UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

VOIP-PAL.COM, INC.,

Plaintiff,

v.

APPLE INC,

Defendant.

Case No. 18-CV-06216-LHK

ORDER GRANTING CONSOLIDATED MOTION TO DISMISS WITH PREJUDICE

Re: Dkt. No. 89

VOIP-PAL.COM, INC.,

Plaintiff,

v.

AMAZON.COM, INC, and AMAZON TECHNOLOGIES, INC.

Defendants.

Case No. 18-CV-07020-LHK

Re: Dkt. No. 67

Plaintiff Voip-Pal.Com, Inc. filed two related patent infringement suits alleging infringement of U.S. Patent Nos. 9,537,762 (the "'762 Patent"); 9,813,330 (the "'330 Patent"), 9,826,002 (the "'002 Patent"); and 9,948,549 (the "'549 Patent") (collectively, the "Patents-in-Suit"). One suit is against Defendant Apple Inc. ("Apple"), Case No. 18-CV-06216, and the other

is against Defendants Amazon.com, Inc. and Amazon Technologies, Inc. (collectively, the "Amazon Defendants"), Case No. 18-CV-07020. Before the Court is Defendants' consolidated motion to dismiss Plaintiff's amended complaints pursuant to Federal Rule of Civil Procedure 12(b)(6). Defendants 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. 67[1]; Case No. 18-CV-06216, ECF No. 89 (collectively, "Def. Cons. Mot. to Dismiss"). Having considered the submissions of the parties, the relevant law, and the record in this case, the Court GRANTS Defendants' consolidated motion to dismiss with prejudice.

I. BACKGROUND

A. Factual Background

The following facts are drawn from Plaintiff's amended complaints, ECF No. 61 and Case No. 18-CV-06216, ECF No. 81, as the Court must accept the allegations therein as true at the motion to dismiss stage, *Manzarek v. St. Paul Fire & Marine Ins. Co.*, 519 F.3d 1025, 1031 (9th Cir. 2008).

1. The Parties and Technologies

Plaintiff is a Nevada corporation with its principal place of business in Bellevue, Washington. ECF No. 61 ("Amazon FAC"). Plaintiff, through its wholly owned subsidiary Digifonica, owns various patents relating to "Internet Protocol ('IP') based communication." *Id.* ¶¶ 23, 46. An IP-based system uses the Internet to carry voice and other communications instead of a traditional switched circuit network, such as the Public Switched Telephone Network ("PSTN"). *Id.* ¶¶ 17, 21.

Amazon.com, Inc. is a Delaware corporation with its principal place of business in Seattle, Washington. *Id.* ¶ 2. Amazon Technologies, Inc. is a Nevada corporation with its principal place of business in Seattle, Washington. *Id.* ¶ 3. Of relevance to the present case, the Amazon Defendants sell systems and devices that "support communications, including calling and

[1] All references to the docket refer to Case No. 5:18-CV-07020 unless otherwise specified.

messaging," using what Plaintiff refers to as the "Amazon Alexa Calling and Messaging System." *Id.* ¶ 46. These devices include, but are not limited to "the Amazon Echo, Echo Plus, Echo Dot, Echo Spot, Echo Show, Echo Connect, Amazon Tap," and certain Amazon Fire devices, as well as phones and tablets equipped with certain versions of the Alexa app. *Id.* ¶ 47.

Apple is a California corporation with its principal place of business in Cupertino, California. Case No. 18-CV-06216, ECF No. 81 ("Apple FAC") ¶ 2. Apple operates two systems that are relevant to the present case. First, "Apple's iMessage® system and service allows devices to communicate between participants, e.g., as between a first participant or user registered with Apple (such as through an Apple identifier) or that is using an Apple device, and a second user or participant that may or may not be a user registered with Apple or that may or may not be using an Apple device." *Id.* ¶ 48. Second, "Apple's Facetime® system and service allows devices to initiate an audio or video/audio communication between at least two participants which may or may not be associated with an Apple identification or Apple devices/software." *Id.* ¶ 49. In addition, "Apple enables the use of WiFi Calling in conjunction with its iMessage® and Facetime® systems and services, which allows an Apple device to initiate communications between participants using internet protocol (IP) based communication methods and participants using external networks, such as the PSTN." *Id.* ¶ 50.

2. The Patents-in-Suit

Plaintiff alleges that Defendants infringe four patents: the '762 Patent, the '330 Patent, the '002 Patent, and the '549 Patent. The '762 Patent was filed on October 7, 2015 and issued on January 3, 2017. The '330 Patent was filed on December 30, 2016 and issued on November 7, 2017. The '002 Patent was filed on January 12, 2017 and issued on November 21, 2017. The '549 Patent was filed on October 19, 2017 and issued on April 17, 2018. The Patents-in-Suit are all entitled "Producing Routing Messages for Voice over IP Communications." The Patents-in-Suit share the same specification, which is also the specification for the two patents in a related case. The parties cite the specification of the '002 Patent, so the Court does the same.

Specifically, Plaintiff asserts the following twenty claims:

Patent No.	Asserted Claims
'762	6, 16, 21, 26, 30
'330	3, 4, 12, 14
'002	1, 12, 22, 26, 29
'549	2, 6, 9, 12, 17, 24

In general, the Patents-in-Suit relate to a "system architecture and operation," FAC ¶ 35, for routing IP-based communications, including communications between private IP-based networks and external networks such as the Public Switched Telephone Network ("PSTN"). FAC ¶ 26. The PSTN is the traditional landline telephone system, used primarily for voice communications. FAC ¶ 28. An IP-based communication system, by contrast, uses the Internet to carry communications such as phone calls—commonly referred to as "Voice-over-IP"—and other media (video, photos, etc.). IP telephones are "typically personal computer (PC) based telephones connected within an IP network, such as the public Internet or a private network of a large organization." '002 Patent at 1:22-26. A private network is an organization's internal communication network. FAC ¶ 29. Private networks predate the Patents-in-Suit and Voice-over-IP generally. FAC ¶¶ 24, 29. One common form of private network is the "private branch exchange (PBX)," which employs private numbering schemes such as "extensions." FAC ¶¶ 24, 29.

Of course, from time to time, users on a private network may need to place a call to someone outside of the private network, such as through the PSTN or the public Internet. For that reason, "IP telephony switches installed within the IP network enable voice calls to be made within or between IP networks, and between an IP network and a switched circuit network (SCN), such as the public switched telephone network." '002 Patent at 1:30-34. The Patents-in-Suit refer to communications within the private network as "system communications" and communications with someone outside of the private network as "external network communications." The Court does the same.

One conventional method for routing calls to an external network is "to require users to input a special code (e.g., a prefix digit of '9')" in order to initiate a call on the PSTN; otherwise, the call proceeds on the private network. FAC ¶¶ 24, 30. The Patents-in-Suit here disclose a

different method for routing calls through the appropriate network and, ultimately, to the recipient of the call.

Specifically, the Patents-in-Suit disclose a process for routing a call (or transmission of other media) using "identifiers" associated with "callers and callees."[2] '002 Patent at 1:58-64. Such identifiers could be, in layman's terms, a phone number or username. *See id.* at 2:13-17; 15:23-25. According to Plaintiff, the technology "evaluat[es] a called party identifier based on profile settings ('attributes') associated with the calling party." FAC ¶ 32. Based upon that evaluation, the technology "produces a routing message," *id.* ¶ 34, containing an appropriate routing "address"—"e.g., an address in the system associated with the second participant or of a gateway to an external network," *id.* ¶ 40—"for receipt by a call controller . . . , thereby causing the call controller to establish the call," *id.* ¶ 34. Thus, "the asserted claims . . . use a caller's attributes to evaluate a callee identifier against network routing criteria to cause a call to automatically be routed over a system network or another network (e.g., such as the PSTN) interconnected to the system network through a gateway . . . without the user manually specifying which network to use for routing . . . (e.g., by dialing a prefix of '9' to make a PSTN call)." FAC ¶ 33. Notably, there is no need for the user to manually specify which network to use for routing the call. FAC ¶ 33.

[2] The Patents-in-Suit use "caller" and "first participant" to mean the individual initiating a call. The Patents-in-Suit use "callee" and "second participant" to mean the recipient of a call. The Court does the same.

Figure 1 of the specification is helpful to understanding the invention.

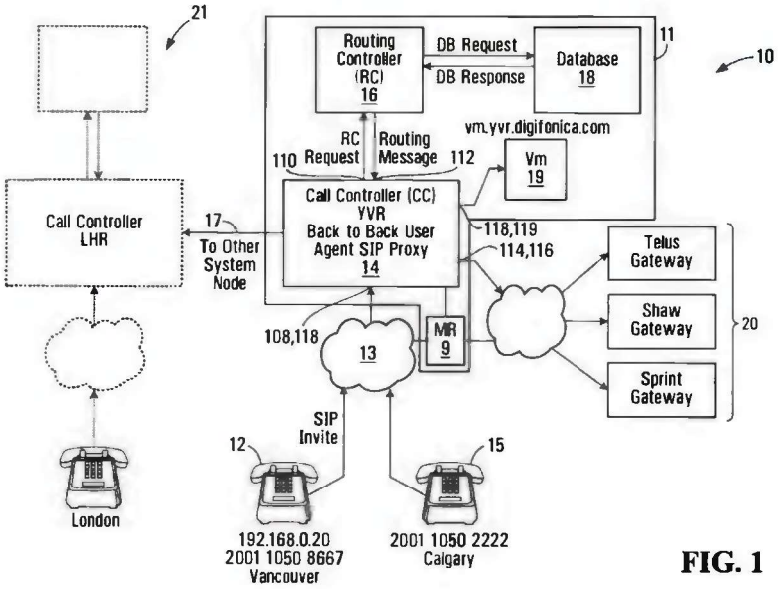

FIG. 1

Looking at Figure 1, "a system for making voice over IP telephone/videophone calls is shown generally at [item] 10." '002 Patent at 13:20-21. Item 11 is a "super node" located, for example, in Vancouver, Canada and providing service to a user (item 12) in Vancouver. Item 21 is a "super node" located, for example, in London, England and providing service to a user in London. *Id.* at 13:21-26. The Vancouver super node includes a call controller (item 14), a routing controller (item 16), a database (item 18), a voicemail server (item 19), and a media relay (item 9). *Id.* at 13:48-50. These components of the super node are implemented by computer, either "on a common computer system or by separate computers." *Id.* at 13:51-53. Users such as a Vancouver user (item 12) and a Calgary user (item 15) communicate with the Vancouver super node using the internet (item 13). *Id.* at 13:55-59. Specifically, each user has "a telephone . . . that is capable of communicating with the Vancouver supernode . . . using Session Initiation Protocol (SIP) messages." *Id.* at 13:63-67.

Suppose the Vancouver user (item 12) is attempting to call the Calgary user (item 15). The caller (item 12) sends an SIP invite message to the Vancouver super node (item 10). *Id.* at 14:51-54. The SIP invite message contains, among other things, a caller ID field and a callee identifier

field. *Id.* at 16:19-20. In response, the call controller (item 14) sends a routing controller request message (referred to in the specification as "RC request message") to the routing controller (item 16). *Id.* at 14:51-56. The RC request message contains, among other things, copies of the caller ID field and the callee identifier field from the SIP invite message. *Id.* at 17:55-58, 16:19-21. The RC request message causes the routing controller (item 16) to query the database (item 18) using the caller ID field in order to locate and retrieve a record associating calling attributes with the caller. *Id.* at 14:56-58; 18:33-37. Example attributes include national dialing digits, international dialing digits, country code, local area code, the maximum number of concurrent calls the user is entitled to cause, and username. *Id.* at 18:40-58; 19:37-49. The routing controller (item 16) then compares the callee identifier to the caller's attributes. *Id.* at 20:13 – 21:29. Based upon the comparison, the routing controller (item 16) produces a routing message, which is then sent back to the call controller (item 14). *Id.* at 14:56-58. The call controller (item 14) communicates with the media relay (item 9) to create a communications link with the callee (item 15) through the media relay (item 9) "to the same node, a different node or to a communications supplier gateway" (item 20). *Id.* at 14:61-64.

B. Procedural History

The instant motion pertains to two patent infringement suits that have been consolidated for pre-trial purposes. ECF No. 40. On May 24, 2018, Plaintiff filed its complaint against Apple in Case No. 18-CV-06216 (the "Apple Action") in the U.S. District Court for the District of Nevada. Case No. 18-CV-06216, ECF No. 1. The Apple Action was subsequently transferred and reassigned to this Court. Case No. 18-CV-06216, ECF Nos. 24, 43.

On June 15, 2018, Plaintiff filed a complaint against Amazon.com, Inc., Amazon Technologies, Inc., and Amazon Lab 126 in Case No. 18-CV-07020 (the "Amazon Action") in the U.S. District Court for the District of Nevada. ECF No. 1. Plaintiff then dismissed its allegations against Amazon Lab 125. ECF No. 14, 17. The Amazon Action was subsequently transferred and reassigned to this Court. ECF Nos. 20, 29.

Defendants filed a consolidated motion to dismiss the Apple Action and the Amazon

Action on February 15, 2019. ECF No. 57. On March 15, 2019, however, Plaintiff moved for leave to amend its complaints in both actions. ECF No. 48; Case No. 18-CV-06216, ECF No. 67. The Court granted Plaintiff's motion, ECF No. 59, and denied Defendants' motions to dismiss as moot, ECF No. 64.

On May 17, 2019, Plaintiff filed the operative amended complaints—the Amazon FAC and the Apple FAC. ECF No. 61; Case No. 18-CV-06216, ECF No. 81. On June 5, 2019, Defendants filed the identical consolidated motion to dismiss the amended complaints based upon 35 U.S.C. § 101 in both cases. ECF No. 67; Case No. 18-CV-06216, ECF No. 89. Plaintiff filed a consolidated opposition, ECF No. 69 ("Pl. Opp."), and Defendants replied, ECF No. 70 ("Def. Reply"). The motion is now before the Court.

In addition, Apple has filed *inter partes* review petitions with the Patent Trial and Appeal Board ("PTAB") for all four Patents-in-Suit. ECF No. 77 at 4. Those petitions are still pending.

C. The Related Consolidated Case

The instant actions are related to four other patent infringement suits brought by Plaintiff Voip-Pal.Com, Inc. against Defendants Apple (18-CV-06217), AT&T Corp. (18-CV-06177), Twitter Inc. (18-CV-04523), and Cellco Partnership d/b/a/ Verizon Wireless Services, LLC ("Verizon") (18-CV-06054). This Court consolidated the four suits for pretrial purposes, Case No. 18-CV-06217, ECF No. 96 at 9, so the Court refers to them collectively as "the Related Consolidated Case." In those actions, Plaintiff alleged that Apple, AT&T Corp., and Verizon (but not Twitter Inc.) infringe various claims of U.S. Patent No. 8,542,815 (the "'815 Patent") and that all four defendants infringe various claims of U.S. Patent No. 9,179,005 (the "'005 Patent"). *Id.* at 2. The '815 Patent and the '005 Patent have the same specification and title as the Patents-in-Suit.

