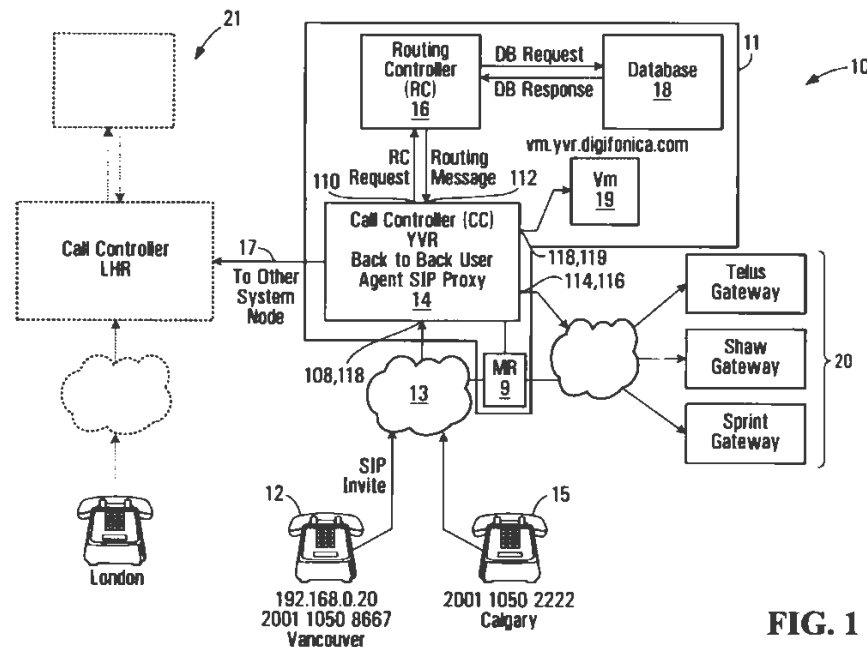


FIG. 1

64.

Figure 1 is helpful to understanding the invention. “[A] system for making voice over IP telephone/videophone calls is shown generally at [item] 10.” *Id.* at 12:50-51. Item 11 is a super

1 node located, for example, in Vancouver, Canada. *Id.* at 12:53-55. The Vancouver super node
2 includes a call controller (item 14), a routing controller (item 16), a database (item 18), a
3 voicemail server (item 19), and a media relay (item 9). *Id.* at 13:10-13. Users of the system such as
4 a Vancouver user (item 12) and a Calgary user (item 15) communicate with the Vancouver super
5 node using the internet (item 13). *Id.* at 13:17-21. It is important to note that the super node is
6 implemented via a computer. According to the specification, it “may be implemented as separate
7 modules on a *common computer system* or by separate computers, for example.” *Id.* at 13:13-14

8 Assume that the Vancouver user (item 12) is attempting to call the Calgary user (item 15).
9 The caller (item 12) will send a message to the Vancouver super node (item 10) and in response,
10 the call controller (item 14) sends a call routing controller request to the routing controller (item
11 16). *Id.* at 14:10-18. The routing controller (item 16) then queries the database (item 18), and then
12 produces a routing message which is sent back to the call controller (item 14). *Id.* The call
13 controller (item 14) communicates with the media relay (item 9) to create a communications link
14 with the callee (item 15) through the media relay (item 9) “of the same node, a different node or to
15 a communications supplier gateway” (item 20). *Id.* at 14:17-23.

16 As aforementioned, Plaintiff asserts the multi-network claims,² of which claim 1 of the
17 ’815 Patent is representative. Moreover, Plaintiff asserts the single-network claims,³ of which
18 claim 74 of the ’005 Patent is representative.

19 Claim 1 of the ’815 Patent recites:

20 1. A process for operating a call routing controller to facilitate communication between
21 callers and callees in a system comprising a plurality of nodes with which callers and callees are
22 associated, the process comprising:

23 in response to initiation of a call by a calling subscriber, receiving a caller identifier and a
24 callee identifier;

25
26
27 ² Claims 1, 7, 12, 27, 28, 72, 73, 92, and 111 of the ’815 Patent and claims 49 and 73 of the ’005
Patent.

28 ³ Claims 74, 75, 77, 78, 83, 84, 94, 96, and 99 of the ’005 Patent.

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1 locating a caller dialing profile comprising a username associated with the caller and a
2 plurality of calling attributes associated with the caller;

3 determining a match when at least one of said calling attributes matches a portion of said
4 callee identifier;

5 classifying the call as a public network call when said match meets public network
6 classification criteria and classifying the call as a private network call when said match meets
7 private network classification criteria;

8 when the call is classified as a private network call, producing a private network routing
9 message for receipt by a call controller, said private network routing message identifying an
10 address, on the private network, associated with the callee;

11 when the call is classified as a public network call, producing a public network routing
12 message for receipt by the call controller, said public network routing message identifying a
13 gateway to the public network.

14 *Id.* at 36:14-38.

15 Claim 74 of the '005 Patent recites:

16 74. A method of routing communications in a packet switched network in which a first
17 participant identifier is associated with a first participant and a second participant identifier is
18 associated with a second participant in a communication, the method comprising:

19 after the first participant has accessed the packet switched network to initiate the
20 communication, using the first participant identifier to locate a first participant profile comprising
21 a plurality of attributes associated with the first participant;

22 when at least one of the first participant attributes and at least a portion of the second
23 participant identifier meet a first network classification criterion, producing a first network routing
24 message identifying an address in a first portion of the packet switched network, the address being
25 associated with the second participant, the first portion being controlled by an entity; and

26 when at least one of the first participant attributes and at least a portion of the second
27 participant identifier meet a second network classification criterion, producing a second network

1 routing message for receipt by the controller, the second network routing message identifying an
2 address in a second portion of the packet switched network, the second portion not controlled by
3 the entity.

4 '005 Patent at 43:41-65.

5 As aforementioned, the parties have divided the asserted claims into two categories: the
6 multi-network claims, and the single network claims. The difference between the two types of
7 claims lies within the claims' preambles. For instance, claim 1 of the '815 Patent, which is
8 representative of the multi-network claims, discloses a "call routing controller to facilitate
9 communication between callers and callees in a system comprising *a plurality of nodes*." '815
10 Patent at 36:14-16 (emphasis added). Thus, claim 1 requires a call routed through a plurality of
11 nodes, which is why it is a *multi-network* claim; each node comprises a different network. On the
12 other hand, claim 74 of the '005 Patent, which is representative of the single-network claims,
13 discloses "routing communications in *a packet switched network*." '005 Patent at 43:41-42
14 (emphasis added). Thus, claim 74 of the '008 Patent refers to routing communications through a
15 single packet switched network, as opposed to multiple nodes (i.e. networks) like in claim 1 of the
16 '815 Patent.

17 **B. Procedural History**

18 Plaintiff has filed suit against Twitter, Apple, Verizon, and AT&T. The parties filed
19 identical omnibus motions to dismiss, oppositions, and replies in all 4 cases. In addition, there are
20 various *inter partes* review proceedings before the Patent Trial and Appeal Board concerning the
21 patents-in-suit. The Court first discusses the IPR proceedings, then the district court suits against
22 Twitter, Apple, Verizon, and AT&T.

23 **1. The IPR Proceedings**

24 On June 15, 2016, Apple petitioned for *inter partes* review ("IPR") of the '005 Patent in
25 proceeding number IPR2016-01198, and for IPR of the '815 Patent in proceeding number
26 IPR2016-01201. Both of Apple's IPR petitions were granted. On the other hand, AT&T also filed
27 3 IPR petitions with the PTAB, which denied institution of AT&T's petitions. ECF No. 77 at 4

1 n.4. Verizon and Twitter do not appear to have filed IPRs of the '005 and '815 Patents. *Id.*

2 On November 20, 2017, the PTAB in Apple's IPRs issued final written decisions rejecting
3 Apple's obviousness arguments and upholding the validity of the '005 and the '815 Patents. *See*
4 IPR2016-01198, Paper 53; IPR2016-01201, Paper 54. However, during the pendency of both of
5 Apple's IPR proceedings, Plaintiff's former chief operating officer and chairman sent
6 unauthorized *ex parte* communications to the PTAB. IPR2016-01198, Paper 70 at 3. In light of
7 these *ex parte* communications, on December 21, 2018, the PTAB sanctioned Plaintiff by
8 allowing a new panel of the PTAB to reconsider the final written decisions on the '005 and the
9 '815 Patents on rehearing. *Id.* at 15. The reconsideration proceedings are currently pending.

10 **2. The Twitter Litigation**

11 On October 6, 2016, Plaintiff first filed suit against Twitter in the District of Nevada. ECF
12 No. 1. On January 31, 2017, the District of Nevada granted the parties' stipulation to stay the
13 Twitter case pending the outcome of the IPR proceedings instituted by Apple challenging the
14 validity of the '815 and '005 Patents. ECF No. 12. On January 26, 2018, the parties submitted a
15 joint status report representing that the Patent Trial and Appeal Board ("PTAB") had issued final
16 written decisions in Apple's IPR proceedings upholding the validity of the Patents. ECF No. 13.
17 The parties requested that the stay of the case be lifted. On February 27, 2018, the District of
18 Nevada lifted the stay. ECF No. 25.

19 On February 28, 2018, Twitter moved to change venue to the Northern District of
20 California. ECF No. 27. On July 23, 2018, the District of Nevada granted Twitter's motion for
21 change of venue to the Northern District of California. ECF No. 41.

22 On November 15, 2018, this Court entered an order consolidating the Twitter action with
23 the separately-filed Apple, AT&T, and Verizon actions (discussed below) for pretrial purposes.
24 ECF No. 64. Also on November 15, 2018, Plaintiff filed a first amended complaint against
25 Twitter. ECF No. 65.

26 **3. The Apple Litigation**

27 On February 9, 2016, Plaintiff first filed suit against Apple in the District of Nevada. Case

No. 18-CV-06217-LHK, ECF No. 1. On April 6, 2016, Plaintiff filed an amended complaint against Apple. *Id.*, ECF No. 6. The Apple litigation was also stayed pending resolution of the IPR proceedings. *Id.*, ECF No. 27. On October 5, 2018, the District of Nevada granted Apple and Plaintiff's stipulation to transfer the case to the Northern District of California. *Id.*, ECF No. 46.