Claiming that the '815 and '005 patents are invalid for lack of patentable subject matter under § 101, the defendants filed an omnibus motion to dismiss all four suits pursuant to Federal Rule of Civil Procedure 12(b)(6). *Id.* at 10-11. This Court found that the asserted claims of the '815 and '005 patents are directed to unpatentable subject matter and granted the motions to dismiss. *Id.* at 44. Accordingly, the Court entered judgment in favor of Defendants Apple,

Twitter Inc., AT&T Corp., and Verizon on March 25, 2019. Case No. 18-CV-06217, ECF No. 98. Plaintiff then appealed to the Federal Circuit, and that appeal is still pending. Case No. 18-CV-06217, ECF No. 100.

II. LEGAL STANDARDS

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

Federal Rule of Civil Procedure 8(a)(2) requires a complaint to include "a short and plain statement of the claim showing that the pleader is entitled to relief." A complaint that fails to meet this standard may be dismissed pursuant to Federal Rule of Civil Procedure 12(b)(6). A complaint must contain "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." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). "Dismissal under Rule 12(b)(6) is appropriate . . . where the complaint lacks a cognizable legal theory or sufficient facts to support a cognizable legal theory." *Mendiondo v. Centinela Hosp. Med. Ctr.*, 521 F.3d 1097, 1104 (9th Cir. 2008).

In ruling on a Rule 12(b)(6) motion, a court must "accept factual allegations in the complaint as true and construe the pleadings in the light most favorable to the nonmoving party." *Manzarek*, 519 F.3d at 1031. A court need not, however, "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) (per curiam) (internal quotation marks omitted). 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).

B. Challenging Patent Eligibility under 35 U.S.C. § 101 on Motion to Dismiss

Defendant's motion to dismiss argues that the Patents-in-Suit fail to claim patent-eligible subject matter under 35 U.S.C. § 101, as elucidated by the U.S. Supreme Court's decision in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208 (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). Although the Federal Circuit has said that the § 101 analysis "may contain disputes over underlying facts," it has also made clear that patent eligibility can often be resolved on a motion to dismiss. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018) ("As our cases demonstrate, not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry."); *see also Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017) ("[W]e have repeatedly affirmed § 101 rejections at the motion to dismiss stage, before claim construction or significant discovery has commenced."); *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). Likewise, "claim construction is not an inviolable prerequisite to a validity determination under § 101," though it may be desirable or even necessary in some cases. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1273 (Fed. Cir. 2012).

In other words, where the court has a "full understanding of the basic character of the claimed subject matter," the question of patent eligibility may properly be resolved on the pleadings. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014).

C. Patent-eligible Subject Matter under 35 U.S.C. § 101

Section 101 of Title 35 of the United States Code "defines the subject matter that may be patented under the Patent Act." *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). Under § 101, the scope of patentable subject matter encompasses "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." *Id.* (quoting 35 U.S.C. § 101). These categories are broad, but they are not limitless. Section 101 "contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 573 U.S. at 216 (citation omitted). These three categories of subject matter are excepted from patent-eligibility because "they are the basic tools of scientific and technological

work," which are "free to all men and reserved exclusively to none." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) (citations omitted). The U.S. Supreme Court has explained that allowing patent claims for such purported inventions would "tend to impede innovation more than it would tend to promote it," thereby thwarting the primary object of the patent laws. *Id.* At the same time, the U.S. Supreme Court has cautioned that "[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Alice*, 573 U.S. at 217 (alterations and internal quotation marks omitted). Accordingly, courts must "tread carefully in construing this exclusionary 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*, 573 U.S. at 217. This analysis—commonly known as the "*Alice*" framework—comprises two steps:

> 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 Supreme Court in *Alice*"). The Court refers to these steps as *Alice* Step One and *Alice* Step Two, respectively.

1. *Alice* Step One: Identification of Claims Directed to a Patent-Ineligible Concept

At *Alice* Step One, a court must "determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Alice*, 573 U.S. at 218. "The 'abstract ideas'

category embodies the longstanding rule that an idea of itself is not patentable." *Id.* (internal quotation marks and alterations omitted). However, neither the U.S. Supreme Court nor the Federal Circuit has set forth a "definitive rule" separating "abstract ideas" from concepts that are sufficiently concrete so as to require no further inquiry under the first step of the *Alice* framework. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016); *see also Alice*, 573 U.S. at 221 (in which the Court did not "labor to delimit the precise contours of the 'abstract ideas' category in this case"); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1345 (Fed. Cir. 2015) ("[P]recision has been elusive in defining an all-purpose boundary between the abstract and the concrete[.]"). 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*, 822 F.3d at 1334.

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 economic practices. *See Alice*, 573 U.S. at 219 (claims "drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk" were directed to a patent-ineligible abstract idea); *Bilski*, 561 U.S. at 611-12 (claims drawn to "the basic concept of hedging, or protecting against risk" were directed to a patent-ineligible abstract idea because "[h]edging is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class" (citation omitted)). *Alice* is of particular relevance here, as it involved a computerized invention. 573 U.S. at 213. In general, however, determining whether a computer-implemented claim is abstract has proven more "vexing." *CLS Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1276 (Fed. Cir. 2013), *aff'd*, 573 U.S. 208 (2014) ("§ 101 appears deceptively simple on its face, yet its proper application to computer-implemented inventions . . . has long vexed this and other courts."). Nevertheless, courts considering computer-implemented inventions have distilled "some important principles" from relevant U.S. Supreme Court and Federal Circuit precedents in determining whether an invention is directed to an abstract

idea. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

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

In another important strand of cases, courts consider whether the claims "purport to improve the functioning of the computer itself," *Alice*, 573 U.S. at 225—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. The Federal Circuit has followed this approach to find claims patent-eligible in several cases. *Compare 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)); *and 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"); *with Enfish*, 822 F.3d at 1335–36 (claims were not abstract because they focused

"on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database)").

In the same vein, 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).

By contrast, courts have frequently invalidated claims that have a close analogy in the brick-and-mortar world, such that the claims cover "'fundamental practices long prevalent in our system' and 'methods of organizing human activity.'" *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 219) (alterations omitted) (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 directed to a mental process or a process that could be performed 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").

At all events, however, the Federal Circuit has emphasized that "the first step of the [*Alice*] inquiry is a meaningful one." *Enfish*, 822 F.3d at 1335. In particular, the court's task is not to determine whether the claims merely "involve" an abstract idea at some level, *see id.*, but rather to examine the claims "in their entirety to ascertain whether their character as a whole is directed to excluded subject matter," *Internet Patents*, 790 F.3d at 1346.

2. *Alice* Step Two: Evaluation of Abstract Claims for an Inventive Concept

A claim drawn to an abstract idea is not necessarily invalid if the claim's limitations—considered individually or as an ordered combination—serve to "transform the claims into a patent-eligible application." *Content Extraction*, 776 F.3d at 1348. Thus, the second step of the *Alice* analysis (the search for an "inventive concept") asks whether the claim contains an element or combination of elements that "ensure[s] that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." 573 U.S. at 217 (citation omitted).

The U.S. Supreme Court has made clear that transforming an abstract idea to a patent-eligible application of the idea requires more than simply reciting the idea followed by "apply it." *Id.* at 221 (quoting *Mayo*, 566 U.S. at 72). In that regard, the Federal Circuit has repeatedly held that "[f]or the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction*, 776 F.3d at 1347-48 (alteration in original) (quoting *Alice*, 573 U.S. at 225); *see also Mortg. Grader*, 811 F.3d at 1324-25 (holding that "generic computer components such as an 'interface,' 'network,' and 'database' . . . do not satisfy the inventive concept requirement"); *Bancorp Servs.*, 687 F.3d at

1278 ("To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.").

Likewise, "[i]t is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea" where those components simply perform their "well-understood, routine, conventional" functions. *In re TLI Commc'ns LLC*, 823 F.3d at 613 (citation omitted) (ruling that a "telephone unit," a "server," an "image analysis unit," and a "control unit" limitations did not supply an inventive concept because "the recited physical components behave exactly as expected according to their ordinary use"). In *Alice*, for instance, the U.S. Supreme Court held "the use of a computer to obtain data, adjust account balances, and issue automated instructions" are "generic computer functions." 573 U.S. at 225. "The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact" that "must be proven by clear and convincing evidence." *Berkheimer*, 881 F.3d at 1368. Moreover, "[t]he mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional." *Id.* at 1369.

In addition, the U.S. Supreme Court explained in *Bilski* that "limiting an abstract idea to one field of use or adding token postsolution components [does] not make the concept patentable." 561 U.S. at 612 (citing *Parker v. Flook*, 437 U.S. 584 (1978)); *see also Alice*, 573 U.S. at 222 (same). The Federal Circuit has similarly stated that attempts "to limit the use of the abstract idea to a particular technological environment" are insufficient to render an abstract idea patent-eligible. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (internal quotation marks and citation omitted); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.").

By contrast, a "non-conventional and non-generic arrangement of known, conventional pieces" can amount to an inventive concept. *BASCOM Glob. Internet Servs., Inc. v. AT&T*

Mobility LLC, 827 F.3d 1341, 1350 (Fed. Cir. 2016). For example, in *BASCOM*, the Federal Circuit addressed a claim for Internet content filtering performed at "a specific location, remote from the end-users, with customizable filtering features specific to each end user." *Id.* Because this "specific location" was different from the location where Internet content filtering was traditionally performed, the Federal Circuit concluded this was a "non-conventional and non-generic arrangement of known, conventional pieces" that provided an inventive concept. *Id.* As another example, in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, the Federal Circuit held that claims relating to solutions for managing accounting and billing data over large, disparate 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.*

3. Preemption Concerns

In addition to these specific guidelines, 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 [its] § 101 jurisprudence" is that of preemption. *Alice*, 573 U.S. at 223. For that reason, 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. The converse, however, 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 (internal quotation marks omitted). That is, a claim is not eligible simply because its application of the abstract idea is narrow and other uses remain. *See, e.g.*, *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) ("Sequenom's attempt to limit the breadth of the claims by showing alternative uses of cffDNA outside of the scope of the claims does not change the conclusion that the claims are directed to patent ineligible subject matter.").

III. DISCUSSION

In their consolidated motion to dismiss, Defendants contend that the asserted claims of the Patents-in-Suit are invalid because the claims fall within the "abstract ideas" exception to § 101. The Court agrees. The Court begins its analysis by identifying representative claims. The Court then applies the *Alice* framework described above to each of representative claims, beginning with Step One and then moving to Step Two.

A. Scope of Analysis and Representative Claims

The Federal Circuit has held that a district court need not expressly address each asserted claim where the court concludes that particular claims are representative because all the claims are "substantially similar and linked to the same abstract idea." *Content Extraction*, 776 F.3d at 1348 (quotation marks omitted); *see also Mortg. Grader*, 811 F.3d at 1324 n.6 (court did not err by discussing only one claim where claims did not "differ in any manner that is material to the patent-eligibility inquiry"); *Alice*, 573 U.S. 224-25 (finding 208 claims to be patent-ineligible based on analysis of one representative claim). For instance, claims that "contain only minor differences in terminology but require performance of the same basic process, . . . should rise or fall together." *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1368 n.7 (Fed. Cir. 2017) (internal quotation marks omitted). Courts may likewise "treat a claim as representative . . . if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim." *Berkheimer*, 881 F.3d at 1365.

Here, Defendants contend that Claim 1 of the '002 Patent is representative of all asserted claims across the four Patents-in-Suit. Plaintiff does not believe Claim 1 of the '002 Patent is representative, and instead insists that the Court analyze each individual claim at issue in the instant case.

The Court takes a different approach from the ones urged by the parties. The Court finds that the asserted claims can be grouped into four categories and designates a different representative claim for each category. First, claim 1 of the '002 Patent is representative of the claims that disclose a five-step method for classifying and then routing a communication between

participants. Second, claim 9 of the '549 Patent is representative of the claims disclosing a particular method for classifying the communication, *viz.*, searching a "database" for the "new second participant identifier." '549 Patent at 38:48-54. Third, claim 26 of the '002 Patent is representative of the claims in which the communication is "blocked" instead of being "established." '002 Patent at 42:32-38. Fourth, claim 21 of the '762 Patent is representative of the claims in which an "error message" is produced. '762 Patent at 40:10-14.

The following table summarizes the asserted claims and the corresponding representative claims.

Representative Claim	Asserted Claims
Claim 1 of the '002 Patent	Claims 12, 22, 29 of the '002 Patent Claims 2, 6, 17 of the '549 Patent
Claim 9 of the '549 Patent	Claim 24 of the '549 Patent Claims 3, 4, 12 of the '330 Patent Claims 16, 30 of the '762 Patent
Claim 26 of the '002 Patent	Claim 14 of the '330 Patent Claim 12 of the '549 Patent
Claim 21 of the '762 Patent	Claims 6, 26 of the '762 Patent

1. Representative Claim 1: Claim 1 of the '002 Patent

Claim 1 of the '002 Patent ("Representative Claim 1") recites:

> 1. A method of routing a communication in a communication network system between an Internet-connected first participant device associated with a first participant and a second participant device associated with a second participant, the method comprising:
>
> in response to initiation of the communication by the first participant device, receiving, by a controller comprising at least one processor, over an Internet protocol (IP) network a first participant identifier and a second participant identifier, the second participant identifier being associated with the second participant device;
>
> causing the at least one processor to access a database comprising user profiles, using the first participant identifier, each user profile associating a respective plurality of attributes with a respective user, to locate a plurality of first participant attributes;
>
> processing the second participant identifier, using the at least one processor, based on at least one of the plurality of first participant attributes obtained from a user profile for the first participant, to produce a new second participant identifier;

> classifying the communication, based on the new second participant identifier, as a system communication or an external network communication, using the at least one processor;
>
> when the communication is classified as a system communication, producing a system routing message identifying an Internet address associated with the second participant device, using the at least one processor, wherein the system routing message causes the communication to be established to the second participant device; and
>
> when the communication is classified as an external network communication, producing an external network routing message identifying an Internet address associated with a gateway to an external network, using the at least one processor, wherein the external network routing message causes the communication to the second participant device to be established using the gateway to the external network.

Id. at 37:30 – 38:2.

In plainer terms, Representative Claim 1 discloses a method of routing a communication between a first participant and a second participant by (1) receiving identifiers associated with the first and second participants when a communication is initiated, (2) searching a database using the first participant identifier and locating a collection of attributes associated with the first participant, (3) processing the second participant identifier using at least one first participant attribute to produce a new second participant identifier, (4) classifying the communication as a "system communication" or an "external network communication" "based on" the new second participant identifier, and (5) producing a "routing message" that causes the communication to be established either within the system or through a gateway to an external network.