4. The Verizon and AT&T Litigation

On February 10, 2016, Plaintiff first filed suit against both Verizon and AT&T in the same case in the District of Nevada. Case No. 18-CV-06177-LHK, ECF No. 1. On April 6, 2016, Plaintiff filed an amended complaint. *Id.*, ECF No. 2. On May 5, 2016, Plaintiff filed a second amended complaint. *Id.*, ECF No. 3. On July 29, 2016, the District of Nevada granted a stipulation to stay the Verizon and AT&T case pending the IPR proceedings. Case No. 18-CV-06054-LHK, ECF No. 31. On June 25, 2018, the District of Nevada granted an unopposed motion severing AT&T from the Verizon suit. Case No. 18-CV-06177-LHK, ECF No. 4. On October 4, 2018, the District of Nevada granted AT&T and Plaintiff's stipulation to transfer the case to the Northern District of California. *Id.*, ECF No. 21. On November 15, 2018, Plaintiff filed a third amended complaint asserting the Patents against only AT&T, with the Verizon suit proceeding separately. *Id.*, ECF No. 59.

After AT&T was severed from the Verizon suit, the Verizon suit proceeded separately. On October 1, 2018, the District of Nevada granted Plaintiff and Verizon's stipulation to transfer the case to the Northern District of California. Case No. 18-CV-06054-LHK, ECF No. 89. On November 15, 2018, Plaintiff filed a third amended complaint asserting the Patents against only Verizon, with the AT&T suit proceeding separately. *Id.*, ECF No. 119.

5. The Consolidated Motions to Dismiss

On January 10, 2019, Defendants, asserting that the patents-in-suit are directed to unpatentable subject matter under 35 U.S.C. § 101, filed identical consolidated motions to dismiss Plaintiff's complaints. ECF No. 71 ("Mot."); Case No. 18-CV-06217-LHK, ECF No. 75; Case No. 18-CV-06177-LHK, ECF No. 63; Case No. 18-CV-06054-LHK, ECF No. 123.

On February 7, 2019, Plaintiff filed identical oppositions. ECF No. 77; Case No. 18-CV-

06217-LHK, ECF No. 81; Case No. 18-CV-06177-LHK, ECF No. 68; Case No. 18-CV-06054-LHK, ECF No. 127. On February 12, 2019, Plaintiff filed identical corrected oppositions. ECF No. 77 (“Opp.”); Case No. 18-CV-06217-LHK, ECF No. 83; Case No. 18-CV-06177-LHK, ECF No. 69; Case No. 18-CV-06054-LHK, ECF No. 128.⁴

On February 28, 2019, Defendants filed identical consolidated replies. ECF No. 78 (“Reply”); Case No. 18-CV-06217, ECF No. 84; Case No. 18-CV-06177-LHK, ECF No. 70; Case No. 18-CV-06054-LHK, ECF No. 129.

On March 13, 2019, Plaintiff filed identical administration motions for leave to file a sur-reply. ECF No. 79; Case No. 18-CV-06217-LHK, ECF No. 91; Case No. 18-CV-06177-LHK, ECF No. 71; 18-CV-06054-LHK, ECF No. 130. According to Civil Local Rule 7-3(d), once a reply has been filed, “no additional memoranda, papers or letters may be filed without prior Court approval.” The Court finds that the issues have been sufficiently briefed without needing to rely on a sur-reply. Thus, the administrative motions for leave to file a sur-reply are DENIED.

II. LEGAL STANDARD

A. Motion to Dismiss Under Federal Rule of Civil Procedure 12(b)(6)

Pursuant to Federal Rule of Civil Procedure 12(b)(6), a defendant may move to dismiss an action for failure to allege “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged. The plausibility standard is not akin to a ‘probability requirement,’ but it asks for more than a sheer possibility that a defendant has acted

⁴ As an exhibit to the opposition, Plaintiff attached the Declaration of William Mangione-Smith, an expert, in support of Plaintiff’s response to Apple’s IPR petition. ECF No. 76-5 (“Mangione-Smith Declaration”). Plaintiff does not request judicial notice of the Mangione-Smith Declaration. The Court will not consider the Mangione-Smith Declaration as part of its analysis because the Declaration is extrinsic to the complaints and Patents. *See, e.g., Evolutionary Intelligence, LLC v. Sprint Nextel Corp.*, 137 F. Supp. 3d 1157, 1163 n.5 (N.D. Cal. 2015), *aff’d*, 677 Fed. App’x 679 (Fed. Cir. 2017) (“On such [Rule 12] motions, the court may only consider the complaint, documents incorporated by reference in the complaint, and judicially noticed facts. Accordingly, because the Taylor declaration meets none of these criteria, the court does not consider it.”).

unlawfully.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted).

For purposes of ruling on a Rule 12(b)(6) motion, the Court “accept[s] factual allegations in the complaint as true and construe[s] the pleadings in the light most favorable to the nonmoving party.” *Manzarek v. St. Paul Fire & Marine Ins. Co.*, 519 F.3d 1025, 1031 (9th Cir. 2008).

Nonetheless, the Court is not required to “assume the truth of legal conclusions merely because they are cast in the form of factual allegations.” *Fayer v. Vaughn*, 649 F.3d 1061, 1064 (9th Cir. 2011) (quoting *W. Mining Council v. Watt*, 643 F.2d 618, 624 (9th Cir. 1981)). Mere “conclusory allegations of law and unwarranted inferences are insufficient to defeat a motion to dismiss.”

Adams v. Johnson, 355 F.3d 1179, 1183 (9th Cir. 2004). Furthermore, “[a] plaintiff may plead [him]self out of court” if he “plead[s] facts which establish that he cannot prevail on his . . . claim.” *Weisbuch v. County of Los Angeles*, 119 F.3d 778, 783 n.1 (9th Cir. 1997) (quoting *Warzon v. Drew*, 60 F.3d 1234, 1239 (7th Cir. 1995)).

B. Motion to Dismiss for Patent Eligibility Challenges Under 35 U.S.C. § 101

Defendant’s motion argues that the patents-in-suit fail to claim patent-eligible subject matter under 35 U.S.C. § 101 in light of the U.S. Supreme Court’s decision in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). The ultimate question whether a claim recites patent-eligible subject matter under § 101 is a question of law. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017) (“Patent eligibility under § 101 is an issue of law[.]”); *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014) (same). However, the Federal Circuit has identified that there are certain factual questions underlying the § 101 analysis. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368-69 (Fed. Cir. 2018). Accordingly, a district court may resolve the issue of patent eligibility under § 101 by way of a motion to dismiss. *See, e.g., Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 912 (Fed. Cir. 2017) (affirming determination of ineligibility made on 12(b)(6) motion); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1345 (Fed. Cir. 2014) (same).

Although claim construction is often desirable, and may sometimes be necessary, to

1 resolve whether a patent claim is directed to patent-eligible subject matter, the Federal Circuit has
 2 explained that “claim construction is not an inviolable prerequisite to a validity determination
 3 under § 101.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266,
 4 1273 (Fed. Cir. 2012). Where the court has a “full understanding of the basic character of the
 5 claimed subject matter,” the question of patent eligibility may properly be resolved on the
 6 pleadings. *Content Extraction*, 776 F.3d at 1349; *see also Genetic Techs. Ltd. v. Bristol-Myers*
 7 *Squibb Co.*, 72 F. Supp. 3d 521, 539 (D. Del. 2014), *aff’d sub nom. Genetic Techs. Ltd. v. Merial*
 8 *L.L.C.*, 818 F.3d 1369 (Fed. Cir. 2016).

9 C. Substantive Legal Standards Applicable Under 35 U.S.C. § 101

10 1. Patent-Eligible Subject Matter Under 35 U.S.C. § 101

11 Section 101 of Title 35 of the United States Code “defines the subject matter that may be
 12 patented under the Patent Act.” *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). Under § 101, the
 13 scope of patentable subject matter encompasses “any new and useful process, machine,
 14 manufacture, or composition of matter, or any new and useful improvement thereof.” *Id.* (quoting
 15 35 U.S.C. § 101). These categories are broad, but they are not limitless. Section 101 “contains an
 16 important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not
 17 patentable.” *Alice*, 134 S. Ct. at 2354 (citation omitted). These three categories of subject matter
 18 are excepted from patent-eligibility because “they are the basic tools of scientific and
 19 technological work,” which are “free to all men and reserved exclusively to none.” *Mayo*
 20 *Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) (citations omitted). The
 21 U.S. Supreme Court has explained that allowing patent claims for such purported inventions
 22 would “tend to impede innovation more than it would tend to promote it,” thereby thwarting the
 23 primary object of the patent laws. *Id.* However, the U.S. Supreme Court has also cautioned that
 24 “[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural
 25 phenomena, or abstract ideas.” *Alice*, 134 S. Ct. at 2354 (alteration, internal quotation marks, and
 26 citation omitted). Accordingly, courts must “tread carefully in construing this exclusionary
 27 principle lest it swallow all of patent law.” *Id.*

In *Alice*, the leading case on patent-eligible subject matter under § 101, the U.S. Supreme Court refined the “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts” originally set forth in *Mayo*, 566 U.S. at 77. *Alice*, 134 S. Ct. at 2355. This analysis, generally known as the “*Alice*” framework, proceeds in two steps as follows:

First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question, we consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. We have described step two of this analysis as a search for an “‘inventive concept’”—*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Id. (alterations in original) (citations omitted); *see also In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (describing “the now familiar two-part test described by the [U.S.] Supreme Court in *Alice*”).

2. *Alice* Step One—Identification of Claims Directed to an Abstract Idea

Neither the U.S. Supreme Court nor the Federal Circuit has set forth a bright-line test separating abstract ideas from concepts that are sufficiently concrete so as to require no further inquiry under the first step of the *Alice* framework. *See, e.g., Alice*, 134 S. Ct. at 2357 (noting that “[the U.S. Supreme Court] need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case”); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (observing that the U.S. Supreme Court did not “delimit the precise contours of the ‘abstract ideas’ category” in *Alice* (citation omitted)). As a result, in evaluating whether particular claims are directed to patent-ineligible abstract ideas, courts have generally begun by “compar[ing] claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

Two of the U.S. Supreme Court’s leading cases concerning the “abstract idea” exception involved claims held to be abstract because they were drawn to longstanding, fundamental

1 economic practices. *See Alice*, 134 S. Ct. at 2356 (claims “drawn to the concept of intermediated
2 settlement, *i.e.*, the use of a third party to mitigate settlement risk” were directed to a patent-
3 ineligible abstract idea); *Bilski*, 561 U.S. at 611-12 (claims drawn to “the basic concept of
4 hedging, or protecting against risk” were directed to a patent-ineligible abstract idea because
5 “[h]edging is a fundamental economic practice long prevalent in our system of commerce and
6 taught in any introductory finance class” (citation omitted)).

7 Similarly, the U.S. Supreme Court has recognized that information itself is intangible. *See*
8 *Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12 (2007). Accordingly, the Federal Circuit
9 has generally found claims abstract where they are directed to some combination of acquiring
10 information, analyzing information, and/or displaying the results of that analysis. *See*
11 *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094-95 (Fed. Cir. 2016) (claims
12 “directed to collecting and analyzing information to detect misuse and notifying a user when
13 misuse is detected” were drawn to a patent-ineligible abstract idea); *Elec. Power Grp., LLC v.*
14 *Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (claims directed to an abstract idea because
15 “[t]he advance they purport to make is a process of gathering and analyzing information of a
16 specified content, then displaying the results, and not any particular assertedly inventive
17 technology for performing those functions”); *In re TLI Commc’ns LLC*, 823 F.3d at 611 (claims
18 were “directed to the abstract idea of classifying and storing digital images in an organized
19 manner”); *see also Elec. Power Grp.*, 830 F.3d at 1353-54 (collecting cases).

20 However, the determination of whether other types of computer-implemented claims are
21 abstract has proven more “elusive.” *See, e.g., Internet Patents Corp. v. Active Network, Inc.*, 790
22 F.3d 1343, 1345 (Fed. Cir. 2015) (“[P]recision has been elusive in defining an all-purpose
23 boundary between the abstract and the concrete[.]”). As a result, in addition to comparing claims
24 to prior U.S. Supreme Court and Federal Circuit precedents, courts considering computer-
25 implemented inventions have taken varied approaches to determining whether particular claims
26 are directed to an abstract idea.

27 For example, courts have considered whether the claims “purport to improve the

functioning of the computer itself,” *Alice*, 134 S. Ct. at 2359, which may suggest that the claims are not abstract, or instead whether “computers are invoked merely as a tool” to carry out an abstract process, *Enfish*, 822 F.3d at 1336; *see also id.* at 1335 (“[S]ome improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract[.]”). The Federal Circuit has followed this approach to find claims patent-eligible in several cases. *See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259–60 (Fed. Cir. 2017) (claims directed to an improved memory system were not abstract because they “focus[ed] on a ‘specific asserted improvement in computer capabilities’—the use of programmable operational characteristics that are configurable based on the type of processor” (quoting *Enfish*, 822 F.3d at 1336)); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (claims directed to automating part of a preexisting method for 3-D facial expression animation were not abstract because they “focused on a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type”); *Enfish*, 822 F.3d at 1335–36 (claims directed to a specific type of self-referential table in a computer database were not abstract because they focused “on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database)”).

Similarly, the Federal Circuit has found that claims directed to a “new and useful technique” for performing a particular task were not abstract. *See Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017) (holding that “claims directed to a new and useful technique for using sensors to more efficiently track an object on a moving platform” were not abstract); *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1048, 1050 (Fed. Cir. 2016) (holding that claims directed to “a new and useful laboratory technique for preserving hepatocytes,” a type of liver cell, were not abstract); *see also Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (holding that claims for a method to cure rubber that employed a formula to calculate the optimal cure time were not abstract).

Another helpful tool used by courts in the abstract idea inquiry is consideration of whether

the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . . practice long prevalent in our system.” *Alice*, 134 S. Ct. at 2356; *see, e.g., Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (finding an email processing software program to be abstract through comparison to a “brick-and-mortar” post office); *Intellectual Ventures I LLC v. Symantec Corp.*, 100 F. Supp. 3d 371, 383 (D. Del. 2015) (“Another helpful way of assessing whether the claims of the patent are directed to an abstract idea is to consider if all of the steps of the claim could be performed by human beings in a non-computerized ‘brick and mortar’ context.” (citing *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353 (Fed. Cir. 2014))).

Courts will also (or alternatively, as the facts require) consider a related question of whether the claims are, in essence, directed to a mental process or a process that could be done with pencil and paper. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1147 (Fed. Cir. 2016) (claims for translating a functional description of a logic circuit into a hardware component description of the logic circuit were patent-ineligible because the “method can be performed mentally or with pencil and paper”); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (claim for verifying the validity of a credit card transaction over the Internet was patent-ineligible because the “steps can be performed in the human mind, or by a human using a pen and paper”); *see also, e.g., Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (claims for computer-implemented system to enable borrowers to shop for loan packages anonymously were abstract where “[t]he series of steps covered by the asserted claims . . . could all be performed by humans without a computer”).⁵

Regardless of the particular analysis that is best suited to the specific facts at issue in a case, however, the Federal Circuit has emphasized that “the first step of the [*Alice*] inquiry is a

⁵ One court has noted that, like all tools of analysis, the “pencil and paper” analogy must not be unthinkingly applied. *See Cal. Inst. of Tech. v. Hughes Commc’ns Inc.*, 59 F. Supp. 3d 974, 995 (C.D. Cal. 2014) (viewing pencil-and-paper test as a “stand-in for another concern: that humans engaged in the same activity long before the invention of computers,” and concluding that test was unhelpful where “error correction codes were not conventional activity that humans engaged in before computers”).

1 meaningful one, i.e., . . . a substantial class of claims are *not* directed to a patent-ineligible
 2 concept.” *Enfish*, 822 F.3d at 1335. The court’s task is thus not to determine whether claims
 3 merely involve an abstract idea at some level, *see id.*, but rather to examine the claims “in their
 4 entirety to ascertain whether their character as a whole is directed to excluded subject matter,”
 5 *Internet Patents*, 790 F.3d at 1346.

6 **3. *Alice* Step Two—Evaluation of Abstract Claims for an Inventive Concept**

7 A claim drawn to an abstract idea is not necessarily invalid if the claim’s limitations—
 8 considered individually or as an ordered combination—serve to “transform the claims into a
 9 patent-eligible application.” *Content Extraction*, 776 F.3d at 1348. Thus, the second step of the
 10 *Alice* analysis (the search for an “inventive concept”) asks whether the claim contains an element
 11 or combination of elements that “ensure[s] that the patent in practice amounts to significantly
 12 more than a patent upon the [abstract idea] itself.” 134 S. Ct. at 2355 (citation omitted).

13 The U.S. Supreme Court has made clear that transforming an abstract idea to a patent-
 14 eligible application of the idea requires more than simply reciting the idea followed by “apply it.”
 15 *Id.* at 2357 (quoting *Mayo*, 566 U.S. at 72). In that regard, the Federal Circuit has repeatedly held
 16 that “[f]or the role of a computer in a computer-implemented invention to be deemed meaningful
 17 in the context of this analysis, it must involve more than performance of ‘well-understood, routine,
 18 [and] conventional activities previously known to the industry.’” *Content Extraction*, 776 F.3d at
 19 1347-48 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2359); *see also Mortg. Grader*, 811
 20 F.3d at 1324-25 (holding that “generic computer components such as an ‘interface,’ ‘network,’
 21 and ‘database’ . . . do not satisfy the inventive concept requirement”); *Bancorp Servs.*, 687 F.3d at
 22 1278 (“To salvage an otherwise patent-ineligible process, a computer must be integral to the
 23 claimed invention, facilitating the process in a way that a person making calculations or
 24 computations could not.”).

25 Likewise, “[i]t is well-settled that mere recitation of concrete, tangible components is
 26 insufficient to confer patent eligibility to an otherwise abstract idea” where those components
 27 simply perform their “well-understood, routine, conventional” functions. *In re TLI Commc’ns*

1 *LLC*, 823 F.3d at 613 (citation omitted); *see also id.* (ruling that “telephone unit,” “server,” “image
2 analysis unit,” and “control unit” limitations were insufficient to satisfy *Alice* step two where
3 claims were drawn to abstract idea of classifying and storing digital images in an organized
4 manner). “The question of whether a claim element or combination of elements is well-
5 understood, routine and conventional to a skilled artisan in the relevant field is a question of fact”
6 that “must be proven by clear and convincing evidence.” *Berkheimer*, 881 F.3d at 1368. This
7 inquiry “goes beyond what was simply known in the prior art.” *Id.* at 1369.

8 In addition, the U.S. Supreme Court explained in *Bilski* that “limiting an abstract idea to
9 one field of use or adding token postsolution components [does] not make the concept patentable.”
10 561 U.S. at 612 (citing *Parker v. Flook*, 437 U.S. 584 (1978)); *see also Alice*, 134 S. Ct. at 2358
11 (same). The Federal Circuit has similarly stated that attempts “to limit the use of the abstract idea
12 to a particular technological environment” are insufficient to render an abstract idea patent-
13 eligible. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (internal quotation
14 marks and citation omitted); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792
15 F.3d 1363, 1366 (Fed. Cir. 2015) (“An abstract idea does not become nonabstract by limiting the
16 invention to a particular field of use or technological environment, such as the Internet.”).

17 In addition, a “non-conventional and non-generic arrangement of known, conventional
18 pieces” can amount to an inventive concept. *BASCOM Glob. Internet Servs., Inc. v. AT&T
19 Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). For example, in *BASCOM*, the Federal
20 Circuit addressed a claim for Internet content filtering performed at “a specific location, remote
21 from the end-users, with customizable filtering features specific to each end user.” *Id.* Because this
22 “specific location” was different from the location where Internet content filtering was
23 traditionally performed, the Federal Circuit concluded this was a “non-conventional and non-
24 generic arrangement of known, conventional pieces” that provided an inventive concept. *Id.* As
25 another example, in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, the Federal Circuit held that
26 claims relating to solutions for managing accounting and billing data over large, disparate
27 networks recited an inventive concept because they contained “specific enhancing limitation[s]

that necessarily incorporate[d] the invention’s distributed architecture.” 841 F.3d 1288, 1301 (Fed. Cir. 2016), *cert. denied*, 138 S. Ct. 469 (Nov. 27, 2017). The use of a “distributed architecture,” which stored accounting data information near the source of the information in the disparate networks, transformed the claims into patentable subject matter. *Id.*

4. Preemption

In addition to these principles, courts sometimes find it helpful to assess claims against the policy rationale for § 101. The U.S. Supreme Court has recognized that the “concern that undergirds [the] § 101 jurisprudence” is preemption. *Alice*, 134 S. Ct. at 2358. Thus, courts have readily concluded that a claim is not patent-eligible when the claim is so abstract that it preempts “use of [the claimed] approach in all fields” and “would effectively grant a monopoly over an abstract idea.” *Bilski*, 561 U.S. at 612. However, the inverse is not true: “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *FairWarning*, 839 F.3d at 1098 (alteration in original) (citation omitted).