The Court finds that Representative Claim 1 of the '002 Patent is representative of claims 12, 22, and 29 of the '002 Patent and claims 2, 6, and 17 of the '549 Patent. Although these claims span two different patents, all of them describe inventions that are "substantially similar to," *Content Extraction*, 776 F.3d at 1348, or "require performance of," *Smart Sys. Innovations*, 873 F.3d at 1368 n.7, the five-step method in Representative Claim 1. *See, e.g.*, *Elec. Power Grp.*, 830 F.3d at 1352 (using a single claim as representative of sixteen claims across three patents).

Claims 12, 22, and 29 of the '002 Patent

Turning to the '002 Patent, Claim 12 is the only other independent asserted claim in the

'002 Patent. Claim 12 discloses "an apparatus for routing communications in a communication system" that comprises "a controller comprising at least one processor" that carries out the steps disclosed in Representative Claim 1. *Id.* at 40:18-59. The Federal Circuit has repeatedly emphasized that "the format of the various method, system, and media claims . . . 'does not change the patent eligibility analysis under § 101.'" *Bancorp Servs.*, 687 F.3d at 1276-77. "[S]ystem claims that closely track method claims and are grounded by the same meaningful limitations will generally rise and fall together." *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013). Because claim 12 "essentially implement[s] the process of" Representative Claim 1 using generic electronic components, it offers no "meaningful limitations beyond the method claim[]." *Id.* at 1342.

The Court next addresses claim 29 because it depends from claim 12. Claim 29 is directed to step (5) of the process described in Representative Claim 1. Specifically, claim 29 discloses that the "Internet address associated with a gateway to an external network," '002 Patent at 37:64-65, is "select[ed] from among a plurality of Internet addresses associated with a respective plurality of gateways to the external network," *id.* at 42:49-54. This addition does not describe the claimed apparatus but rather the architecture of the underlying communication system upon which the apparatus operates. The description claim 29 provides, moreover, is scant. Claim 29 discloses only that the communications system has more than one gateway to the external network. Of particular relevance, claim 29 does not specify *how* the particular gateway is selected from the plurality of gateways. Nor does claim 29 provide any instruction as to how the communication system is designed to support multiple gateways. Indeed, as discussed in greater detail below, the patent never defines "gateway" to be anything other than a preexisting, generic portal between the private network and the external network. *See* Part III.C.1.a. Thus, the additional limitation in claim 29 is not "distinctive," *Berkheimer*, 881 F.3d at 1365, and does not make claim 29 materially different from claim 12 or, by extension, Representative Claim 1.

The same is true of claim 22, which depends from Representative Claim 1. Claim 22 discloses that "producing the system routing message comprises causing the at least one processor

to determine the Internet address associated with the second participant device based on the user profile for the second participant." '002 Patent at 41:55-60. This limitation purports to flesh out step (5) of the process described in Representative Claim 1, which requires "producing a system routing message identifying an Internet address associated with the second participant device, using the at least one processor." Yet, the contribution made by claim 22 is negligible. Representative Claim 1 already disclosed that the routing message "identif[ies]" the "Internet address associated with the second participant device" and that the "at least one processor" accomplishes this task. Claim 22 adds only that the Internet address is determined "based on the user profile for the second participant." The claim does not disclose how the "user profile" is used, it says only that the determination is "based on" the "user profile." This conclusory reference to a "user profile" hardly rises to the level of a "meaningful limitation," *Accenture Glob. Servs.*, 728 F.3d at 1341, that transmutes claim 22 into a different idea for purposes of patent-eligibility. *See Mortg. Grader*, 811 F.3d at 1324 n.6.

Claims 2, 17, and 6 of the '549 Patent

The Court next addresses claims 2, 17, and 6 of the '549 Patent. Claim 2 depends from independent claim 1, which is not asserted. Claim 1 of the '549 Patent is a method claim disclosing the same steps as Representative Claim 1, with "minor differences in terminology." *Smart Sys. Innovations*, 873 F.3d at 1368 n.7. Plaintiff does not contend otherwise. The Court finds that claim 1 of the '549 Patent embodies "the same basic process," *id.*, as Representative Claim 1 and is therefore substantially similar to Representative Claim 1. Claim 2 of the '549 Patent then merely clarifies that, at step (5), a system communication is established "over an Internet Protocol (IP) network." '549 Patent at 37:64-67. This limitation is inherent in claim 1, which already discloses that the system communication is established "through" "an Internet Protocol (IP) address," *id.* at 52-53. Moreover, Plaintiff again does not make a "meaningful argument," *Berkheimer*, 881 F.3d at 1365, that claim 2 is distinct from claim 1 of the '549 Patent or Representative Claim 1. Accordingly, the Court determines that claim 2 of the '549 Patent is adequately represented by Representative Claim 1.

Plaintiff likewise does not point to any distinctive limitations in claim 17 of the '549 Patent. Claim 17 is an independent system claim for an apparatus "comprising at least one processor" configured to implement the method disclosed by claim 1 of the '549 Patent. '549 Patent at 40:51 – 41:22. The Court finds that the addition of a generic "processor" does not rank as a "meaningful limitation," *Accenture Glob. Servs.*, 728 F.3d at 1341, beyond claim 1 of the '549 Patent, and that claim 17 is therefore also represented by Representative Claim 1.

Claim 6 is another method claim that depends from claim 1 of the '549 Patent. Plaintiff argues Claim 6 is distinctive because it recites a "specific classification method[]." Pl. Opp. at 5. The Court disagrees. Claim 6 and Representative Claim 1 disclose "performance of the same basic process," *Smart Sys. Innovations*, 873 F.3d at 1368 n.7, of classifying a communication as either a "system communication" or an "external network communication." Claim 6 discloses that the communication is classified based upon "whether the second participant device is operably configured to communicate via the communication system." '549 Patent at 38:25-29. In so doing, Claim 6 merely explicates what was already inherent in the terms "external network communication" or "system communication"—namely, that (i) a system communication is with a second participant device that "is operably configured to communicate via the communication system," and (ii) an external network communication is with a second participant device that is "not operably configured to communicate via the communication system." *Id.* at 38:27-33. Claim 6 thus appends nothing material to Representative Claim 1.

Accordingly, Representative Claim 1 of the '002 Patent is representative of claims 12, 22, and 29 of the '002 Patent and claims 2, 6, and 17 of the '549 Patent.

2. Representative Claim 9: Claim 9 of the '549 Patent

Next is claim 9 of the '549 Patent ("Representative Claim 9"), which depends from claim 8 of the '549 Patent.[3] '549 Patent at 38:55. Claims 8 and 9 of the '549 Patent recite:

> 8. The method of claim 1, wherein classifying the communication comprises causing the at least one processor to:

[3] Claim 8 of the '549 is not asserted by Plaintiff.

> determine whether a profile associated with the new second participant identifier exists in the database, and
>
> when a profile associated with the new second participant identifier does not exist in the database, classify the communication as an external network communication.
>
> 9. The method of claim 8, wherein,
>
> when a profile associated with the new second participant identifier exists in the database, causing the at least one processor to classify the communication as a system communication.

Id. at 38:48-59.

Representative Claim 9 discloses a method of routing a communication between a first participant and a second participant by (1) receiving an identifier associated with the second participant when a communication is initiated, (2) searching a memory and locating at least one attribute associated with the first participant, (3) processing the second participant identifier using at least one first participant attribute to produce a new second participant identifier, (4) classifying the communication as a "system communication" or an "external network communication" based upon *whether a profile associated with the new second participant identifier exists in a database*, and (5) producing a "routing message" that causes the communication to be established either within the system or through a gateway to an external network.

Of relevance here, Representative Claim 9 depends from claim 8 of the '549 Patent, which itself depends from claim 1 of the '549 Patent. Representative Claim 9 appends to claim 1 of the '549 Patent an additional limitation at step (4). Whereas claim 1 of the '549 Patent broadly recites "classifying" the communication, Representative Claim 9 specifies a particular method of "classifying," *viz.*, "classifying based on whether a profile associated with the processed second participant identifier exists in a database." Pl. Opp. at 5. To be precise, the communication is classified as a "system communication" if the profile exists in the database and as an "external network communication" if not. The Court finds, and Plaintiff does not dispute, that this additional limitation is the only material difference between Representative Claim 9 and claim 1 of the '549 Patent. Moreover, the Court already found and Plaintiff does not dispute that claim 1 of the '549 Patent is substantially similar to Representative Claim 1 of the '002 Patent. *See supra*

Part III.A.1.

As set out below, Representative Claim 9 of the '549 Patent is representative of claim 24 of the '549 Patent; claims 3, 4, 12 of the '330 Patent; and claims 16, 30 of the '762 Patent.

Claim 24 of the '549 Patent

Claim 24 of the '549 Patent is an apparatus claim comprising "at least one processor" configured to carry out the steps recited in Representative Claim 9. *See id.* at 42:1-8. Plaintiff does not dispute this characterization. Hence, as above, claim 24 merely implements the method in Representative Claim 9 and offers no distinctive limitation that is material to the § 101 analysis.

Claims 3, 4, 12 of the '330 Patent

The Court next turns to claims 3, 4, and 12 of the '330 Patent. Claims 3 and 4 depend from independent claim 1 of the '330 Patent, which is not asserted. Like Representative Claim 9, claim 1 of the '330 Patent recites a method for routing a communication between an Internet-connected first participant device and a second participant device. Plaintiff believes this claim differs from Representative Claim 9 in two respects, neither of which holds water. First, Plaintiff contends claim 1 "recite[s] different aspects of system architecture for establishing a communication" at step (5) of the process laid out in Representative Claim 9. Pl. Opp. at 5. That is, Representative Claim 9 states that the routing message for a system communication identifies "an Internet Protocol (IP) address of a *network element* through which the communication is to be routed," '549 Patent at 37:49-54, whereas claim 1 of the '330 Patent states that the same routing message identifies "an Internet address of a *communication system node* associated with the second participant device," '330 Patent at 37:57-60. *See* Pl. Opp. at 5. Yet, the generic term "communication system node" provides no additional detail over the equally generic term "network element." There is nothing in the patent or Plaintiff's brief to suggest that claim 1 does anything more than substitute one generic computing term for another.

Second, Plaintiff points out that claim 1 calls for "*comparing* at least a portion of the second participant identifier . . . with at least one of the plurality of first participant attributes," '330 Patent at 37:46-48, rather than "*processing* the second participant identifier, based on the at

least one first participant attribute," '549 Patent at 37:44-46. *See* Pl. Opp. at 5 n.7. Again, the Court sees no discernible difference between the terms "comparing" and "processing," as neither claim discloses how the comparison or processing is accomplished. Accordingly, the Court concludes neither of these "minor differences in terminology," *Smart Sys. Innovations*, 873 F.3d at 1368 n.7, differentiates claim 1 or dependent claims 3 and 4 of the '330 Patent from Representative Claim 9.

Nor do the additional limitations contained in claims 3 and 4 of the '330 Patent render these claims materially different. Claim 3 appends to step (5) of claim 1 that the "communication system node" is "one of a plurality of communication system nodes each operably configured to provide communications services to a plurality of communication systems subscribers." '330 Patent at 38:13-22; *see* Pl. Opp. at 5. But as already explained with regard to claim 29 of the '002 Patent, this limitation only addresses the structure of the communication system and not the claimed process, for it does not disclose *how* the relevant node is selected from the plurality of nodes. Consequently, the limitation does not transform the "basic process," *Smart Sys. Innovations*, 873 F.3d at 1368 n.7, to which claim 3 is directed.

As for claim 4, Plaintiff does not allege that the claim contains any distinctive limitations. *See Berkheimer*, 881 F.3d at 1365. Representative Claim 9 is therefore representative of claims 3 and 4 of the '330 Patent in all relevant respects.

Claim 12 of the '330 Patent is an independent apparatus claim. However, like several other apparatus claims already analyzed, claim 12 simply implements the method in claim 1 of the '330 Patent using a generic "controller comprising at least one processor in communication with at least one memory storing processor readable instructions." *Id.* at 39:9-19. Plaintiff does not argue otherwise. Claim 12 is thus directed to the "same basic process" as claim 1 of the '330 Patent and Representative Claim 9.

Claims 16, 30 of the '762 Patent

As for claims 16 and 30 of the '762 Patent, Plaintiff does not present any argument—let alone a "meaningful argument"—for "the distinctive significance of any claim limitations not

found in the representative claim," *Berkheimer*, 881 F.3d at 1365. Claim 16 of the '762 Patent discloses a "non-transitory computer readable medium encoded with program code for directing the at least one processor to execute the method of claim 14." '762 Patent at 39:25-27. The patent does not invent the "non-transitory computer readable medium," which is simply a generic vessel for generic "program code" that "executes" "the method of claim 14." The method of claim 14, in turn, is the same as the method of Representative Claim 9, with minor differences in terminology. Claim 16 is thus directed to the method of Representative Claim 9. Similarly, Claim 30 of the '762 Patent is a systems claim that implements the method of claim 7, which recites the same five steps in Representative Claim 9. Plaintiff, meanwhile, does not specifically dispute any of the foregoing. Accordingly, the Court concludes that claims 16 and 30 of the '762 Patent are directed to the "same basic process" as the one recited by Representative Claim 9.

3. Representative Claim 26: Claim 26 of the '002 Patent

Claim 26 of the '002 Patent ("Representative Claim 26") is representative of the asserted claims that disclose "blocking" of the communication. Representative Claim 26 discloses:

> 26. The method of claim 1, further comprising:
>
> accessing the database to locate communication blocking information associated with the second participant, using the at least one processor; and
>
> blocking the communication when the communication blocking information identifies the first participant identifier.

Id. at 42:32-38. Thus, the communication is not established if there is "blocking information" associated with the callee that identifies the caller as someone to be blocked. Representative Claim 26 depends from Representative Claim 1 and adds only the above blocking limitation.

There are two other asserted claims that disclose blocking: claim 14 of the '330 Patent and claim 12 of the '549 Patent. Plaintiff has articulated no specific objection to treating Representative Claim 26 as representative of these claims. For that reason, and as confirmed below, the Court treats Representative Claim 26 as representative of claim 14 of the '330 Patent and claim 12 of the '549 Patent.

Claim 14 of the '330 Patent

Claim 14 of the '330 Patent is an apparatus claim that depends from claim 12 of the '330 Patent, which the Court already found to be represented by Representative Claim 9. The Court finds that the added limitations in claim 14—namely, that the apparatus is also configured to "access the at least one database to locate communication blocking information associated with the second participant" and "block the communication when the communication blocking information identifies the first participant identifier," '330 Patent at 39:63 – 40:3, simply implement the blocking steps recited by Representative Claim 26. Again, a systems claim that "essentially implement[s] the process of" a method claim is appropriately analyzed together with the method claim. *Accenture Glob. Servs.*, 728 F.3d at 1341.