III. DISCUSSION

Defendant’s motion to dismiss contends that the asserted claims of the patents-in-suit fall within the patent-ineligible “abstract ideas” exception to § 101. The Court applies the *Alice* framework described above to these claims. However, the Court need not individually analyze every claim if certain claims are representative. *See generally Alice*, 134 S. Ct. at 2359-60 (finding claims to be patent-ineligible based on analysis of one representative claim). The parties have agreed that claim 1 of the ’815 Patent is representative of the multi-network claims, and claim 74 of the ’005 Patent is representative of the single-network claims.

First, the Court turns to the substantive *Alice* analysis of claim 1 of the ’815 Patent, then to the substantive *Alice* analysis of claim 74 of the ’005 Patent. Lastly, the Court discusses whether there are any factual allegations that preclude resolution of the instant motion under Federal Rule of Civil Procedure 12.

A. *Alice* Step One for Claim 1 of the ’815 Patent—Whether the Claim is Directed to an Abstract Idea

Defendants argue that the asserted claims are directed to an abstract idea because: “(1) they are written in a form free of specific tangible implementation and merely invoke computers as a tool; (2) they are similar to claims found directed to abstract ideas in precedent from the Federal Circuit and district courts; (3) they are directed to functions that could be performed in the human mind or with pen and paper; (4) they are akin to long-standing human activity (switchboard operations; and (5) they are not directed to improving the functioning of a computer itself.” Mot. at 12. Plaintiff responds by arguing that “the asserted claims are not directed to an abstract idea, but are instead generally directed to an improved call routing technology enabling better interoperability of communication networks by, *inter alia*, evaluating a callee identifier provided by a caller in conjunction with caller-specific ‘attributes.’” Opp. at 2. The Court agrees with Defendants.

Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. The step one inquiry “applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish*, 822 F.3d at 1335 (citation omitted). Thus, the Court conducts its step one inquiry by first identifying what the “character as a whole” of claim 1 of the ’815 Patent is “directed to,” and then discussing whether this is an abstract idea. In distilling the character of a claim, the Court is careful not to express the claim’s focus at an unduly “high level of abstraction . . . untethered from the language of the claims,” but rather at a level consonant with the level of generality or abstraction expressed in the claims themselves. *Enfish*, 822 F.3d at 1337; *see also Thales Visionix*, 850 F.3d at 1347 (“We must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful.”).

The Court finds that claim 1 of the ’815 Patent is directed to the abstract idea of routing a call based on characteristics of the caller and callee. Put in plain language, claim 1 discloses: (1) “receiving a caller identifier and a callee identifier” after a call is initiated; (2) “locating a caller dialing profile”; (3) matching the information in the “caller dialing profile” with information in the

1 callee identifier; and (4) classifying the call either as a “public network call” or a “private network
 2 call” based on “classification criteria” and producing the appropriate public network or private
 3 network routing message to be received by a call controller. ’815 Patent at 36:14-38. Claim 1 is
 4 abstract because first, it only discloses generalized steps to carry out generic functions, and
 5 second, because there are long-standing practices analogous to the claimed steps.

6 **1. Claim 1 Discloses Generalized Steps to Carry Out Generic Functions**

7 The Federal Circuit has recognized that “[g]eneralized steps to be performed on a
 8 computer using conventional computer activity are abstract.” *RecogniCorp, LLC v. Nintendo Co.,*
 9 *Ltd.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (internal quotation marks omitted). For instance, the
 10 Federal Circuit found that a patent claim for taking digital images using a telephone, storing the
 11 images, then transmitting the images to a server which receives the images failed step one of *Alice*.
 12 *TLI Comm’ns*, 823 F.3d at 610, 612. In explaining why the patent claim failed step one of *Alice*,
 13 the *TLI* court wrote:

14 Contrary to TLI’s arguments on appeal, the claims here are not
 15 directed to a specific improvement to computer functionality. Rather,
 16 they are directed to the use of conventional or generic technology in
 17 a nascent but well-known environment The specification does
 18 not describe a new telephone, a new server, or a new physical
 19 combination of the two. The specification fails to provide any
 20 technical details for the tangible components, but instead
 21 predominantly describes the system and methods in purely functional
 22 terms. For example, the “telephone unit” of the claims is described as
 23 having “the standard features of a telephone unit” Likewise, the
 24 server is described simply in terms of performing generic computer
 25 functions such as storing, receiving, and extracting data.

26 *Id.* In essence, the *TLI* court found that because the *TLI* patent failed to provide technical details
 27 for the components, but instead described the system and methods “in purely functional terms,”
 28 functions that were generic to a computer, the *TLI* patent claim failed step one of *Alice*. *Id.*

Here, claim 1 is akin to the *TLI* patent claim. Claim 1 describes the purported invention in
 broad, generic, functional terms but fails to identify *how* those ends are achieved, with the
 specification being no clearer.

There is no doubt that the “caller identifier” and the “callee identifier” are generic. Indeed,

1 the specification concedes that the invention did not invent the “caller identifier” or the “callee
2 identifier.” Specifically, the specification discloses that “[t]he caller identifier field may include a
3 [publicly switched telephone network] number or a system subscriber username.” ’815 Patent at
4 17:13-15. Moreover, as examples of callee identifiers, the specification identifies “a callee
5 telephone/videophone number.” *Id.* at 14:49-50. Essentially, the caller and callee identifiers
6 consist of either a telephone number or a username. Neither a telephone number nor a username
7 can be considered unique to the ’815 Patent, as the specification admits.

8 Claim 1 proceeds to claim “locating a caller dialing profile.” *Id.* at 36:20-23. However, the
9 claim itself vaguely defines caller dialing profile as “comprising a username associated with the
10 caller and a plurality of calling attributes associated with the caller.” *Id.* The specification makes
11 clear that the ’815 Patent did not invent the caller dialing profile, but rather, the caller dialing
12 profile is comprised of various identificatory attributes of subscribers that are left undefined in the
13 claim and specification. *See, e.g., id.* at 18:1-4 (“Effectively the dialing profile is a record
14 identifying calling attributes of the caller identified by the caller identifier. More generally, dialing
15 profiles represent *calling attributes of respective subscribers*” (emphasis added).).

16 After “locating a caller dialing profile,” claim 1 proceeds to claim matching the
17 information in the caller dialing profile with information in the callee identifier. *Id.* at 36:23-25.
18 As discussed above, the callee identifier is essentially “a callee telephone/videophone number,” *id.*
19 at 14:49-50, which the ’815 Patent did not invent. The specification makes clear that this matching
20 process is not unique to the Patent either, especially as the ’815 Patent did not invent the callee
21 identifier or any of the information associated with the matching process, such as an area code.
22 *See, e.g., id.* at 2:8-10 (“Using the call classification criteria may involve comparing calling
23 attributes associated with the caller dialing profile with aspects of the callee identifier.”); *id.* at
24 2:17-19 (“Comparing may involve determining whether the callee identifier includes a portion that
25 matches an area code associated with the caller dialing profile.”); *id.* at 2:20-22 (“Comparing may
26 involve determining whether the callee identifier has a length within a range specified in the caller
27 dialing profile.”).

Finally, the call is either classified as a “public network call” or a “private network call” based on undefined “classification criteria,” and the appropriate public network or private network routing message is sent to the call controller. *Id.* at 36:26-38. In essence, this step in claim 1 discloses classifying a call based on these “classification criteria,” then sending a message based on that analysis. According to the specification, this process is as generically-implemented on a computer as the previously-described steps: “The process involves, in response to initiation of a call by a calling subscriber, receiving a callee identifier from the calling subscriber, using call classification criteria associated with the calling subscriber to classify the call as a public network call or a private network call and producing a routing message” *Id.* at 14:25-30; *see also id.* at 2:45-47 (“The process may involve classifying the call as a private network call when the re-formatted callee identifier identifies a subscriber to the private network.”); *id.* at 2:48-50 (“The process may involve determining whether the callee identifier complies with a pre-defined username format and if so, classifying the call as a private network call.”); *id.* at 2:51-57 (“The process may involve causing a database of records to be searched to locate a direct in dial (DID) bank table record associating a public telephone number with the reformatted callee identifier . . . and if a DID bank table record is not found, classifying the call as a public network call.”).

Claim 1 is similar to other claims that courts have found to be abstract. In *West View Research, LLC v. Audi AG*, the Federal Circuit held that claims that “do not go beyond receiving or collecting data queries, analyzing the data query, retrieving and processing the information constituting a response to the initial data query, and generating a visual or audio response to the initial data query” were directed to the abstract idea of collecting and analyzing information. 685 F. App’x 923, 926 (Fed. Cir. 2017). Claim 1 is akin to the *West View Research* court’s holding that “retrieving and processing the information constituting a response to the initial data query” was abstract. *Id.* Here, the initial data query involves locating the caller dialing profile and matching information in the dialing profile with callee information. Then, based on the matching information, a call is classified as a public network or a private network call and a routing message is generated in response, like how in *West View Research* the information “constituting a response

1 to the initial data query” led to “retrieving and processing the information” (i.e., matching
2 information in the dialing profile with callee information) and then “generating a . . . response”
3 (i.e., a routing message). *Id.*

4 Moreover, the claim does not provide for any specific implementation of the abstract idea.
5 The claim does not specify, for instance, the content of the caller and callee identifiers, the
6 technology that matches information in the caller dialing profile with information in the callee
7 identifier, what network classification criteria are used to classify the call as a public network or a
8 private network call, or how the classification is implemented. *See Clarilogic, Inc. v. FormFree*
9 *Holdings Corp.*, 681 Fed. App’x 950, 954 (Fed. Cir. 2017) (“But a method for collection, analysis,
10 and generation of information reports, *where the claims are not limited to how the collected*
11 *information is analyzed or reformed*, is the height of abstraction” (emphasis added)). Rather, the
12 claim recites a generalized solution in broad, functional language—namely, “locating,”
13 “determining,” and “classifying,” a call based on a caller identifier and a callee identifier. *See*
14 *Electric Power Grp.*, 830 F.3d at 1353-54 (“collecting,” “gathering,” “analyzing,” and
15 “presenting” information are “within the realm of abstract ideas”); *Content Extraction*, 776 F.3d at
16 1347 (affirming that “the claims of the asserted patents are drawn to the abstract idea of 1)
17 collecting data, 2) recognizing certain data within the collected set, and 3) storing that recognized
18 data in memory). Otherwise stated, the claim “recite[s] the *what* of the invention, but none of the
19 *how* that is necessary to turn the abstract ideas into a patent-eligible application.” *TDE Petroleum*
20 *Data Sols., Inc. v. AKM Enter., Inc.*, 657 Fed. App’x 991, 993 (Fed. Cir. 2016), *cert. denied*, 137
21 S. Ct. 1230.