Claim 12 of the '549 Patent

Next, claim 12 of the '549 Patent is a method claim that depends from claim 1 of the '549 Patent, which the Court already found to be represented by Representative Claim 1 of the '002. Claim 12 recites two limitations not found in claim 1 of the '549 Patent or Representative Claim 1: (i) routing a communication from a first participant to a third participant device when there is no blocking information associated with that device, and (ii) blocking of the communication with the third participant device. '549 Patent at 39:22-38. Neither of these limitations is distinctive, however. The routing of communication to a potential third participant is accomplished using the same process for routing a communication to the second participant disclosed in Representative Claim 1 and Representative Claim 26. So too with the blocking of the communication with the third participant device: Claim 12 simply applies the process Representative Claim 26 describes for blocking a communication to the second participant device, namely, "search[ing] a database for communication blocking information associated with the third participant device, and if the communication blocking information is found, preventing the further communication from being established." *Id.* at 39:22-29. In other words, claim 12 essentially reiterates the process disclosed by Representative Claim 26 with regard to a third participant. Claim 12 therefore requires performance of the "same basic process," *Smart Sys. Innovations*, 873 F.3d at 1368 n.7, as

Representative Claim 26.

4. Representative Claim 21: Claim 21 of the '762 Patent

Last, Claim 21 of the '762 Patent ("Representative Claim 21") recites:

> 21. A method of routing communications in a system in which a first participant identifier is associated with a first participant registered with the system and wherein a second participant identifier is associated with a second participant, the first participant being associated with a first participant device operable to establish a communication using the system to a second participant device associated with the second participant, the system comprising at least one processor operably configured to execute program code stored on at least one memory, the method comprising:
>
> in response to the first participant device initiating the communication to the second participant device, receiving the first participant identifier and the second participant identifier from the first participant device;
>
> using the first participant identifier to locate, via the at least one processor, a first participant profile from among a plurality of participant profiles that are stored in a database, the first participant profile comprising one or more attributes associated with the first participant;
>
> when at least one of the one or more attributes and at least a portion of the second participant identifier meet a first network classification criterion, producing, via the at least one processor, a first network routing message, the first network routing message identifying an address in the system, the address being associated with the second participant device;
>
> when at least one of the one or more attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing, via the at least one processor, a second network routing message, the second network routing message identifying an address associated with a gateway to a network external to the system, wherein the second network classification criterion is met if the second participant is not registered with the system; and
>
> when at least one of the one or more attributes meets a third network classification criterion, producing, via the at least one processor, an error message and causing prevention of the communication from being established.

'762 Patent at 39:41 – 40:14. Put in plain language, Representative Claim 21 recites a method of "routing a communication" between a first participant and a second participant by (1) receiving identifiers associated with the first and second participants when a communication is initiated, (2)

searching a database using the first participant identifier and locating a collection of attributes associated with the first participant, (3) applying "network classification criteria" to the second participant identifier and one or more of the first participant attributes and, (4)(a) if a "first network classification criterion" is met, producing a routing message that causes the communication to be established within the system, (4)(b) if a "second network classification criterion" is met, producing a routing message that causes the communication to be established through a gateway to an external network, or (4)(c) if a "third network classification criterion" is met, producing an "error message" and preventing the communication from being established. *See* '762 Patent at 39:41 – 40:14. The principal difference separating Representative Claim 21 from Representative Claim 1 is that, under certain circumstances, an error message is produced instead of a routing message, and the communication is not established.

Representative Claim 21 is representative of the two other claims that recite an "error message," claims 6 and 26 of the '762 Patent. The Court again emphasizes that Plaintiff has not specifically identified any limitations in claims 6 and 26 that preclude Representative Claim 21 from being representative. On top of this concession, the Court below confirms that claims 6 and 26 are substantially similar to Representative Claim 21.

First, claim 6 of the '762 Patent is a method claim comprising the same three steps, with only trivial additions. *See* '762 Patent at 38:10-16, 38:31-33. For instance, claim 6 recites that the "the error message is sent to a call controller." *Id.* at 38:31-33. The specification indicates that the purpose of this step is "to notify the caller" of the error. *Id.* at 20:26-29. However, neither the claim nor the specification explains how sending the error message to the call controller ultimately leads to notifying the caller. In any event, such notification is no more than "insignificant postsolution activity," which has no bearing on patent-eligibility under § 101. *Bilski*, 561 U.S. at 610 (2010); *see Flook*, 437 U.S. at 590 (notifying the operator of an abnormality is insignificant postsolution activity). The Federal Circuit has repeatedly affirmed that merely "displaying the results" of an analytical process does not add anything significant to the process itself. *See Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1386 (Fed. Cir. 2019) (displaying P&L

values was not "significantly more" than the concept of obtaining those values). Plaintiff does not argue otherwise. Moreover, the claim itself fails to disclose notifying the caller of the error, and the Federal Circuit has instructed courts not to "import[] limitations from the specification into the claims." *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005).

Claim 26 is a systems claim that implements the method in Representative Claim 21. To reiterate, the Federal Circuit made clear that "system claims that closely track method claims and are grounded by the same meaningful limitations will generally rise and fall together." *Accenture Glob. Servs.*, 728 F.3d at 1341. Claim 26 appears to add only one element: a generic "controller" that is configured to carry out Representative Claim 21's method. This "generic electronic component" is not a "meaningful limitation" under *Accenture*. *Id.* at 1342.

In sum, Representative Claim 21 is representative of claims 6 and 26 of the '762 Patent.

B. *Alice* Step One: The Asserted Claims are Directed to an Abstract Idea

Having concluded that four claims are together representative of the twenty asserted claims, the Court now conducts the *Alice* analysis for the representative claims. The Court begins with *Alice* Step One, at which the Court assesses "whether the claims at issue are directed to a patent-ineligible concept"—here, an abstract idea. The Court first analyzes Representative Claim 1, the only claim for which the parties have provided substantial briefing, and then turns to the remaining representative claims.

1. Representative Claim 1 is Directed to an Abstract Idea

The Step One inquiry considers the claims "in light of the specification" to determine "whether their character as a whole is directed to excluded subject matter." *Enfish*, 822 F.3d at 1335 (citation omitted). Accordingly, the Court conducts its analysis by first identifying what the "character as a whole" of Representative Claim 1 is "directed to," and then determining 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. *Id.* 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."). At the same time, even "lengthy and numerous" claims may be reduced to a basic abstract concept. *See Elec. Power Grp.*, 830 F.3d at 1351. The Court's inquiry should therefore "center[] on determining the 'focus' of the claims." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017), *cert. denied*, 139 S. Ct. 378 (2018).

The Court holds that the character of Representative Claim 1 is an abstract idea: the idea of routing a communication based on characteristics of the participants. Claim 1 presents this abstract idea in five steps: (1) receiving identifiers associated with the first and second participants when a communication is initiated, (2) searching a database using the first participant identifier and locating a collection of attributes associated with the first participant, (3) processing the second participant identifier using at least one first participant attribute to produce a new second participant identifier, (4) classifying the communication as a "system communication" or an "external network communication" "based on" the new second participant identifier, and (5) producing a "routing message" that causes the communication to be established either within the system or through a gateway to an external network. *See* '002 Patent at 37:30 – 38:2.

Although there is no "single, universal" definition of an abstract idea, the Court looks to past patentable subject matter cases as helpful guideposts. *Amdocs*, 841 F.3d at 1294. Three themes of the U.S. Supreme Court's and the Federal Circuit's jurisprudence demonstrate that Representative Claim 1 is directed to an abstract idea: (a) the claimed method discloses only generalized steps drafted in purely functional terms; (b) it is analogous to well-known, longstanding practices; and (c) it does not recite an improvement in computer functionality. The Court discusses each in turn.

a. Representative Claim 1 Discloses Only Generalized Steps Using Purely Functional Language

The Federal Circuit has repeatedly said that a claim is abstract if it describes a process in "result-based functional language" and fails to "sufficiently describe how to achieve these results

in a non-abstract way." *Two-Way Media*, 874 F.3d at 1337 (Fed. Cir. 2017); *see also Bridge & Post, Inc. v. Verizon Commc'ns, Inc.*, No. 2018-1697, 2019 WL 2896449, at *10 (Fed. Cir. July 5, 2019 ("The distinction between claims that recite functions or results (the 'what it does' aspect of the invention) and those that recite concrete means for achieving particular functions or results (the 'how it does it' aspect of the invention) is an important indicator of whether a claim is directed to an abstract idea."). "Indeed, the essentially result-focused, functional character of claim language has been a frequent feature of claims held ineligible under § 101." *Elec. Power Grp.*, 830 F.3d at 1356. For that reason, claims reciting "[g]eneralized steps to be performed on a computer using conventional computer activity are abstract." *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (internal quotation marks omitted).

For instance, in *Vehicle Intelligence and Safety LLC v. Mercedes-Benz USA, LLC*, the patent-in-suit claimed methods and systems for screening equipment operators using an "expert system" to detect potential impairment. 635 Fed. Appx. 914, 916 (2015). The expert system apparently measured equipment operator characteristics and used this information to determine if the operator is impaired. *Id.* But "critically absent from the entire patent is how the . . . decision module determines if an operator is impaired based on these measurements." *Id.* at 918. The Federal Circuit therefore found the patent to be abstract due to "the absence of any details about how the 'expert system' works." *Id.* at 917.

The Federal Circuit's recent decision in *Innovation Sciences, LLC v. Amazon.com, Inc.* further illustrates the problem with result-focused claims. No. 2018-1495, 2019 WL 2762976 (Fed. Cir. July 2, 2019). There, the Federal Circuit held that the disputed claim was "directed to the abstract idea of securely processing a credit card transaction with a payment server." *Id.* at *3. The Federal Circuit explained:

> The claim recites, in merely functional, result-oriented terms, receiving credit card payment information at a server different from the server on which the item for purchase is listed, sending the payment information "to an established financial channel," receiving a "processing decision" from that channel, sending payment confirmation, and updating the server supporting the website listing the item that the item was purchased.

Id. As a result, the Federal Circuit deemed the claim to be "an abstraction—an idea, having no particular concrete or tangible form." *Id.* (quoting *Ultramercial, LLC*, 772 F.3d at 715).

So too here. Representative Claim 1 is worded in such broad, functional terms, so as to describe a desired result—routing the communication—without explaining *how* that result is achieved.

To begin with, the Patents-in-Suit do not purport to invent Voice-over-IP communication systems. The common specification readily concedes the existence of Voice-over-IP systems as of 2006, the priority date for the Patents-in-Suit. The specification further concedes that existing Voice-over-IP systems are configured to "enable voice calls to be made within or between IP networks, and between an IP network and a switched circuit network (SCN), such as the public switched telephone network (PSTN)." '002 Patent at 1:30-34. Representative Claim 1 is directed only to routing such calls. The Patents-in-Suit certainly did not invent call routing. The FAC describes the evolution from human operators—who physically connected calls—to automated telephone switches, which were used to support analog and digital voice calls. *See* FAC ¶¶ 15-19. The FAC also describes preexisting methods for routing calls initiated by callers on a private Voice-over-IP network to callees on the PSTN. *See* FAC ¶¶ 21-22.

What Representative Claim 1 purports to invent, then, is a "distinct manner of call routing." FAC ¶ 22. The steps in the method include (1) receiving identifiers associated with the first and second participants when a communication is initiated, (2) searching a database using the first participant identifier and locating a collection of attributes associated with the first participant, (3) processing the second participant identifier using at least one first participant attribute to produce a new second participant identifier, (4) classifying the communication as a "system communication" or an "external network communication" "based on" the new second participant identifier, and (5) producing a "routing message" that causes the communication to be established either within the system or through a gateway to an external network. However, as set forth below, the claim recites nothing more than result-focused steps and generic technology.

Turning first to step (1), Representative Claim 1 recites receiving generic "identifiers"

associated with the first and second participants. The Patents-in-Suit do not purport to invent or alter such identifiers, which are preexisting components of Voice-over-IP and PSTN communication systems. The specification discloses that "[t]he caller identifier field may include a PSTN number or a system subscriber username." '002 Patent at 17:61-63. As examples of the callee identifier, the specification identifies "a callee telephone/videophone number." *Id.* at 15:24-25. In other words, the first and second participant identifiers consist of either a telephone number or a username. Neither telephone numbers nor usernames were invented by the '002 Patent. The FAC acknowledges that telephone numbers have been used in call routing since "the turn of the 20th century," FAC ¶¶ 16-19, and that Voice-over-IP systems have used "user identifier[s] such as an email or nickname" since their advent, FAC ¶ 22. Besides, the '002 Patent does not disclose the creation of the username, which is "assigned upon subscription or registration into the system," i.e., the private network. '002 Patent at 15:52-53; *see, e.g.*, *id* at 4:18-20, 15:3-5. Hence, the claim's step of "receiving" "identifiers" associated with the participants amounts to nothing more than collecting preexisting information. The Federal Circuit has made clear that "collecting information, including when limited to particular content (which does not change its character as information), is within the realm of abstract ideas." *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055–56 (Fed. Cir. 2017) (internal quotation marks and alterations omitted).

At step (2), Representative Claim 1 claims "access[ing] a database comprising user profiles" and "locat[ing]" a user profile associated with the first participant identifier. '002 Patent at 37:41-45. First of all, Representative Claim 1 does not cover the initial creation of the database. As a result, the claim's reference to a database is purely generic. Because the database is generic, the claim's command to "access" the database and "locate" a user profile is likewise generic. Under the Federal Circuit's case law, reading a preexisting database and locating information is an unpatentable abstract idea. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) ("[O]btaining information . . . can be performed by a human who simply reads records of . . . transactions from a preexisting database."). By the same token, Representative Claim 1 vaguely defines the user profile as "associating a respective plurality of attributes with a

respective user." '002 Patent at 37:41-45. The claim does not then define the "attributes," but the specification makes clear that the Patents-in-Suit did not invent them or the user profile. The specification lists example attributes (national dialing digits, international dialing digits, country code, local area code, the maximum number of concurrent calls the user is entitled to cause, username, *see id.* at 18:40-58; 19:37-49), but does not explain how they form a user profile.

Next, at step (3), Representative Claim 1 proceeds to claim "processing" the second participant identifier "based on" one or more of the attributes from the first participant's user profile. *Id.* at 37:46-50. The claim does not disclose what the "processing" entails, or how the attributes associated with the first participant are used in processing. The claim states only that the processing "produce[s] a new second participant identifier." *Id.* In other words, this step is "so broadly worded that it encompasses literally" any form of data manipulation. *CyberSource Corp.*, 654 F.3d at 1373 (step of claim that required "*utilizing* the map of credit card numbers to determine if the credit card transaction is valid" "is so broadly worded that it encompasses literally any method for detecting fraud based on the gathered transaction and Internet address data" (emphasis added)); *see also Clarilogic, Inc. v. FormFree Holdings Corp.*, 681 Fed. App'x 950, 954 (Fed. Cir. 2017) ("But a method for collection, analysis, and generation of information reports, *where the claims are not limited to how the collected information is analyzed or reformed*, is the height of abstraction." (emphasis added)).

Step (4) of Representative Claim 1 is similarly vague. The claim calls for "classifying the communication, based on the new second participant identifier, as a system communication or an external network communication." *Id.* at 37:51-54. The claim contains no further detail as to how the classification is accomplished—for instance, which criteria matter, and how those criteria are applied. The specification describes example criteria, but these are equally generic. For instance, the specification provides, "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 2:55-57. Yet, the specification does not explain how to "identify a subscriber to the private network." The specification further provides, "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." *Id.* at 2:61-67. Moreover, as in step (2), the "database of records" is a preexisting database. The Federal Circuit has time and again found methods that "collect[] information" and "analyze[] the information according to one of several rules" to be within "the realm of abstract ideas." *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016); *see also Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) ("We have previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data.").

Finally, step (5) recites "producing" either a "system routing message" or an "external routing message." '002 Patent at 37:59-60, 37:67 – 38:1. The specification indicates that the "system routing message" is a "routing message" that "causes the communication to be established" within the system, i.e., the private network. '002 Patent at 37:59-60; 15:4-7. Likewise, an "external routing message" is simply a "routing message" that "causes the communication to be established" through a gateway to the an external network. '002 Patent at 37:67 – 38:1, 15:7-9. Yet, the claim fails to explain how a routing message is produced or how it "causes" the communication to be established. The claim says only that the routing message "identif[ies] an Internet address associated with" either (a) the second participant device, in the case of a system communication, or (b) a gateway to an external network, in the case of an external network communication. Figures 15 and 16 of the specification—which are example routing messages—confirm that a routing message simply displays information, *viz.*, an Internet address corresponding to the callee and certain optional data. *See Microsoft Corp.*, 550 U.S. at 451 n.12 (holding that information itself is intangible). Critically, however, the claim and the specification do not explain how to "identify" the appropriate Internet address. The claim also does not provide any link between step (4)—classifying the communication—and step (5)—producing the routing message. In other words, the routing message simply displays the results of some unrevealed, unexplained process for identifying the appropriate Internet address.

As just shown, Representative Claim 1 ultimately amounts to nothing more than the abstract idea of collecting data, analyzing it, and displaying the results. The Federal Circuit has found similar claims to be purely functional. The Federal Circuit has consistently held that "claims focused on collecting information, analyzing it, and displaying certain results of the collection and analysis" are directed to an abstract idea." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (invalidating a patent proposing a technique for performing statistical analysis on investment data), *cert. denied*, 139 S. Ct. 2747 (2019); *see also In re TLI Commc'ns*, 823 F.3d at 611 ("[T]he concept of classifying an image and storing the image based on its classification" is an abstract idea.). In Representative Claim 1, the data involved are "identifiers" and "user profiles" associated with the participants, and the results take the form of a "routing message." As already discussed, these limitations are conventional features of a Voice-over-IP system. That the results of the data analysis are displayed in a routing message "serves to limit the field of use of the abstract idea to a particular existing technological environment, but it does not render the claims any less abstract." *Innovation Scis.*, 2019 WL 2762976 at *3 (internal quotation marks and alterations omitted); *see also Symantec Corp.*, 838 F.3d at 1320 ("[P]erformance of an abstract concept in the environment of the telephone network is abstract.").

Plaintiff argues that Representative Claim 1 is "not merely directed to information gathering and analysis," though the claim involves information processing. Pl. Opp. at 8. According to Plaintiff, "the asserted claims do much more—they enable a telephone call for example." *Id.* What Plaintiff fails to recognize, however, is that Representative Claim 1 does not in fact "enable" a telephone call because the claim fails to explain *how* to carry out the method for enabling a telephone call. The Federal Circuit's decision in *Two-Way Media* is particularly instructive. There, the Federal Circuit held that two patents claiming a method for routing "streams of audio and/or visual information" "over a communication network" were directed to an abstract idea. 874 F.3d at 1334-35, 1337. The Federal Circuit said that "[t]he claim requires the functional results of 'converting,' 'routing,' 'monitoring,' and accumulating records,'" but "recite[s] only conventional computer components." *Id.* at 1337-38. As a result, the claim

"manipulates data but fails to do so in a non-abstract way." *Id.* at 1338. Here, too, Representative Claim 1 contains no instructions for how each step of the routing process is accomplished. The claim simply requires the functional results of "receiving," "processing," and "classifying" a call based on the participant identifiers, and then ultimately "identifying" an appropriate Internet address.

In short, because the claim is bereft of the critical "how it does it" aspect of the invention, *Bridge & Post, Inc.*, 2019 WL 2896449, at *10, Representative Claim 1 is directed to the abstract idea of routing a communication based on characteristics of the participants.

b. Representative Claim 1 is Analogous to Well-Known, Longstanding Practices

That Representative Claim 1 is analogous to well-known, longstanding practices in telephony lends further support to the Court's conclusion that the claim is directed to an abstract idea. In particular, Representative Claim 1 simply discloses the concept of call routing, which can be—and has been, in the past—accomplished manually.

Courts have often compared high technology claims to their manual or "brick-and-mortar" counterparts in determining whether claims are directed to an abstract idea. For instance, in *Symantec*, the Federal Circuit concluded that claims relating to "receiving, screening, and distributing e-mail" were directed to an abstract idea. 838 F.3d at 1316. The claims at issue recited a process of receiving email messages and applying business rules to control the delivery of the email messages. *Id.* at 1316–17. The Federal Circuit found these steps analogous to those performed by corporate mailrooms, which "receive correspondence, keep business rules defining actions to be taken regarding correspondence based on attributes of the correspondence, apply those business rules to correspondence, and take certain actions based on the application of business rules." *Id.* at 1317. The Federal Circuit therefore concluded that, because the claims were directed to "fundamental practices long prevalent in our system and methods of organizing human activity," they were directed to an abstract idea. *Id.* at 1318 (internal quotation marks omitted).

Here, the Court finds that Representative Claim 1 is analogous to preexisting practices of manual call routing, a "fundamental practice long prevalent in our system." As established above, call routing predates the advent of IP-based communication systems. For example, in the early days of telephony, the caller would tell a human operator whom the caller wished to call. FAC ¶ 15. The operator would then "physically pull out a cable associated with the caller's phone and plug the cable into a socket associated with the callee's telephone." *Id.* "If the callee was associated with a different switchboard," the original operator would involve a second operator "to bridge the gap to the appropriate switchboard." *Id.*

Turning to more recent times, Plaintiff also concedes the existence of other methods for routing calls initiated by callers on a private Voice-over-IP network to callees on the PSTN. *See* FAC ¶¶ 21-22. According to Plaintiff, one conventional method for routing calls between different networks is "to require users to input a special code (e.g., a prefix digit of '9')" in order to initiate a call on the PSTN; otherwise, the call proceeds on the private network. FAC ¶¶ 24, 30. To do so, the caller would first need to ascertain whether the callee is a subscriber to the network. Plaintiff places great weight on the fact that the Patents-in-Suit do not require the caller to "ma[ke] an affirmative decision when placing a call as to whether the call" is a systems communication or an external network communication. FAC ¶ 24.

In place of requiring the caller to make an affirmative decision, Representative Claim 1 recites an unspecified "controller comprising at least one processor" that receives the participant identifiers and, with the aid of a "database," classifies the call. First of all, there can be no doubt that the "controller comprising at least one processor" is generic computer machinery. In *Alice*, for instance, the U.S. Supreme Court found that a "data processing system" with a "communications controller" and "data storage unit" was "purely functional and generic," and therefore insufficient to confer patentability. 573 U.S. at 226 ("Nearly every computer will include a 'communications controller' and a 'data storage unit' capable of performing the basic calculation, storage, and transmission functions required by the method claims."). So too here. Pursuant to the specification, the controller is "implemented" as a "module" on a "computer."

'002 Patent at 13:51-53. The specification does not assert that the computer containing the controller is specialized in any way, rather than being a generic computer.

The specification actually describes two types of controllers—a "routing controller" and a "call controller"—and it is unclear to which Representative Claim 1 refers. In any event, neither is defined in anything other than generic terms by the specification. The specification provides that a routing controller "includes an RC [routing controller] processor circuit." *Id.* at 17:65-67. The specification goes on to define the RC processor unit as comprising a processor, different types of memory, and an input/output port. *Id.* at 17:67 – 18:3. The specification describes the call controller as including a microprocessor, memory, and an input/output port. *Id.* at 16:41-50, Fig. 4. As with the computer, there is no indication that the processor, microprocessor, memory, or input/output port are specialized. In sum, the controller is some unspecified module composed of generic computer components and implemented on a generic computer.

Furthermore, the steps performed by the controller under Representative Claim 1 are no different than the ones that would have been previously performed manually by the caller or by a human operator. The claim discloses "receiving" identifiers associated with the caller, "processing" the callee identifier using various "attributes" of the caller, and directing the call accordingly. This basic process is analogous to, for example, a human operator receiving the name of the callee from the caller, comparing the switchboard for the callee to the switchboard for the caller, and directing the call by plugging the cord into the appropriate socket on the appropriate switchboard. In this analogy, the switchboard is akin to the network (i.e., the private network or an external network) and the socket is the Internet address. Nor does the controller generate or apply novel data in accomplishing the routing process. As just mentioned, the data used by the controller include the participant identifiers and the "attributes" associated with the first participant. Those attributes include national dialing digits, international dialing digits, country code, local area code, the maximum number of concurrent calls the user is entitled to cause, or username—none of which are unique to the Patents-in-Suit.

Thus, the claim provides simple automation of a task previously performed manually. The

Federal Circuit has "made clear that mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology." *Credit Acceptance Corp.*, 859 F.3d at 1055. Accordingly, although the claim may increase convenience for the caller, it is not directed to an improvement in the IP-based communication system. The technological elements of the claim are "known telephony technology" performing "routine functions." *BroadSoft, Inc. v. CallWave Commc'ns, LLC*, 282 F. Supp. 3d 771, 781 (D. Del. 2017), *aff'd*, 739 F. App'x 985 (Fed. Cir. 2018) ("When the call processing system receives a call, known telephony technology elements perform the routine functions of accessing stored information and directing the call in accordance with the stored instructions provided in advance by the called party.").

Other courts have come to the same conclusion in cases involving call routing. In *Parus Holdings, Inc. v. Sallie Mae Bank*, the claim at issue "focuses on the automated tasks of (1) receiving messages via a phone or Internet connection and then transmitting those messages to a subscriber by phone or Internet; and (2) receiving a message from a subscriber by phone or Internet and then forwarding that message based on rules established by the subscriber." 137 F. Supp. 3d 660, 672 (D. Del. 2015), *aff'd*, 677 Fed. App'x 682 (Fed. Cir. 2017). The Federal Circuit determined that the claim "calls 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.* The *Parus Holdings* court then found the claim 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.* In the instant case, Representative Claim 1's method of routing a call by a subscriber of a private network involves a "computer and telecommunications network" performing similar steps: first, *receiving* information from the first participant (i.e., the SIP invite message, which contains the first and second participant identifiers); second, *managing* that information by "processing" it and "classifying" the call based on undisclosed rules; and finally, *sending* a routing message to the network, which causes the call to be connected to the second participant.

In addition, in *Telinit Techs., LLC v. Alteva, Inc.*, the court considered a "method for initiating telephone calls" by: "(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 (E.D. Tex. Sept. 21, 2015). The *Telinit* court found that this "is precisely the function of a telephone operator." *Id.* Again, Representative Claim 1 recites similarly broad, functional steps for connecting a communication.

Plaintiff resists the analogy to switchboard operators. Plaintiff argues that, unlike under Representative Claim 1, "[o]perators 'could' and did routinely route calls based on callee identifier alone." Pl. Opp. at 17. That is because "[i]n PSTN numbering plans, telephone numbers were self-interpreting, (e.g., *a country code, area code*, or exchange code self-evidently facilitated the next step in routing)." *Id.* (emphasis added). Hence, says Plaintiff, operators would not have needed to "evaluate" the callee's identifier based on "a caller's profile settings (attributes)." *Id.* As already discussed, however, the specification provides that a caller's "profile" simply comprises "attributes," at least two of which (i.e., country code, local area code) Plaintiff concedes were built into PSTN telephone numbers. Moreover, Plaintiff cannot seriously argue that "evaluating" a callee identifier is a distinct "method of analysis." Thus, Plaintiff's own description of PSTN telephone numbers defeats its argument that operators did not use information analogous to that recited in the Patents-in-Suit.

Furthermore, according to Plaintiff's own account of early human operators, callers simply told the operators the name of the person they wished to call. It was presumably the task of the operator to determine the appropriate switchboard and to involve a second operator if necessary. Just as Representative Claim 1 involves "evaluating" the callee identifier based on the caller's profile, the decision to involve a second operator would require comparing the switchboard of the caller to the switchboard of the callee. The Court is therefore unconvinced by Plaintiff's attempt to distinguish Representative Claim 1 from switchboard operators.

Plaintiff's counterargument that a person could not "constitute a physical computer that

transmits a telephone call over a physical network," Pl. Opp. at 14, similarly misses the mark. To be sure, a human is not a computer. The point is that, "with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human." *Symantec Corp.*, 838 F.3d at 1318; *see also CyberSource Corp.*, 654 F.3d at 1376 (finding claims invalid where "one could mentally perform the fraud detection method that underlies both claims 2 and 3 of the '154 patent," though the claim involved execution of the method "by one or more processors of a computer system"). Put another way, the "physical computer" simply acts as a tool to carry out the abstract process.

Plaintiff also contends that the presence of several physical components—an "Internet connected first participant device," "a physical device, such as a handheld phone or a computer," and "a physical controller"—create a "distinct high technology network environment." Pl. Opp. at 7-8. But again, each of the recited components are generic, and are simply invoked as tools to carry out the abstract process. Without any "technical details for the tangible components" in the claim or the specification, the invention cannot be said to meaningfully limit the abstract idea of call routing. *In re TLI Commc'ns*, 823 F.3d at 612 ("The specification fails to provide any technical details for the tangible components, but rather predominately describes the system and methods in purely functional terms.").