22 Plaintiff argues that claim 1 does more than simply describe a function or outcome without
23 describing how to achieve these results in a non-abstract way. Opp. at 11. Plaintiff then cites the
24 specification to argue that the call controller sets up a call based on a routing message. *Id.* For
25 instance, Plaintiff argues that the “‘*routing message*’ that sets up the ‘*call controller*’ is based on a
26 classification of a call destination, which, in turn, was identified by a caller-*specific* evaluation of
27 the ‘*callee identifier*’ (i.e., based on ‘*attributes*’ associated with the initiating caller in their

1 ‘dialing profile.’). *Id.* (emphasis in original).

2 Plaintiff’s argument is unconvincing. *Alice*’s step one inquiry must focus on the *claim*
 3 *language*. See, e.g., *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336,
 4 1345 (Fed. Cir. 2013) (“[T]he important inquiry for a § 101 analysis is to look to the claim.”);
 5 *CMG Fin. Servs., Inc. v. Pac. Tr. Bank, F.S.B.*, 50 F. Supp. 3d 1306, 1326 (C.D. Cal. 2014)
 6 (“None of the elements in these Claims limit the level of their inherent abstraction.”), *aff’d*, 616
 7 Fed. App’x 420 (Fed. Cir. 2015). Here, the claim language is written in vague, functional terms—
 8 “locating,” “determining,” and “classifying,” a call based on a caller identifier and a callee
 9 identifier—to then send a routing message. Moreover, as Defendants point out, “claim 1 fails to
 10 specify *how* attributes are compared to a callee identifier, *what* criteria matter, or *how* a routing
 11 message may be used to ‘set up’ a call controller or ‘identif[y] network infrastructure for a given
 12 call.” Reply at 3-4 (emphasis in original). Therefore, Defendants’ reliance on *Two-Way Media Ltd.*
 13 *v. Comcast Cable Commc’ns, LLC* is entirely appropriate. 874 F.3d 1329 (Fed. Cir. 2017). In *Two-*
 14 *Way Media*, the Federal Circuit found as abstract a claim requiring “the functional results of
 15 ‘converting, ‘routing,’ ‘controlling,’ ‘monitoring,’ and ‘accumulating records’” because the claim
 16 did “not sufficiently describe how to achieve these results in a non-abstract way.” *Id.* at 1337.
 17 Analogously, claim 1 discloses “locating a caller dialing profile” without describing how the caller
 18 dialing profile is located; “determining a match” without specifying any kind of structure or non-
 19 functional language to describe how a match is determined and compared to the callee identifier;
 20 and “classifying a call” without identifying how the call is classified. All the steps recited in claim
 21 1 are generic and are not novel to the ’815 Patent, as discussed above, and nothing in the claim
 22 language limits the claim in such a way that the claim becomes non-abstract.

23 **2. Long-Standing Practices are Analogous to Claim 1**

24 More evidence of the claim’s abstract nature lies in the *Parus Holdings, Inc. v. Sallie Mae*
 25 *Bank* court’s decision. 137 F. Supp. 3d 660 (D. Del. 2015), *aff’d*, 677 Fed. App’x 682 (Fed. Cir.
 26 2017). In *Parus Holdings*, the claim in question called “for using a ‘computer and
 27 telecommunications network for receiving, sending and managing information from a subscriber

1 to the network and from the network to a subscriber.” *Id.* at 672. Here, claim 1 similarly calls for
2 using a computer and telecommunications network for sending information from a subscriber to
3 the network (and ultimately, the callee) by: *receiving* information related to the caller and callee
4 (i.e., the caller identifier and the callee identifier); *managing* that information by locating a caller
5 dialing profile and matching the information in the caller dialing profile with information in the
6 callee identifier; and finally, classifying the call either as a “public network call” or a “private
7 network call” and *sending* a routing message to the computer and telecommunications network.
8 The *Parus Holdings* court found the claim in question to be abstract because the patent claim had
9 “pre-Internet analogs” that could be performed by humans, such as a personal assistant directing
10 calls. *Id.*

11 The *Parus Holdings* court is not alone in holding that such call routing patent claims could
12 be performed by humans. Likewise, in *Telinit Techs., LLC v. Alteva, Inc.*, the court found as
13 abstract a claim requiring: “(1) receiving a data network request; (2) identifying a telephone
14 number associated with that request; (3) signaling a switch to make a call; (4) monitoring the call;
15 and (5) providing a user with notifications if there is a change in the status of the call.” 2015 WL
16 5578604, at *16-17 (E.D. Tex. Sept. 21, 2015). The *Telinit* court found that this “is precisely the
17 function of a telephone operator.” *Id.* Here, claim 1 similarly calls for the computer or
18 telecommunications network to *receive* a data network request for a call by *identifying* a caller
19 identifier and a callee identifier, locating a dialing profile and matching part of the callee’s
20 identifier to the dialing profile, then *signaling* the network via a routing message after the call is
21 classified as a private network or a public network call.

22 Plaintiff attacks the analogy to a switchboard operator, arguing that unlike in claim 1,
23 “switchboard routing used only the callee identifier (*i.e.*, telephone number) to identify, and route
24 to, the destination (*i.e.*, callee) and did not need information about the caller.” Opp. at 16. But even
25 Plaintiff concedes that “telephone operators might have used a *caller’s* identity to properly
26 attribute toll charges, or to record the caller’s number for a call back in case the connection was
27 lost.” *Id.* (emphasis added). Thus, Plaintiff’s own concession renders Plaintiff’s argument

1 impotent.⁶

2 Plaintiff also argues that “Defendants’ assertion that the claims are directed to an abstract
3 idea is even less plausible for means-plus-function claims such as the apparatus in Claim 28 of the
4 ’815 Patent.” Opp. at 14. Plaintiff admits that “Claim 28 is similar to Claim 1,” though there are
5 differences in how each claim is interpreted because claim 28 is a means-plus-function claim. *Id.*
6 In brief, a means-plus-function claim is limited “to the means specified in the written description
7 and equivalents thereof.” *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997). Thus,
8 courts look to limitations imposed in the specification to interpret a means-plus-function claim.

9 Claim 28 of the ’815 Patent recites:

10 28. A call routing apparatus for facilitating communications between callers and callees in
11 a system comprising a plurality of nodes with which callers and callees are associated, the
12 apparatus comprising:

13 receiving means for receiving a caller identifier and a callee identifier, in response to
14 initiation of a call by a calling subscriber;

15 means for locating a caller dialing profile comprising a username associated with the caller
16 and a plurality of calling attributes associated with the caller;

17 means for determining a match when at least one of said calling attributes matches at least
18 a portion of said callee identifier;

19 means for classifying the call as a public network call when said match meets public
20

21 ⁶ Defendants request judicial notice of a YouTube video about 1940s telephone technology. Reply
22 at 9 n.3. The Court may take judicial notice of matters that are either “generally known within the
23 trial court’s territorial jurisdiction” or “can be accurately and readily determined from sources
24 whose accuracy cannot reasonably be questioned.” Fed. R. Evid. 201(b). However, to the extent
25 any facts in materials subject to judicial notice are subject to reasonable dispute, the Court will not
26 take judicial notice of those facts. *Lee v. City of Los Angeles*, 250 F.3d 668, 689 (9th Cir. 2001),
27 *overruled on other grounds by Galbraith v. Cty. of Santa Clara*, 307 F.3d 1119 (9th Cir. 2002).
The Court finds that the contents of the YouTube video are unverified and unsubstantiated, and are
therefore subject to reasonable dispute. Thus, the Court DENIES Defendants’ request for judicial
notice. *See, e.g., Point Ruston, LLC v. Pac. Northwest Regional Council of the United Bhd. Of*
Carpenters and Joiners of Am., 658 F. Supp. 2d 1266, 1279 (W.D. Wash. 2009) (declining to take
judicial notice of YouTube video because “there are questions of authenticity regarding this
proposed evidence, and there appears to be a reasonable dispute concerning the substance of the
evidence”).

network classification criteria;

means for classifying a call as a private network call when said match meets private network classification criteria;

means for producing a private network routing message for receipt by a call controller, when the call is classified as a private network call, said private network routing message identifying an address, on the private network, associated with the callee; and

means for producing a public network routing message for receipt by a call controller, when the call is classified as a public network call, said public network routing message identifying a gateway to the public network.

'815 Patent at 38:53-39:12.

Plaintiff argues that claim 28 corresponds to the algorithms depicted in Figures 8A to 8D. Opp. at 14. The algorithms depicted in Figures 8A to 8D are carried out by the routing controller, discussed above. '815 Patent at 17:43-44 ("The [routing controller] message handler process is shown in greater detail . . . in FIGS 8A through 8D."). However, the routing controller is implemented via generic computer means. As the specification admits, the routing controller "may be implemented as separate modules on a *common computer system* or by separate computers, for example." *Id.* at 13:13-14 (emphasis added). The specification lacks any additional detail as to whether these are specialized computers containing the routing controller. The routing controller circuit itself also contains only generic computer components: a processor, different types of memory, and an [input/output] port." *Id.* at 17:19-21. *See, e.g., SRI Int'l, Inc. v. Cisco Sys., Inc.*, ___F.3d___, 2019 WL 1271160, at *13 (Fed. Cir. Mar. 20, 2019) ("[T]he claims only rely on generic computer components, including a computer, memory, processor, and mass storage device."); *Accenture*, 728 F.3d at 1343 (describing an input/output adapter as a "generic computer component[]"). Moreover, as Plaintiff even admits, "Claim 28 is similar to Claim 1." Opp. at 14. The claim language of claim 28 is a near-verbatim copy of the claim language of claim 1. Above, the Court discussed at length why claim 1's limitations are generic. Thus, the same logic applies to claim 28. Consequently, the algorithmic structure disclosed in Figures 8A to 8D of the '815 Patent

do not actually transform claim 28's limitations into a non-abstract idea. Moreover, claim 1 is still representative of means-plus-function claim 28, an argument that Plaintiff does not challenge.

In sum, the Court finds that claim 1 of the '815 Patent is directed to an abstract idea. The Court next analyzes *Alice* step two.

B. *Alice* Step Two for Claim 1 of the '815 Patent—Whether the Claim Contains an Inventive Concept

Defendants argue that the limitations of Claim 1 are generic computer implementations of the abstract idea, and are thus unpatentable. Mot. at 21. On the other hand, Plaintiff argues that claim 1 recites “a specially programmed routing controller to provide call placement and routing in an individually customizable manner for each caller,” which was unconventional at the time of the invention. Opp. at 18.

“In step two of the *Alice* inquiry, [the Court] search[es] for an ‘inventive concept sufficient to transform the nature of the claim into a patent-eligible application.’ *RecogniCorp*, 855 F.3d at 1327 (quoting *McRO*, 837 F.3d at 1312) (internal quotation marks omitted)). “To save the patent at step two, an inventive concept must be evident in the claims.” *Id.* This inventive concept “must be significantly more than the abstract idea itself,” *BASCOM*, 827 F.3d at 1349; “must be more than well-understood, routine, conventional activity,” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016); “and cannot simply be an instruction to implement or apply the abstract idea on a computer.” *BASCOM*, 827 F.3d at 1349. For example, it may be found in an “inventive set of components or methods,” “inventive programming,” or an inventive approach in “how the desired result is achieved.” *Elec. Power Grp.*, 830 F.3d at 1355. “If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290-91 (Fed. Cir. 2018).

The Court finds that none of the claim’s elements, assessed individually, provides an inventive concept. Claim 1 discloses: (1) “receiving a caller identifier and a callee identifier” after a call is initiated; (2) “locating a caller dialing profile”; (3) matching the information in the “caller

dialing profile” with information in the callee identifier; and (4) classifying the call either as a “public network call” or a “private network call” based on “classification criteria” and producing the appropriate public network or private network routing message to be received by a call controller. ’815 Patent at 36:14-38.

As discussed above, none of claim 1’s elements are unique to the ’815 Patent. In fact, the patent specification confirms that the ’815 Patent did not invent the limitations found in claim 1.

For instance, the specification concedes that the invention did not invent the “caller identifier” or the “callee identifier.” The specification discloses that “[t]he caller identifier field may include a [publicly switched telephone network] number or a system subscriber username.” *Id.* at 17:13-15. Moreover, as examples of callee identifiers, the specification identifies “a callee telephone/videophone number.” *Id.* at 14:49-50. Essentially, the caller and callee identifiers consist of either a telephone number or a username, neither of which is unique to the ’815 Patent.

In addition, “locating a caller dialing profile” does not provide an inventive concept either. The specification makes clear that the ’815 Patent did not invent the caller dialing profile, but rather, the caller dialing profile is comprised of various identificatory attributes of subscribers that are left undefined in the claim and specification. *See, e.g., id.* at 18:1-4 (“Effectively the dialing profile is a record identifying calling attributes of the caller identified by the caller identifier. More generally, dialing profiles represent *calling attributes of respective subscribers*” (emphasis added)). Also, case law has held that locating information is not an inventive concept. In *CyberSource Corp. v. Retail Decisions, Inc.*, the Federal Circuit held that a step requiring “*obtaining information . . . can be performed by a human who simply reads records of . . . transactions from a preexisting database.*” 654 F.3d 1366, 1372 (Fed. Cir. 2011) (emphasis added).

Additionally, matching the information in the “caller dialing profile” with information in the callee identifier is likewise generic, as discussed above. The callee identifier is essentially “a callee telephone/videophone number.” ’815 Patent at 14:49-50. The specification makes clear that this matching process is not unique to the Patent either, especially as the ’815 Patent did not invent the callee identifier or the process of matching the caller dialing profile with the callee identifier.

1 *See, e.g., id.* at 2:8-10 (“Using the call classification criteria may involve comparing calling
2 attributes associated with the caller dialing profile with aspects of the callee identifier.”); *id.* at
3 2:17-19 (“Comparing may involve determining whether the callee identifier includes a portion that
4 matches an area code associated with the caller dialing profile.”); *id.* at 2:20-22 (“Comparing may
5 involve determining whether the callee identifier has a length within a range specified in the caller
6 dialing profile.”).

7 Moreover, case law has held that the process of matching information does not provide an
8 inventive concept. In *Intellectual Ventures I LLC v. Symantec Corp.*, the method claim in question
9 called for receiving data, *determining whether the received data matched certain characteristics*,
10 and outputting data based on the determining step. 838 F.3d 1307, 1313 (Fed. Cir. 2016). The
11 Federal Circuit found that none of these steps provided an inventive concept because the claim
12 performs “generic computer functions.” *Id.* at 1315.

13 Furthermore, classifying the call either as a “public network call” or a “private network
14 call” based on “classification criteria” and producing the appropriate public network or private
15 network routing message to be received by a call controller does not provide an inventive concept
16 either. Importantly, this process is performed on a generic computer, upon which the claimed step
17 does not improve. The specification discloses that the super node, which includes the routing
18 controller, “may be implemented as separate modules on a common computer system or by
19 separate computers.” ’815 Patent at 13:10-14. Case law confirms that the process does not provide
20 an inventive concept. In *Accenture*, the claim in question applied a set of rules to a database of
21 tasks. *Accenture*, 728 F.3d at 1345. The *Accenture* court found the claim to be “generalized
22 software components arranged to implement an abstract concept on a computer.” *Id.* Here, the
23 classification criteria provide the set of rules, as described in *Accenture*, which is applied to the
24 task of classifying and routing a call. As for the process of sending a routing message, the Federal
25 Circuit has held that “receiv[ing] and send[ing] information over a network . . . is not even
26 arguably inventive.” *buySAFE*, 765 F.3d at 1355.

27 Thus, none of claim 1’s elements, assessed individually, provides an inventive concept.

Moreover, the ordered combination of these elements also does not yield an inventive concept. In *BASCOM*, the Federal Circuit held that “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” 827 F.3d at 1350. However, the arrangement of claim 1’s elements are conventional, as evidenced by *Two-Way Media*.

In *Two-Way Media*, the claim in question was directed to “first processing the data, then routing it, [and] controlling it” 874 F.3d at 1339. This was done in the context of “transmitting message packets over a communications network.” *Id.* at 1334. Here, claim 1 discloses a similar structure to the *Two-Way Media* claim. First, data is *processed* by “locating a caller dialing profile” after a call is initiated and the caller identifier and callee identifier is received, and then the information in the “caller dialing profile” is matched with information in the callee identifier. Then, data is *routed* by classifying the call as either a public network call or a private network call. Lastly, the data is *controlled* by sending the appropriate routing message to the network controller in order to control where the call goes. The *Two-Way Media* court invalidated the claim, called the ordering of claim elements a “conventional ordering of steps . . . with conventional technology to achieve its desired result.” *Id.* Thus, claim 1’s elements are also a conventional ordering of steps.

Plaintiff cites to *DDR Holdings*, a case Plaintiff claims is analogous, for the proposition that “claims [that] solve problems necessarily rooted in network technology . . . are eligible” for a patent. Opp. at 23 (citing *DDR Holdings*, 773 F.3d at 1257, 1259) (emphasis in original). However, *DDR Holdings* is distinguishable from the instant case because the *DDR Holdings* patent claims “specify how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” *DDR Holdings*, 773 F.3d at 1258. Here, we have the situation where generic aspects of computing—routing a call using a generic call controller—are performed using generic elements the ’815 Patent did not invent—caller and callee identifiers, a dialing profile, and classification criteria. Neither the ’815 Patent specification nor claims provide any details on how

interactions with the internet are manipulated to yield a desired result, like in *DDR Holdings*. Thus, claim 1 is much more analogous to the claim in *Two-Way Media*, in which the claim in question in a telecommunications patent was described and implemented in purely generic terms.

Therefore, claim 1 of the '815 Patent does not contain an inventive concept. The Court finds that at *Alice* step one, claim 1 of the '815 Patent is directed to an abstract idea. At *Alice* step two, there is no inventive concept sufficient to save the claim. Thus, the Court concludes that the multi-network claims—claims 1, 7, 12, 27, 28, 72, 73, 92, and 111 of the '815 Patent and claims 49 and 73 of the '005 Patent—of which claim 1 of the '815 Patent is representative, are patent-ineligible under § 101. Defendants' motion to dismiss the multi-network claims is therefore GRANTED.

C. *Alice* Step One for Claim 74 of the '005 Patent—Whether the Claim is Directed to an Abstract Idea

The arguments in Defendants' motion to dismiss and Plaintiff's opposition are identical as to both claim 1 of the '815 Patent and claim 74 of the '005 Patent. In fact, in Defendants' motion and Plaintiff's opposition, the § 101 analysis of claim 1 of the '815 Patent and claim 74 of the '005 Patent is combined.

Defendants argue that the asserted claims are directed to an abstract idea because: "(1) they are written in a form free of specific tangible implementation and merely invoke computers as a tool; (2) they are similar to claims found directed to abstract ideas in precedent from the Federal Circuit and district courts; (3) they are directed to functions that could be performed in the human mind or with pen and paper; (4) they are akin to long-standing human activity (switchboard operations; and (5) they are not directed to improving the functioning of a computer itself." Mot. at 12. Plaintiff argues that "the asserted claims are not directed to an abstract idea, but are instead generally directed to an improved call routing technology enabling better interoperability of communication networks by, *inter alia*, evaluating a callee identifier provided by a caller in conjunction with caller-specific 'attributes.'" Opp. at 2. The Court agrees with Defendants.