The Federal Circuit rejected a similar argument in *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253 (Fed. Cir. 2016). In that case, the Federal Circuit concluded that the claims at issue were directed to the abstract idea of "providing out-of-region access to regional broadcast content." *Id.* at 1258. The Federal Circuit reasoned that "[t]he practice of conveying regional content to out-of-region recipients" had been employed "by nearly every form of media" for decades, and was "not tied to any particular technology." *Id.* Relevant here, the Federal Circuit recognized that the claims described "wireless delivery of regional broadcast content only to cellphones," but "made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract." *Id.* at 1258–59 (citations omitted). Instead, the idea "can be implemented in myriad ways ranging from

the low-tech, such as by mailing copies of a local newspaper to an out-of-state subscriber, to the high-tech, such as by using satellites to disseminate broadcasts of sporting events." *Id.* at 1258. Here, the Court likewise finds that Representative Claim 1 is directed to the abstract idea of routing a communication based on characteristics of the participants—a "broad and familiar concept" that is "untethered to any specific or concrete way of implementing it." *Id.* at 1258.

c. Representative Claim 1 Does Not Recite an Improvement in Computer Functionality

Plaintiff nevertheless contends that Representative Claim 1 is not directed to an abstract idea because it discloses an "improvement in the functioning of a computer" under *Enfish*, 822 F.3d at 1337. Pl. Opp. at 8-9. In *Enfish*, the Federal Circuit reversed the district court's finding that the asserted claims were directed to the abstract idea of "storing, organizing, and retrieving memory in a logical table." 822 F.3d at 1337. The Federal Circuit found that "the claims are not simply directed to any form of storing tabular data, but instead are specifically directed to a self-referential table for a computer database." *Id.* That self-referential table, said the court, "is a specific type of data structure designed to improve the way a computer stores and retrieves data in memory." *Id.* at 1339. As a result, in contrast to the claims at issue in *Alice* and *Versata*—which "can readily be understood as simply adding conventional computer components to well-known business practices"—the *Enfish* claims "are directed to an improvement in the functioning of a computer." *Id.* at 1338.

Here, Plaintiff believes that the Patents-in-Suit "improve communication routing technology and infrastructure in a manner that overcomes technical limitations in prior art systems." *Id.* at 9. Specifically, Plaintiff alleges four ways in which Representative Claim 1 improves existing communication routing technology: (1) "user-specific handling," (2) "transparent routing," (3) "resiliency," and (4) "communication blocking." *Id.* at 10-12; *see also* FAC ¶ 31. Defendants respond that Representative Claim 1 "does not improve any specific functionality," and rather "only uses previously known technology to perform purely functional steps." Def. Cons. Mot. to Dismiss at 12. For the following reasons, the Court rejects each of

these four alleged improvements.

(1) "User-specific handling"

The Court begins with "user-specific handling." By "user-specific handling," Plaintiff apparently means that the method disclosed by Representative Claim 1 "supports user-specific calling styles, e.g., calling styles from any continent or country based on the application of user-specific attributes to callee identifiers and network classification criteria to route a call." FAC ¶ 32. The claimed method also supports "special callee identifiers such as usernames." *Id.* According to Plaintiff this is an improvement because "prior art technology required users to place a call by using a specific callee identifier format or by following certain dialing conventions." Pl. Opp. at 10. The Court accepts, as it must at the Rule 12(b)(6) stage, Plaintiff's allegation that prior art technology did not support "user-specific calling styles." *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1129 (Fed. Cir. 2018) (district court could not conclude that the claimed "data file" was conventional in light of plaintiff's allegations to the contrary). The Court further accepts that overcoming this problem would constitute a meaningful improvement in call routing technology. Nevertheless, Representative Claim 1 is not directed to this improvement because the claim does not disclose *how* to achieve the alleged improvement. "[C]laims that are 'so result-focused, so functional, as to effectively cover any solution to an identified problem' are frequently held ineligible under section 101." *Affinity Labs*, 838 F.3d at 1265 (quoting *Elec. Power Grp.*, 830 F.3d at 1356).

Two-Way Media again provides a helpful guidepost. There, plaintiff Two-Way Media asserted that "the claim solves various technical problems, including excessive loads on a source server, network congestion, unwelcome variations in delivery times, scalability of networks, and lack of precise recordkeeping." 874 F.3d at 1339. In analyzing whether the claim solved those problems, the Federal Circuit emphasized that the inquiry "must turn to any requirements for *how* the desired result is achieved." *Id.* (internal quotation marks omitted) (emphasis in original). The Federal Circuit then found that "claim 1 here only uses generic functional language to achieve these purported solutions," and so was abstract. *Id.* Similarly, in *Interval Licensing LLC v. AOL,*

Inc., the Federal Circuit rejected the plaintiff's argument that the claimed "attention manager" is directed to a "technical improvement to display devices." 896 F.3d 1335, 1345 (Fed. Cir. 2018). There, as in *Two-Way Media*, the claim "simply demand[ed] the production of a desired result (non-interfering display of two information sets) without any limitation on how to produce that result." *Id.* As the Federal Circuit put it, "Instead of claiming a solution for producing that result, the claim in effect encompasses all solutions." *Id.*

Rather than "patenting a particular concrete solution to [the] problem" of user-specific calling styles, Representative Claim 1 "attempt[s] to patent the abstract idea of a solution to the problem in general." *Electric Power*, 830 F.3d at 1356. In Plaintiff's own words, the claim overcomes the limitations of prior art technology "by evaluating a called party identifier based on profile settings ('attributes') associated with the calling party." Pl. Opp. at 10. But any call routing system configured to deal with multiple calling styles would necessarily involve "evaluating" a called party identifier. Critically, the claims do not explain how the attributes are used to evaluate the called party identifier. As a result, Representative Claim 1 "recite[s] the what of the invention, but none of the how that is necessary to turn the abstract idea into a patent-eligible application." *TDE Petroleum Data*, 657 Fed. App'x. at 993 (emphases in original). It therefore cannot be said that Representative Claim 1 is directed to "user-specific handling."

(2) "Transparent routing"

Plaintiff's claim that Representative Claim 1 discloses "transparent routing" similarly falls short. According to Plaintiff, the claimed method routes a call "transparently to the user, without the user specifying which network to use" (such as by dialing a predefined prefix like the number 9). Pl. Opp. at 11; *see also* FAC ¶ 36. Plaintiff alleges this is an improvement because "the caller may not, and need not, know the network location of the called party." Pl. Opp. at 11. However, these allegations are refuted by the claim and the specification. *See Aatrix*, 890 F.3d at 1358 ("[A] court need not accept as true allegations that contradict matters properly subject to judicial notice or by exhibit, such as the claims and the patent specification.") (internal quotation marks omitted). Defendant is correct that the claim and the specification "do not specify what information is

shared with participants or what the user must manually specify." Def. Reply at 7. That is, the specification explains that the controller receives the "callee identifier" "from the calling subscriber," '002 Patent at 15:1-2—in other words, the caller must provide the callee identifier. Yet, the claim and the specification never indicate that the callee identifier does *not* contain information about "which network to use." On the contrary, the specification defines the callee identifier as, "e.g., a callee telephone/videophone number." *Id.* at 15:24-25. Plaintiff itself argues that conventional telephone numbers are "self-interpreting," in that calls could be routed based upon the telephone number alone. Pl. Opp. at 17. The callee's network must be known in order to successfully route a call, which suggests a conventional telephone number *does* contain information about the callee's network. In providing the callee's telephone number, then, the caller may simultaneously be specifying "which network to use."

Even if it is true that the claimed method obviates the need for the caller to actively specify the appropriate network, that alone is not sufficient to make Representative Claim 1 non-abstract. As discussed at length above, Representative Claim 1 simply automates the steps that would have been performed manually by the caller. Without more, "mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology." *Credit Acceptance Corp.*, 859 F.3d at 1055. Eliminating manual entry by the caller is, of course, inherent in such automation. *See Voit Techs., LLC v. Del-Ton, Inc.*, 757 F. App'x 1000, 1003–04 (Fed. Cir. 2019) (claims directed to "improved speed or efficiency inherent with applying the abstract idea on a computer" are still abstract). The Court must therefore agree with Defendant that Representative Claim 1 is not directed to transparent routing.

(3) "Resiliency"

The Court also rejects Plaintiff's contention that Representative Claim 1 provides "resiliency." Plaintiff uses the term "resiliency" to mean that the communication system "can provide reliable service to large areas including countries and continents" with "very large number[s] of subscribers." FAC ¶ 37; *see also* Pl. Opp. at 12. Prior systems—i.e., the Public Switched Telephone Network ("PSTN") and private branch exchanges ("PBXs")—were unable to

provide reliable service because they "did not always have other nodes able to take up the load if a particular node failed" or if there was a "burst[] of excessive demand." FAC ¶ 37 (internal quotation marks and alterations omitted). The communication system recited in Representative Claim 1 allegedly overcomes these limitations by "flexibly assigning nodes to particular geographical areas, including the option of adding redundant nodes with overlapping responsibility for load sharing." *Id.*

Again, the Court accepts all of these allegations as true. The "resiliency" Plaintiff describes, however, is not disclosed by Representative Claim 1. Representative Claim 1 is directed to a method for routing a communication made on a communication system (i.e., an IP-based communication system)—not to a design for the communication system itself. It is therefore unsurprising that neither the claim nor the specification discloses how to design a communication system that "makes it simple to allocate or add new nodes and gateways to particular regions or routes." Pl. Opp. at 12. The claim makes no mention of "nodes" at all, and the specification references the existence of nodes without defining them. For instance, the specification describes the invention as "a process for operating a call routing controller to facilitate communication between callers and callees *in a system comprising a plurality of nodes with which callers and callees are associated*." '002 Patent at 1:59-62. At most, then, resiliency is a feature of the underlying IP-based communication system on which the claim operates. The method disclosed by Representative Claim 1 may be capable of directing communications across redundant nodes, but it does not disclose the allocating or adding of those nodes in the first instance. As a result, the Court rejects Plaintiff's contention that Representative Claim 1 is drawn to "resiliency."

At this point, the Court takes the opportunity to address a stray argument, appended to the end of Plaintiff's argument on "resiliency." Plaintiff asserts, "As a further improvement, unlike some prior art systems, the technology does not require access to PSTN databases." Pl. Opp. at 12. Although Plaintiff fails to develop the argument beyond this single sentence, the Court rejects the argument on the merits. The Court does not accept Plaintiff's allegation that the claimed

method "does not require access to PSTN databases." As with "transparent routing," this allegation is contradicted by the patent itself. Neither the claim nor the specification gives any details about the "database" accessed in the claimed method; the claim and specification certainly do not specify that PSTN databases are not used. In fact, the specification notes that preexisting IP telephones "can also access PSTN databases." Plaintiff's bare allegation that the claimed method does not require access to the PSTN and that this constitutes an improvement cannot supplement what is actually disclosed by the patent.

(4) "Communication blocking"

Finally, turning to "communication blocking," Plaintiff contends that "the technology improves over many prior art blocking methods." However, as discussed above in the designation of representative claims, Representative Claim 1 does not recite blocking of the communication. *See also* Pl. Opp. 4-5. Consequently, this alleged improvement is inapplicable to Representative Claim 1. The Court instead analyzes "communication blocking" solely with regard to Representative Claim 26, which the Court has already concluded is representative of the claims that recite blocking of the communication.

Accordingly, the Court agrees with Defendants that Representative Claim 1 does not "focus on a specific means or method that improves the relevant technology" and is "instead directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *McRO*, 837 F.3d at 1314; *see* Def. Cons. Mot. to Dismiss at 12.

d. Summary

In short, Representative Claim 1 is not directed to an improvement in communication routing technology, or in computer functionality more generally. Although Representative Claim 1 purports to disclose an improved method of call routing, the claim fails to provide any specific or concrete means for achieving the desired result. Instead, the claim discloses only broad, functional steps such as "receiving" identifiers; "accessing" a database; "processing" an identifier; "classifying" the communication; and "producing" a routing message. Moreover, due to its level of generality, the claim is simply an attempt to implement well-known, longstanding call routing

practices using a computer. For these reasons, the Court holds that Representative Claim 1 is directed to the abstract idea of routing a communication based on characteristics of the participants.

2. The Remaining Representative Claims are Directed to an Abstract Idea

The Court now turns to each of the remaining representative claims and determines whether, in light of its conclusion that Representative Claim 1 is directed to an abstract idea, these remaining claims are also directed to an abstract idea. The Court concludes that they are.

a. Representative Claim 9

Recall that Representative Claim 9, which is claim 9 of the '549 Patent, discloses a method of "routing a communication" between a first participant and a second participant by (1) receiving an identifier associated with the second participant when a communication is initiated, (2) searching a memory and locating at least one attribute associated with the first participant, (3) processing the second participant identifier using at least one first participant attribute to produce a new second participant identifier, (4) classifying the communication as a "system communication" or an "external network communication" based upon whether a profile associated with the new second participant identifier exists in a database, and (5) producing a "routing message" that causes the communication to be established either within the system or through a gateway to an external network. *See* '549 Patent 38:48-59.

As previously discussed, the Court found and Plaintiff does not contest that Representative Claim 9 is substantially similar to Representative Claim 1 in all but one respect. Representative Claim 1 broadly recites "classifying" the communication as a system communication or an external network communication "based on" the new (i.e., processed) second participant identifier. In Plaintiff's own words, Representative Claim 9 adds to Representative Claim 1 the limitation that the communication is classified "based on whether a profile associated with the processed second participant identifier exists in a database." Pl. Opp. at 5. Of relevance to the Step One analysis, Representative Claim 9 is more specific than Representative Claim 1, which does not state how the processed second participant identifier is used to classify the communication.

The additional limitation does not meaningfully change the character of Representative Claim 9. Representative Claim 9, like Representative Claim 1, is directed to the abstract idea of routing a communication based on characteristics of the participants. Representative Claim 9 is narrower, to be sure. It does not encompass all manners of "classifying," because it is confined to classifying based upon whether a profile associated with the new second participant identifier exists in a database. But "a claim is not patent eligible merely because it applies an abstract idea in a narrow way." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018). "In *Two-Way Media*, we determined that a claimed method was directed, in part, to the abstract idea of 'sending information,' even though the claim specifically concerned 'audio/and or visual information' transmitted over a communications network." *Id.* (citation omitted).