Step one of the *Alice* framework directs the Court to assess "whether the claims at issue are

directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. The step one inquiry “applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish*, 822 F.3d at 1335 (citation omitted). Thus, the Court conducts its step one inquiry by first identifying what the “character as a whole” of claim 1 of the ’815 Patent is “directed to,” and then discussing whether this is an abstract idea. In distilling the character of a claim, the Court is careful not to express the claim’s focus at an unduly “high level of abstraction . . . untethered from the language of claims,” but rather at a level consonant with the level of generality or abstraction expressed in the claims themselves. *Enfish*, 822 F.3d at 1337; *see also Thales Visionix*, 850 F.3d at 1347 (“We must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful.”).

Like for claim 1 of the ’815 Patent, the Court finds that claim 74 of the ’005 Patent is directed to the abstract idea of routing a call based on characteristics of the caller and callee. Put in plain language, claim 74 discloses: (1) using a “participant identifier” to locate a “first participant profile” comprising of “attributes associated with the first participant,” who starts a communication with a second participant; (2) sending a “first network routing message” that identifies an address in a first portion of the network for receipt by a controller when some information about the first participant and a portion of a “second participant identifier” meet a criterion; and (3) sending a “second network routing message” that identifies an address in a second portion of the network for receipt by a controller when some information about the first participant and a portion of the “second participant identifier” meet a second criterion. ’005 Patent at 43:41-65. In essence, claim 74 of the ’005 Patent is essentially the same as claim 1 of the ’815 Patent, but with two routing messages being sent as opposed to just the one routing message being sent in claim 1 of the ’815 Patent. For this reason, claim 74 of the ’005 Patent suffers from the same defects as claim 1 of the ’815 Patent. Claim 74 is abstract because first, it only discloses generalized steps to carry out generic functions, and second, because there are long-standing practices analogous to the claimed steps.

1. Claim 74 Discloses Generalized Steps to Carry Out Generic Functions

For instance, as discussed above, the *TLI* court found that because the *TLI* patent failed to provide technical details for components, but instead described the system and methods “in purely functional terms,” functions that were generic to a computer, the *TLI* patent claim failed step one of *Alice*. *TLI*, 823 F.3d at 612. Here, claim 74 of the ’005 Patent describes the methods in purely functional terms with functions generic to a computer. Thus, claim 74 is directed to an abstract idea.

The idea of using a “participant identifier” to locate a “first participant profile” comprising of “attributes associated with the first participant,” who starts a communication with a second participant is purely functional language that is generic to a computer. The phrase “participant identifier” is not found in the ’005 Patent specification. However, “participant identifier” is akin to the aforementioned caller identifier and callee identifier in claim 1 of the ’815 Patent because the participant identifier functions in the same way as the caller and callee identifiers. For instance, in claim 1 of the ’815 Patent, a portion of the callee identifier is used to match various attributes associated with a caller, and a routing message is sent out based on the match. ’815 Patent at 36:23-25. Likewise, in claim 74 of the ’005 Patent, a portion of the second participant identifier is used in conjunction with various attributes associated with a first participant, and a routing message is sent out based on whether a portion of the second participant identifier and the attributes associated with a first participant meet a classification criterion. ’005 Patent at 43:51-58. Moreover, both claims refer to the use of “identifiers,” which is defined in the specification as caller and callee identifiers.

Thus, “participant identifier” is defined in the specification as “a [publicly switched telephone network] number or a system subscriber username.” *Id.* at 17:23-24. The specification additionally identifies an identifier as “telephone/videophone number.” *Id.* at 14:48-49. Essentially, an identifier consists of either a telephone number or a username. A telephone number or a username can hardly be considered unique to the ’005 Patent, as the specification admits and as common sense dictates.

Likewise, the “first participant profile” of claim 74 is equally as generic. The specification never uses the phrase “participant profile,” but the Court finds participant profile equivalent to the dialing profile discussed above in relation to the ’815 Patent because the participant profile functions in the same way as the dialing profile. The participant profile comprises “a plurality of attributes associated with the . . . participant,” *id.* at 43:48-50, much like how a caller dialing profile comprises “a plurality of calling attributes associated with the caller,” ’815 Patent at 36:20-22. The specification makes clear that the ’005 Patent did not invent the participant profile, but rather, the participant profile is comprised of various identificatory attributes of subscribers that are left undefined in the claim and specification. *See, e.g.*, ’005 Patent at 18:10-13 (“Effectively the dialing profile is a record identifying calling attributes of the caller identified by the caller identifier. More generally, dialing profiles represent *calling attributes of respective subscribers*” (emphasis added)).

Then, claim 74 proceeds to claim, without further detail, starting a communication between a first participant and a second participant. *Id.* at 43:46-47. The process of initiating a communication is described in the specification as using a generic computer with a routing controller to connect two parties. The specification discloses that the super node, which includes the routing controller that routes communications, “may be implemented as separate modules on a common computer system or by separate computers, for example.” *Id.* at 13:21-22.

In the next step of claim 74, claim 74 claims sending a “first network routing message” that identifies an address in a first portion of the network for receipt by a controller when some information about the first participant and a portion of a “second participant identifier” meet a criterion. As discussed above, a routing message is sent by the routing controller, a component of the super node, which is comprised of generic computers. Therefore, the process of sending a network routing message is generic. For instance, a claim that recited steps “by which data was obtained . . . and *transmitted by a telephone* . . . and sent over a channel to different destinations” was held to represent “nothing more than a disembodied concept of data sorting and storage.” *Morales v. Square, Inc.*, 75 F. Supp. 716, 725 (W.D. Tex. 2014), *aff’d*, 621 Fed. App’x 660 (Fed.

Cir. 2015) (citing *CyberFone Sys., LLC v. Celco P'ship*, 885 F. Supp. 2d 710, 719 (D. Del. 2012)). Moreover, the claim does not define what “criterion” must be met for the first network routing message to be sent. Claim 74 thereby repeats the same mistake as claim 1 of the ’815 Patent in that claim 74 recites steps in very vague terms. As the Federal Circuit has held, “[g]eneralized steps to be performed on a computer using conventional computer activity are abstract.” *RecogniCorp*, 855 F.3d at 1326.

The final step of claim 74 claims sending a “second network routing message” that identifies an address in a second portion of the network for receipt by a controller when some information about the first participant and a portion of the “second participant identifier” meet a second criterion. This final step is near-identical to the above-described step, the differences being that a “second network routing message” is sent when another criterion is met by information about the first participant and a portion of a “second participant identifier.” As the Court has discussed at length, the process of sending a network routing message is not unique to the Patent, and is implemented using generic computers.

2. Long-Standing Practices are Analogous to Claim 74

As claim 74 is quite similar to claim 1 of the ’815 Patent, *Parus Holdings* again confirms the claim’s abstract nature. 137 F. Supp. 3d 660. In *Parus Holdings*, the claim in question called “for using a ‘computer and telecommunications network for receiving, sending and managing information from a subscriber to the network and from the network to a subscriber.’” *Id.* at 672. Here, claim 74 similarly calls for using a computer and telecommunications network for sending information from a subscriber to the network (and ultimately, the second participant) by: *receiving* a first participant profile comprising of attributes associated with the first participant, who starts a communication with a second participant; and then *sending* two network routing messages for receipt by a controller after some information about the first participant and a portion of a second participant identifier meet a criterion. The *Parus Holdings* court found the claim in question to be abstract because the patent claim had “pre-Internet analogs” that could be performed by humans, such as a personal assistant directing calls. *Id.*

The *Parus Holdings* court is not alone in holding that such call routing patent claims could be performed by humans. Likewise, in *Telinit*, the court found as abstract a claim requiring: “(1) receiving a data network request; (2) identifying a telephone number associated with that request; (3) signaling a switch to make a call; (4) monitoring the call; and (5) providing a user with notifications if there is a change in the status of the call.” 2015 WL 5578604, at *16-17. The *Telinit* court found that this “is precisely the function of a telephone operator.” *Id.* Here, claim 74 similarly calls for the computer or telecommunications network to *receive* a first participant profile comprising of attributes associated with the first participant, who starts a communication with a second participant; *identify* whether information about the first participant and a portion of a second participant identifier meet a criterion; and then *signal* the controller by sending network routing messages.

Therefore, the Court finds that claim 74 of the ’005 Patent is directed to an abstract idea.

D. *Alice* Step Two for Claim 74 of the ’005 Patent—Whether the Claim Contains an Inventive Concept

Defendants argue that claim 74 contains “only well-known, routine, and conventional functionality that does not amount to significantly more than the abstract idea itself.” Mot. at 20. Plaintiff responds by arguing that the claim recites “a specially programmed routing controller to provide call placement and routing in an individually customizable manner for each caller,” a controller that was unconventional at the time of the invention. Opp. at 18.

As aforementioned, in “step two of the *Alice* inquiry, [the Court] search[es] for an ‘inventive concept sufficient to transform the nature of the claim into a patent-eligible application.” *RecogniCorp*, 855 F.3d at 1327 (quoting *McRO*, 837 F.3d at 1312) (internal quotation marks omitted)). “To save the patent at step two, an inventive concept must be evident in the claims.” *Id.* This inventive concept “must be significantly more than the abstract idea itself,” *BASCOM*, 827 F.3d at 1349; “must be more than well-understood, routine, conventional activity,” *Affinity Labs of Texas*, 838 F.3d at 1262; “and cannot simply be an instruction to implement or apply the abstract idea on a computer.” *BASCOM*, 827 F.3d at 1349. For example, it may be found

1 in an “inventive set of components or methods,” “inventive programming,” or an inventive
2 approach in “how the desired result is achieved.” *Elec. Power Grp.*, 830 F.3d at 1355. “If a
3 claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-
4 understood techniques, the claim has not been transformed into a patent-eligible application of an
5 abstract idea.” *BSG Tech LLC*, 899 F.3d at 1290-91.