Here, searching a database for a particular entry—a generic "identifier"—is no less abstract than the broader idea of "classifying" the communication. *See, e.g.*, *Content Extraction, 776 F.3d at 1347* (finding claim is directed to the abstract idea of "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory."). Moreover, humans can and have performed the task manually, such as when looking for a listing in a physical phone book. "Adding one abstract idea" (searching a database) "to another abstract idea" (classifying) "does not render the claim non-abstract." *RecogniCorp*, 855 F.3d at 1327. The Court therefore finds that Representative Claim 9 is directed to the same abstract idea as Representative Claim 1: routing a communication based on characteristics of the participants.

b. Representative Claim 26

Next, Representative Claim 26, which is claim 26 of the '002 Patent, discloses "the method of [Representative] [C]laim 1" plus the additional steps of "accessing the database to locate communication blocking information associated with the second participant" and "blocking the communication when the communication blocking information identifies the first participant identifier." '002 Patent at 42:32-39. Other than these blocking steps, Representative Claim 26 is identical to Representative Claim 1.

The Court finds that the addition of "blocking" does not alter the conclusion that Representative Claim 26 is directed to an abstract idea. Representative Claim 1, from which Representative Claim 26 depends, is directed to the abstract idea of routing a communication based on characteristics of the participants. Representative Claim 26 clarifies that such routing may require blocking the communication instead of causing the communication to be established.

To begin with, Representative Claim 26 discloses "blocking" in purely functional terms, without explaining how the blocking is accomplished. The claim and the specification are devoid of any details regarding implementation that might "add a degree of particularity." *Ultramercial*, 772 F.3d at 715. The claim does not even indicate when the blocking steps occur in relation to the other five steps in Representative Claim 1.

Meanwhile, Plaintiff acknowledges, as it must, that the Patents-in-Suit did not invent communication blocking, and that other methods of blocking communication exist. "[T]he concept of screening messages is a basic, long-practiced concept in any communications medium or field." *Intellectual Ventures I LLC v. AT & T Mobility LLC*, 235 F. Supp. 3d 577, 594 (D. Del. 2016) (internal quotation marks and alterations omitted). Indeed, as with Representative Claim 1, there is a direct brick-and-mortar analogy to the instant claim. As the Federal Circuit put it in *Intellectual Ventures I LLC v. Symantec Corp.*, "it was long-prevalent practice for people receiving paper mail to look at an envelope and discard certain letters, without opening them, from sources from which they did not wish to receive mail based on characteristics of the mail." 838 F.3d at 1314. The *Symantec* court analogized this practice to a claim directed to "characterizing" and "filtering" "e-mail based on a known list of identifiers," and so found the claim to be abstract. Characterizing a communication based on generic "blocking information" is no less abstract. After all, "filtering" out undesirable messages is the email equivalent of "blocking" undesirable communications.

Nonetheless, as discussed at length above, Plaintiff contends the Patents-in-Suit are not abstract because they are directed to four improvements to communication routing technology: (1) "user-specific handling," (2) "transparent routing," (3) "resiliency," and (4) "communication

blocking." *See supra* Part III.B.1.c. The Court rejected the first three improvements but reserved its discussion of "communication blocking" for Representative Claim 26—the only representative claim that recites communication blocking. The Court now considers whether Representative Claim 26 is directed to an improvement in communication blocking technology.

In Plaintiff's view, the particular blocking method disclosed by Representative Claim 26 has three benefits: (1) "using caller-specific attributes associated with a caller's profile for determining, in a caller-specific manner, whether or not initiation of a communication is permitted"; (2) "using caller-specific profile attributes to establish whether an attempted communication is valid"; and (3) "by supporting selective blocking . . . without interrupting the callee or the caller making an explicit choice." Pl. Opp. at 12; *see also* FAC ¶ 38. The Court does not agree.

At the outset, the Court discerns no difference between the first and second benefits, both of which refer to a "caller-specific" determination whether to route or block the communication. As already established, a caller's "profile" is just a collection of "attributes." *See* '002 Patent at 37:41-45. The Court therefore analyzes them together rather than treating them as distinct benefits. In any event, Representative Claim 26 does not disclose "using *caller*-specific attributes associated with a caller's profile" or "using *caller*-specific profile attributes," to determine whether to block a call. Rather, Representative Claim 26 calls for searching a database for "communication blocking information *associated with the second participant*"—the callee. Put in plain language, the claimed method involves looking at criteria identifying calls that *the second participant* wishes to block and blocks the call if the first participant is identified. This makes sense: There would be no need to examine communication blocking information associated with the first participant, who initiated the call. It cannot be said, then, that the claimed method is directed at "using caller-specific attributes" to make the blocking decision.

To the extent Plaintiff means to argue that Representative Claim 26 permits the second participant to identify specific callers (as opposed to, for instance, blocking all calls for a certain period of time) that the second participant wishes to block, the argument still fails. As the Court

has repeatedly recognized, a claim is not directed to an alleged improvement in technology unless the claim discloses *how* to achieve the alleged improvement. *See supra* Part III.B.1.c. Representative Claim 26 broadly claims accessing "blocking information associated with the second participant" and "blocking the communication when the communication blocking information identifies the first participant identifier." The claim provides no details about the "blocking information"—for instance, how the information is generated, what form the information takes, or what kind of rules the information is capable of capturing. Under these circumstances, Representative Claim 26 attempts to patent the abstract idea of the improvement; the claim does not actually disclose how to achieve it. *See Intellectual Ventures I LLC v. AT&T Mobility LLC*, 235 F. Supp. 3d at 594 (claim directed to the idea of screening SMS messages is directed to an abstract idea because "the claimed method can be directly analogized to the abstract concept performed in the human mind—receiving, analyzing, and making a decision as to whether to forward a message based on set criteria").

Finally, the third benefit—"supporting selective blocking without interrupting the callee or the caller making an explicit choice"—is simply a restatement of "transparent routing," which the Court analyzed in connection with Representative Claim 1. *See supra* Part III.B.1.c. Here, as there, the Court accepts Plaintiff's allegation that prior blocking methods did not provide this benefit. However, "[b]locking a message based on predetermined criteria . . . could be analogously performed by a human, instead of by a computer." *See Intellectual Ventures I LLC v. AT&T Mobility LLC*, 235 F. Supp. 3d at 594. For instance, an individual's assistant could be instructed to decline calls by certain pre-identified callers. The benefit therefore arises entirely from automation of a manual process using generic computer components, which "does not constitute a patentable improvement in computer technology." *Credit Acceptance Corp.*, 859 F.3d at 1055.

For these reasons, the Court concludes that Representative Claim 26 is directed to the abstract idea of routing a communication based on characteristics of the participants, where routing may include blocking the communication.

c. Representative Claim 21

Last, Representative Claim 21, which is claim 21 of the '762 Patent, discloses a method of "routing a communication" between a first participant and a second participant by (1) receiving identifiers associated with the first and second participants when a communication is initiated, (2) searching a database using the first participant identifier and locating a collection of attributes associated with the first participant, (3) applying "network classification criteria" to the second participant identifier and one or more of the first participant attributes and, (4)(a) if a "first network classification criterion" is met, producing a routing message that causes the communication to be established within the system, (4)(b) if a "second network classification criterion" is met, producing a routing message that causes the communication to be established through a gateway to an external network, or (4)(c) if a "third network classification criterion" is met, producing an "error message" and preventing the communication from being established. The Court finds that Representative Claim 21 is also directed to the abstract idea of routing a communication based on characteristics of the participants.

The Court first notes that Representative Claim 21 is substantially similar to Representative Claim 1 in all respects but one: Representative Claim 21 recites an "error message" at step (4)(c). Despite some slight differences in wording, the rest of the claim discloses the same steps as Representative Claim 1. Steps (1) and (2) of Representative Claim 21 are, on their face, the same as steps (1) and (2) of Representative Claim 1. Steps (3)(a) and (3)(b) then simply consolidate steps (3) and (4) of Representative Claim 1. Representative Claim 1 separately recites processing the second participant identifier using one or more of the first participant's attributes (step (3) of Representative Claim 1) and then classifying the new second participant identifier (step (4) of Representative Claim 1). Representative Claim 21 directly recites classifying the combination of the second participant identifier and one or more of the first participant's attributes. '762 Patent at 39:61-63. Importantly, Representative Claim 21 does not use different information or a different technique to classify the communication. The claim uses the same second participant identifier, first participant attributes, and generic "classification criteria." Steps

(4)(a)-(b) of Representative Claim 21 are then equivalent to step (5) of Representative Claim 1.

The Court therefore focuses on step (4)(c), which embodies the only meaningful difference between Representative Claims 1 and 21. The principal limitation that Representative Claim 21 adds to the basic process recited by Representative Claim 1 is that, when a certain criterion is met, an "error message" is produced instead of a "routing message" and the communication is thereby "prevent[ed]" "from being established." The problem is that this limitation is written in such broad, functional terms as to cover the entire abstract idea of producing an error message. The "error message" itself is undefined in the '762 Patent, which suggests that it simply signifies a generic "message that indicates an error." In addition, the claim does not give any content to the third "network classification criterion." '762 Patent at 40:11. Applying an unspecified criterion is the height of abstraction. The specification suggests that one example criterion might be when "the maximum number of concurrent calls has been reached and no further calls can exist concurrently," '762 Patent at 20:22-29, but the claim itself is not confined to this situation. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (courts should "avoid importing limitations from the specification into the claims"). The "important inquiry for a § 101 analysis is to look to the claim," rather than "the specification's detailed . . . implementation guidelines." *Accenture Glob. Servs.*, 728 F.3d at 1345 (Fed. Cir. 2013); *see also ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019) ("[R]eliance on the specification must always yield to the claim language . . . ."). We are therefore left with the abstract idea that, under certain unspecified circumstances, an "error message" is produced, and the communication is not established.

The combination of multiple abstract ideas is still abstract. *RecogniCorp*, 855 F.3d at 1327. Ultimately, then, Representative Claim 21 is directed to the abstract idea of routing a communication based on characteristics of the participants, where routing may include preventing the communication from being established.

C. *Alice* Step Two: The Asserted Claims Do Not Recite an Inventive Concept

To briefly review, the Court's *Alice* Step One analysis revealed that all of the

representative claims—and thus, all of the asserted claims—are directed to an abstract idea. The asserted claims may still be patent-eligible, though, if they include an "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more" than a patent upon the abstract idea itself. *Alice*, 573 U.S. at 217-18. Hence, Step Two of the *Alice* inquiry is a search for an inventive concept "sufficient to transform the nature of the claim into a patent-eligible application." *Id.* at 221 (internal quotation marks omitted).

Below, the Court begins its Step Two inquiry with Representative Claim 1 and then proceeds to consider each of the other representative claims in turn.

1. Representative Claim 1 Does Not Recite an Inventive Concept

At *Alice* Step One, the Court determined that Claim 1 is directed to the idea of routing a communication over an IP-based communication system based on characteristics of the participants. "To save the patent at step two, an inventive concept must be evident in the claims." *RecogniCorp*, 855 F.3d at 1327. In assessing whether a claim recites an inventive concept, the Court must consider its elements "both individually and as an ordered combination." *Alice*, 573 U.S. at 217. Accordingly, the Court first analyzes the individual claim elements of Representative Claim 1 and then turns to the ordered combination of those elements. The Court concludes that neither the individual elements nor their ordered combination supplies an inventive concept necessary for patent-eligibility.

a. The Individual Claim Elements Do Not Provide an Inventive Concept

In order to supply an inventive concept, a claim element "must be more than well-understood, routine, conventional activity," *DIRECTV*, 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 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. On the other hand, "conventional steps, specified at a high level of generality, [are] not enough to supply an inventive concept." *Alice*, 573 U.S. at 222 (internal quotation marks omitted). Nor are "generic computer, network and Internet components"

inventive. *BASCOM*, 827 F.3d at 1349. Yet, as set forth below, conventional steps and generic computer components are all that Representative Claim 1 attempts to monopolize. The Court therefore finds no saving inventive concept in the individual elements of Representative Claim 1.

At no point does Plaintiff affirmatively argue that any individual component is inventive. Instead, Plaintiff accuses Defendants of simply asserting "that all the claimed features are part of 'conventional telephony systems,' without a shred of evidence." Pl. Opp. at 22. But the fact that these claim elements are conventional can be discerned from the patent itself—no outside evidence is needed.

First, all of the computing hardware disclosed is conventional. The claim employs a "first participant device" and a "second participant device" and a "controller comprising at least one processor." The specification indicates that the "first participant device" and "second participant device" are "telephone[s]/videophone[s]." *See* '002 Patent at 14:8, 14:51-54, 15:11-12. The first participant device is "Internet-connected," meaning it is an IP telephone/videophone. As for the unspecified "controller," the Court previously observed that the unspecified controller is a module implemented on a generic computer, and that it comprises a generic processor. *See supra* Part III.B.1.c. The Patents-in-Suit certainly did not invent computers, processors, telephones/videophones, or IP telephones/videophones, and Plaintiff does not assert that otherwise. *See In re TLI Commc'ns*, 823 F.3d at 612 ("The specification does not describe a new telephone, a new server, or a new physical combination of the two."); *BASCOM*, 827 F.3d 1341, 1349 (Fed. Cir. 2016) ("BASCOM does not assert that it invented local computers, ISP servers, networks, network accounts, or filtering. Nor does the specification describe those elements as inventive."). These components "simply provide[] the environment in which the abstract idea" of call routing "is carried out." *In re TLI Commc'ns*, 823 F.3d at 614.

The network structures recited by the claim are similarly well-known. The claim references: "an Internet protocol (IP) network"; an "Internet address"; "identifiers"; a "database"; "a gateway"; and a "routing message." Again, not a "shred" of outside "evidence," Pl. Opp. at 22, is needed to demonstrate that these are conventional aspects of IP-based telephony. The Court has

already recognized multiple times that Plaintiff freely concedes the preexistence of IP-based communication systems. The specification itself reveals that each of the recited structures are inherent in an IP-based communication system.

For example, the Patents-in-Suit did not invent "IP networks," which the specification defines as "the public Internet or a private network of a large organization." '002 Patent at 1:24-27. The same is true of generic "Internet addresses" and "identifiers"—the latter of which are ordinarily telephone numbers or usernames. *See supra* Part III.B.1.a. Next, per the Court's earlier finding, neither the claim nor the specification discloses the creation of the "database." Instead, the database is some undefined, preexisting collection of "user profiles," which are themselves generic. The "gateway" is likewise undefined: it is nothing more than a placeholder for the structure "through which the call or audio path of the call will be carried" from the private network to an external network. Finally, a "routing message" is defined tautologically as containing an "Internet address" that "causes" the communication to be established. "Such vague, functional descriptions" of computer and network components "are insufficient to transform the abstract idea into a patent-eligible invention." *In re TLI Commc'ns*, 823 F.3d at 615; *see also Mortg. Grader*, 811 F.3d at 1324–25 ("[T]he claims 'add' only generic computer components such as an 'interface,' 'network,' and 'database.' These generic computer components do not satisfy the inventive concept requirement.").