6 The Court finds that none of the claim’s elements, assessed individually, provides an
7 inventive concept. Claim 74 recites: (1) using a “participant identifier” to locate a “first participant
8 profile” comprising of “attributes associated with the first participant,” who starts a
9 communication with a second participant; (2) sending a “first network routing message” that
10 identifies an address in a first portion of the network for receipt by a controller when some
11 information about the first participant and a portion of a “second participant identifier” meet a
12 criterion; and (3) sending a “second network routing message” that identifies an address in a
13 second portion of the network for receipt by a controller when some information about the first
14 participant and a portion of the “second participant identifier” meet a second criterion. ’005 Patent
15 at 43:41-65.

16 As discussed above, none of claim 74’s elements are unique to the ’005 Patent. In fact, the
17 patent specification confirms that the ’005 Patent did not invent the limitations found in claim 1.

18 First, using a “participant identifier” to locate a “first participant profile” comprising of
19 “attributes associated with the first participant,” who starts a communication with a second
20 participant is not an inventive concept. For instance, “participant identifier” is defined in the
21 specification as “a [publicly switched telephone network] number or a system subscriber
22 username.” *Id.* at 17:23-24. The specification additionally identifies an identifier as
23 “telephone/videophone number.” *Id.* at 14:48-49. At bottom, an identifier consists of either a
24 telephone number or a username. Use of a telephone number or a username, which are not unique
25 to the ’005 Patent, can hardly be considered inventive enough to lift claim 74 out of abstractness.
26 Moreover, the specification makes clear that the ’005 Patent did not invent the participant profile,
27 but rather, the participant profile is comprised of various identificatory attributes of subscribers

left undefined by the claim and specification. *See, e.g., Id.* at 18:10-13 (“Effectively the dialing profile is a record identifying calling attributes of the caller identified by the caller identifier. More generally, dialing profiles represent calling attributes of respective subscribers.”). In addition, the concept of locating information using the participant identifier is not an inventive concept. In *CyberSource Corp.*, the Federal Circuit held that a step requiring “*obtaining information . . . can be performed by a human who simply reads records of . . . transactions from a preexisting database.*” 654 F.3d at 1372.

Moreover, sending a “network routing message” that identifies an address in a portion of the network for receipt by a controller when some information about the first participant and a portion of a “second participant identifier” meet a criterion is also not inventive. This process is analogous to a claim found in *Intellectual Ventures I*. In *Intellectual Ventures I*, the claim in question called for determining whether the received data matched certain characteristics and outputting data based on the determining step. 838 F.3d at 1313. The Federal Circuit held that the steps provided did not provide an inventive concept because the claim performs “generic computer functions.” *Id.* at 1315. Here, whether information about the first participant and a portion of the second participant identifier meet a criterion is the same as the *Intellectual Venture I*’s determination of whether data matched certain characteristics. In claim 74, the determination is made by deciding, based on information about the first participant and a portion of the second participant identifier, whether a criterion is met. Then, claim 74 discloses sending a network routing message when the determining step has concluded. This is analogous to the *Intellectual Venture I*’s step of outputting data based on the determining step, as claim 74’s routing message is sent after the determination of whether the criterion is met. Moreover, as for the process of sending a routing message, the Federal Circuit has held that “receiv[ing] and send[ing] information over a network . . . is not even arguably inventive.” *buySAFE*, 765 F.3d at 1355.

Thus, none of claim 74’s elements, assessed individually, provides an inventive concept. Furthermore, the ordered combination of these elements also does not yield an inventive concept. In *BASCOM*, the Federal Circuit held that “an inventive concept can be found in the non-

1 conventional and non-generic arrangement of known, conventional pieces.” 827 F.3d at 1350.
2 However, the arrangement of claim 74’s elements are conventional, as evidenced by *Two-Way*
3 *Media*.

4 In *Two-Way Media*, the claim in question was directed to “first processing the data, then
5 routing it, [and] controlling it” 874 F.3d at 1339. This was done in the context of
6 “transmitting message packets over a communications network.” *Id.* at 1334. The *Two-Way Media*
7 court invalidated the claim, called the ordering of claim elements a “conventional ordering of steps
8 . . . with conventional technology to achieve its desired result.” *Id.* Here, claim 74 is analogous to
9 the *Two-Way Media* claim. First, data is *processed* by locating a first participant profile
10 comprising of attributes associated with the first participant, these attributes being used in
11 conjunction with a second participant identifier to see if a criterion is met. Then, telephonic
12 communications data is *routed* and *controlled* when network routing messages for receipt by a
13 controller are produced.

14 Therefore, claim 74 of the ’005 Patent does not contain an inventive concept. The Court
15 finds that at *Alice* step one, claim 74 of the ’005 Patent is directed to an abstract idea. At *Alice* step
16 two, there is no inventive concept sufficient to save the claim. Thus, the Court concludes that the
17 single-network claims—claims 74, 75, 77, 78, 83, 84, 94, 96, and 99 of the ’005 Patent—of which
18 claim 74 of the ’005 Patent is representative, are patent-ineligible under § 101. Defendants’
19 motion to dismiss the single-network claims is therefore GRANTED.

20 **E. Whether there Exist Factual Questions that Preclude Resolution of the Instant**
21 **Motion under Rule 12**

22 Plaintiff’s opposition cites disclosures in the complaints that Plaintiffs argue preclude
23 resolution of the instant motion under Rule 12. Opp. at 7. In particular, Plaintiff’s opposition
24 mentions two specific features—user-specific calling and transparent routing—disclosed by the
25 complaints that purportedly demonstrate that the asserted claims are not directed to abstract ideas.

26 First, Plaintiff argues that claim 1 discloses “user-specific calling,” which precludes a
27 finding of abstractness because in user-specific calling, “[d]ifferent callers with differently

1 configured attributes could dial the *same* string of digits to reach *different* destinations because the
2 meaning of the callee identifier is different based on each caller's attributes." Opp. at 7-8
3 (emphasis in original). Plaintiff cites the '815 Patent specification to show that user-specific
4 calling exists because the Patent describes "calling attributes associated with the caller" to
5 evaluate a "callee identifier" to identify the callee. *Id.* at 7 (citing '815 Patent at 36:15-23).
6 Moreover, Plaintiff states that "[u]ser-specific call placement provides benefits such as the ability
7 to support local [public switched telephone network] styles (or even unconventional styles) of
8 calling no matter where in the world a caller is located." *Id.* at 8.

9 However, the '815 Patent's *claim language* contains no mention of these alleged benefits
10 of user-specific calling, such as supporting local public switched telephone network telephone
11 number styles or unconventional styles of calling regardless of where a caller is located. After all,
12 *Alice's* step one inquiry must focus on the *claim language*. See, e.g., *Accenture*, 728 F.3d at 1345
13 ("[T]he important inquiry for a § 101 analysis is to look to the claim."); *CMG Fin. Servs., Inc.*, 50
14 F. Supp. 3d 1306, 1326 ("None of the elements in these Claims limit the level of their inherent
15 abstraction."), *aff'd*, 616 Fed. App'x 420 (Fed. Cir. 2015). Also, the patent specification fails to
16 disclose user-specific calling. Regardless, even if the specification disclosed user-specific calling,
17 as the Federal Circuit has held, "details from the specification cannot save a claim directed to an
18 abstract idea that recites generic computer parts." *Synopsys, Inc.*, 839 F.3d at 1149.

19 Second, Plaintiff also argues that the asserted claims disclose "transparent routing,"
20 rendering the claims non-abstract. Opp. at 8. Plaintiff asserts that the "improved call routing
21 controller, system and method of the claim invention also enables using a caller's attributes to
22 evaluate a callee identifier against network routing criteria to cause a call to *automatically* be
23 routed over system network . . . or another network interconnected to the system network via a
24 gateway . . . *transparently to the user*—without the user manually specifying the network to use
25 for routing by the user's manner of placing the call (e.g., by dialing a prefix of "9" to make a
26 [public switched telephone network] call)." *Id.*

27 However, as aforementioned, *Alice's* step one inquiry must focus on the claim language.

1 *See, e.g., Accenture*, 728 F.3d at 1345 (“[T]he important inquiry for a § 101 analysis is to look to
 2 the claim.”). Like with user-specific calling, the concepts embodied by transparent routing appear
 3 nowhere in the claims. As Defendants correctly point out, the “claims do not recite any limitation
 4 regarding what the caller specifies, or does not specify, to place a call, nor do the claims refer to a
 5 caller making a [public switched telephone network] call without dialing the prefix ‘9.’” Reply at
 6 6.

7 At bottom, under Federal Circuit law, “[w]hether a claim recites patent eligible subject
 8 matter is a question of law which . . . has in many cases been resolved on motions to dismiss or
 9 summary judgment.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).⁷ “As our cases
 10 demonstrate, not every § 101 determination contains genuine disputes over the underlying facts
 11 material to the § 101 inquiry.” *Id.* “In some cases, when improvements in the specification are
 12 *captured in the claims*, whether an element or combination of elements is well-understood
 13 becomes a question of fact.” *Symantec Corp. v. Zscaler, Inc.*, 2018 WL 3539269, at *2 (N.D. Cal.
 14 July 23, 2018) (citing *Berkheimer*, 881 F.3d at 1368-69) (emphasis added). Here, however,
 15 attorney argument in the complaint cannot save the claims because the purported improvements
 16 have not been captured in the claim language.

17 **IV. CONCLUSION**

18 For the foregoing reasons, the Court finds that the asserted multi-network claims (claims 1,
 19 7, 12, 27, 28, 72, 73, 92, and 111 of the ’815 Patent and claims 49 and 73 of the ’005 Patent) and
 20 the asserted single-network claims (claims 74, 75, 77, 78, 83, 84, 94, 96, and 99 of the ’005
 21 Patent) are directed to unpatentable subject matter and are thus invalid under 35 U.S.C. § 101. The
 22 Court therefore GRANTS Defendants’ omnibus motions to dismiss.

23 **IT IS SO ORDERED.**

24
 25
 26 ⁷ For this reason, the Court rejects Plaintiff’s alternative argument that the motion is premature.
 27 Opp. at 25. The asserted claims contain only generic elements, as confirmed by the Patents’
 28 specification. Thus, dismissal at this stage of litigation is entirely appropriate. The Court need not
 consider additional evidence to come to its conclusion.

1 Dated: March 25, 2019

Lucy H. Koh

LUCY H. KOH
United States District Judge

United States District Court
Northern District of California

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