Furthermore, none of the five steps in the claimed method enlists the computing elements to do anything other than operate in their expected manner. A claim in which "the recited physical components behave exactly as expected according to their ordinary use" is not inventive. *In re TLI Commc'ns*, 823 F.3d at 615. In *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014), for example, the Federal Circuit gave the following explanation for its finding that the claim's use of computers was not inventive:

> The computer functionality is generic—indeed, quite limited: a computer receives a request for a guarantee and transmits an offer of guarantee in return. There is no further detail. That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.

Id. at 1355. Similarly, in *Two-Way Media*, the Federal Circuit found no inventive concept because "[n]othing in the claims or their constructions, including the use of "intermediate computers," requires anything other than conventional computer and network components operating according to their ordinary functions." 874 F.3d at 1339.

Here, under Representative Claim 1, the "controller comprising at least one processor" (1) *receives* the first and second participant identifiers, (2) *accesses* a database "using" the first participant identifier and *locates* a collection of attributes associated with the first participant, (3) *processes* the second participant identifier, (4) *classifies* the communication as a "system communication" or an "external network communication" "based on" the new (i.e., processed) second participant identifier, and (5) *produces* a routing message that causes the communication to be established. Any generic computer equipped with a generic processor routinely performs the tasks of "receiving" data, "accessing" a database, and searching the database to "locate" certain information. A generic processor is also, of course, capable of "processing" and "classifying" information, particularly as the specification does not disclose what the "processing" or "classifying" entails. *See supra* Part III.B.1.a. Lastly, there is no suggestion that "producing" a routing message requires any special functionality. After all, the routing message simply displays an Internet address in a format readable by an IP-based communication system. Hence, none of the functions recited in Representative Claim 1 provides an inventive concept.

The Court briefly addresses Plaintiff's remaining argument, on which Plaintiff spends scarcely a page in its brief. Plaintiff claims that Defendants "stripp[ed] out elements to oversimplify the claim," and that Defendants "do not do justice to the full scope of the patent's disclosure." Pl. Opp. 22. But Plaintiff makes no attempt to identify any allegedly unconventional element that Defendants allegedly "stripped out." The only specific complaint Plaintiff raises is that "Defendants spend no time analyzing the detailed processes shown in Figs. 8A-8D." *Id.* Figures 8A to 8D depict flowcharts for directing the controller to produce a routing message. '002 Patent at 11:26-28; 18:24-25. Having reviewed the flowcharts, the Court determines that they too contain only the conventional, generic steps of "getting" data, "storing" data, "loading" data, and

"sending" data. That the data involved are specific to the communications context is insufficient to make the process inventive. "Just as steps that do nothing more than spell out what it means to 'apply it on a computer' cannot confer patent-eligibility, here, steps that generically spell out what it means to 'apply it on a telephone network' also cannot confer patent eligibility." *See In re TLI Commc'ns*, 823 F.3d at 615 (internal quotation marks omitted). Although the flowcharts may be "detailed," Pl. Opp. 22, "the level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method," *Accenture Glob. Servs.*, 728 F.3d at 1345. The Court, moreover, has analyzed every aspect of the claim and nonetheless finds no transformative element that supplies an inventive concept.

b. The Ordered Combination of Claim Elements Does Not Provide an Inventive Concept

Lacking an inventive concept in any of the individual elements of Representative Claim 1, Plaintiff contends the ordered combination of elements amounts to an inventive concept. In so doing, Plaintiff relies heavily upon *BASCOM*, in which 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.

Even when viewed collectively, however, the claim steps "simply instruct the practitioner to implement the abstract idea"—i.e., routing a communication based on characteristics of the participants—"with routine conventional activity." *Ultramercial*, 772 F.3d at 715. Representative Claim 1 uses a conventional ordering of steps—first receiving the identifiers, then processing them, then using the results in some unspecified way to produce the routing message—implemented on generic technology. These are "the most basic of steps in data collection, analysis, and publication and they are recited in the ordinary order." *EasyWeb Innovations, LLC v. Twitter, Inc.*, 689 F. App'x 969, 971 (Fed. Cir. 2017). Once again, the Court uses *Two-Way Media* as a comparator. In *Two-Way Media*, the claim at issue was directed to "transmitting message packets over a communications network." 874 F.3d at 1334. The Federal Circuit found no inventive concept because the claim recited a "conventional ordering" of the steps of "first

processing the data, then routing it, controlling it, and monitoring its reception." 874 F.3d at 1339. Similarly, in *In re Villena*, the Federal Circuit concluded that a claim reciting the "basic steps of receiving user input, producing property valuations, and providing display information" did not contain an inventive concept. 745 F. App'x 374, 376 (Fed. Cir. 2018), *cert. denied sub nom. Villena v. Iancu*, 139 S. Ct. 2694 (2019).

Plaintiff nonetheless gives three reasons why the ordered combination is inventive—none of which is persuasive. First, Plaintiff reiterates that the claim "as a whole" overcomes various "limitations" of prior communication technology. *See* Pl. Opp. at 22. Plaintiff further contends that the Court must accept Plaintiff's assertion that the invention's solution to these limitations is "unconventional," because whether a claim limitation is conventional is a "factual issue." *Id.* The briefing does not specify precisely which "limitations" the claimed method overcomes. Construing Plaintiff's briefing liberally, however, the Court takes the argument to be a reference to the four improvements of (1) "user-specific handling," (2) "transparent routing," (3) "resiliency," and (4) "communication blocking." However, the Court has considered, and rejected, these improvements in connection with its analysis of the first step of the *Alice* framework. *See supra* Section III.A.1.c. As discussed at length above, the claims do not provide any specific method of implementation or otherwise explain how to achieve any of the four improvements. Hence, these improvements cannot provide an inventive concept because they "simply restate[] what we have already determined is an abstract idea." *BSG Tech LLC*, 899 F.3d at 1290. As the Federal Circuit has emphasized, "a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept." *Id.* at 1291.

Second, Plaintiff contends that Representative Claim 1 is inventive because it recites "[u]ser-specific customization of network functionality"—that is, "applying criteria from a caller's profile settings, to make a caller-specific determination as to whether an initiated communication is destined for a first network, a second external network, or is invalid according to this caller's profile settings"—is inventive. Pl. Opp. at 23. This, however, is the same thing as "user-specific

handling," which the Court has just rejected as an inventive concept. The Court dismisses Plaintiff's attempt to costume this argument in new garb.

Last, Plaintiff contends that "[t]he claims solve problems necessarily rooted in network technology and so are eligible for the same reasons that the claims in *DDR Holdings* were found eligible by the Federal Circuit." Pl. Opp. at 24 (emphasis in original) (citing *DDR Holdings*, 773 F.3d at 1245, 1257). It is true that *DDR Holdings* involved claims that address "a challenge particular to the Internet," that is, "retaining website visitors." 773 F.3d at 1256. However, the *DDR Holdings* court did not hold that claims that "solve problems necessarily rooted in network technology" are per se patent-eligible. On the contrary, the Federal Circuit "caution[ed]" "that not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1258. As the Federal Circuit explained, the claims in *DDR Holdings* "stand apart" from many other computer-implemented claims "because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet." *Id.* at 1257. In this critical respect, the instant case is wholly unlike *DDR Holdings*. Here we have a claim that, as just discussed, does "merely recite the performance" of a practice "known from the pre-Internet world"—*viz.*, call routing—along with the generic computer components necessary to perform it on an Internet-based communication system. Those computer components carry out routine steps using generic elements (e.g., identifiers, user profiles, databases) that the patent does not invent. Having failed to specifically rebut these findings, Plaintiff's cursory appeal to *DDR Holdings* has no merit.

Accordingly, the ordered combination of the elements in Representative Claim 1 does not supply an inventive concept.

c. Preemption

Plaintiff's final argument under *Alice* Step Two is that "the claims do not preempt an abstract idea because they recite a particular method of evaluating a callee identifier to determine and route to the intended destination, as between two networks. Other routing methods are available to all." Pl. Opp. at 23.

The Federal Circuit has "previously considered preemption in both steps one and two of the *Alice* test." *Intellectual Ventures I LLC v. Erie Indem. Co.*, 711 F. App'x 1012, 1019 (Fed. Cir. 2017). It is also true that courts have sometimes discussed the Step Two analysis in terms of preemption. *See, e.g.*, *DDR Holdings*, 773 F.3d at 1259 (finding the patent valid only after finding that "the claims at issue do not attempt to preempt every application of the idea" embodied in the patent). Nevertheless, Plaintiff's argument "misunderstands the step two inquiry." *BSG Tech LLC*, 899 F.3d at 1291. The Federal Circuit has made clear that claims are not patent eligible merely because they do not preempt an entire field. *FairWarning*, 839 F.3d at 1098 ("[W]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility."); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) ("And that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract."). In other words, a claim is not excused from the need to make an inventive contribution on top of the underlying abstract idea simply because its application of the abstract idea is narrow. Hence, where a court has deemed a claim to disclose only patent-ineligible subject matter under the *Alice* framework—as the Court has in the instant case—"preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (alterations in original). Consequently, Plaintiff's perfunctory preemption argument is unavailing.

d. Summary

Thus, having determined that Representative Claim 1 is directed to the abstract idea of routing a communication based on characteristics of the participants, the Court now concludes that none of the elements of the claim—either in isolation or combination—amounts to an inventive concept. Therefore, because it is drawn to no more than an abstract idea, Representative Claim 1 fails to meet the standard for patent eligibility under § 101.

2. The Remaining Representative Claims Do Not Recite an Inventive Concept

Turning to the remaining representative claims, the Court considers whether those claims'

additional limitations contain an inventive concept, even though Representative Claim 1 did not. The Court finds no such inventive concept in Representative Claim 9, 26, or 21.

To briefly summarize the Court's Step One analysis, the Court found that, like Representative Claim 1, Representative Claim 9 is directed to the abstract idea of routing a communication based on characteristics of the participants. The Court then found that Representative Claim 26 is directed to the abstract idea of routing a communication based on characteristics of the participants, where routing may include blocking the communication. Last, the Court found that Representative Claim 21 is directed to the abstract idea of routing a communication based on characteristics of the participants, where routing may include preventing a communication from being established. At *Alice* Step Two, "the relevant inquiry is not whether the claimed invention as a whole is unconventional or non-routine." *BSG Tech LLC*, 899 F.3d at 1290. Rather, the Court assesses only "whether the claim limitations other than the invention's use of the ineligible concept to which it was directed" are inventive. *Id.* Here, Representative Claim 9 has the additional limitation that the communication is classified as a "system communication" or an "external network communication" based upon whether a profile associated with the new second participant identifier exists in a database; Representative Claim 26 has the additional element that the communication is "blocked" under certain circumstances; and Representative Claim 21 has the additional limitation that an "error message" is triggered under certain circumstances. The Court now considers whether these additional elements—either individually or in combination with the basic method recited by Representative Claim 1—transform the asserted claims into patentable inventions.

The answer is no. There is nothing in the three representative claims beyond purely functional language describing the abstract result, *viz.*, "classifying" the communication, "blocking" the communication, and producing an "error message." The "claim language does not explain what is inventive about the . . . feature or explain how it is accomplished." *Move, Inc. v. Real Estate All. Ltd.*, 721 F. App'x 950, 957 (Fed. Cir.), *cert. denied*, 139 S. Ct. 457 (2018). Nor is there any indication in the claims or the specification that the additional limitations require

anything other than conventional computer equipment, performing their ordinary functions. *See Reese v. Sprint Nextel Corp.*, 774 F. App'x 656, 661 (Fed. Cir. 2019) ("Nothing in the claims requires anything other than conventional telephone network equipment to perform the generic functions of receiving and sending information."). On the contrary, the claims disclose that the additional limitations are performed by the same generic "controller" that carries out the method disclosed by Representative Claim 1, which the Court previously determined not to be inventive.

Moreover, Plaintiff has not separately identified an inventive concept in Representative Claims 9, 21, or 26. The Court therefore need not labor any further to find one. *See BSG Tech LLC*, 899 F.3d at 1291 ("BSG Tech does not argue that other, non-abstract features of the claimed inventions, alone or in combination, are not well-understood, routine and conventional database structures and activities."); *Shakur v. Schriro*, 514 F.3d 878, 892 (9th Cir. 2008) (litigants waive arguments by failing to raise them in an opposition to a motion to dismiss).

Accordingly, Representative Claims 9, 21, or 26 do not recite patent-eligible subject matter under § 101.

D. Defendants' Consolidated Motion to Dismiss is Not Premature

Plaintiff argues in the alternative that Defendant's motion is premature because, if provided the opportunity to engage in discovery, Plaintiff would prove "that the recited invention provides specific technological improvements." *Id.* at 25. The Court rejects this argument. The ultimate question whether a claim recites patent-eligible subject matter under § 101 is a question of law. *Capital One Fin. Corp.*, 850 F.3d at 1338. It is true that, under the Federal Circuit's recent case law, "whether a claim limitation or combination of limitations is well-understood, routine, and conventional is a factual question." *BSG Tech LLC*, 899 F.3d at 1290. However, factual evidence is only relevant if "the only issue" is "whether claim limitations are well-understood, routine, and conventional." *Id.* If, however, "the evidence that aspects of the invention are not well-understood, routine, and conventional does not pertain to the invention as claimed, it will not create a factual dispute as to these claims." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1357 (Fed. Cir. 2018) (concurring in the denial of rehearing

en banc).

In the instant case, the Court accepted as true Plaintiff's allegations that (1) user-specific handling, (2) transparent routing, (3) resiliency, and (4) communication blocking are significant and unconventional improvements upon prior technology. The Court nevertheless rejected these improvements on the ground that the Patents-in-Suit did not disclose how to achieve them. To reiterate, the *Alice* inquiry "must turn to any requirements for *how* the desired result is achieved." *Two-Way Media*, 874 F.3d at 1339 (rejecting Two-Way Media's assertion that "the claim solves various technical problems, including excessive loads on a source server, network congestion, unwelcome variations in delivery times, scalability of networks, and lack of precise recordkeeping") (emphasis in original). Because neither the claims nor the specification provided the critical "how," the improvements are not attributable to the invention as claimed. *See, e.g., Accenture Global Servs.*, 728 F.3d at 1345 ("[T]he important inquiry for a § 101 analysis is to look to the claims."). At bottom, then, the validity of the Patents-in-Suit does not turn on the factual issue of whether the alleged improvements are "well-understood, routine, and conventional." *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018) ("As our cases demonstrate, not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry."). As a consequence, Plaintiff's "proffer of evidence" is orthogonal to the *Alice* inquiry and Defendants' motion is not premature.

IV. CONCLUSION

For the foregoing reasons, the Court finds that all of the asserted claims are invalid for failure to state patentable subject matter under § 101. The Court therefore GRANTS Defendants' consolidated motion to dismiss with prejudice.

IT IS SO ORDERED.

Dated: November 1, 2019

Lucy H. Koh

LUCY H. KOH
United States District Judge