

2019-1808; -1812; -1813; -1814

**United States Court of Appeals
for the Federal Circuit**

VOIP-PAL.COM, INC.,

Plaintiff-Appellant,

– v. –

TWITTER, INC.,

Defendant-Appellee.

(For Continuation of Caption See Inside Cover)

*On Appeal from the United States District Court for
the Northern District of California in Nos. 5:18-cv-04523-LHK,
5:18-cv-06054-LHK, 5:18-cv-06177-LHK and 5:18-cv-06217-LHK*

OPENING BRIEF FOR PLAINTIFF-APPELLANT

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JUNE 25, 2019

VOIP-PAL.COM, INC.,

Plaintiff-Appellant,

– v. –

CELLCO PARTNERSHIP, dba Verizon Wireless Services LLC,

Defendant-Appellee.

VOIP-PAL.COM, INC.,

Plaintiff-Appellant,

– v. –

AT&T CORP.,

Defendant-Appellee.

VOIP-PAL.COM, INC.,

Plaintiff-Appellant,

– v. –

APPLE, INC.,

Defendant-Appellee.

CERTIFICATE OF INTEREST

Counsel for the Appellant, VoIP-Pal.com, Inc., certifies the following:

1. The full name of every party or amicus represented by me is:

VoIP-Pal.com, Inc.

2. The name of the real party in interest (if the party names in the caption is not the real party in interest) represented by me is:

None

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

Kevin N. Malek, Malek Moss PLLC
David Kaminski and Grace Felipe of Carlson & Messer LLP, Los Angeles, California
Kurt Bonds and Adam Knecht of Alverson Taylor Morteson and Sanders LLP, Las Vegas, Nevada

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal.

Apple Inc. v. Voip-Pal.com, Inc., Appeal No. 18-1456, U.S. Court of Appeals for the Federal Circuit

June 25, 2019

/s/ Kevin N. Malek
Kevin N. Malek
Counsel for Appellant

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STATEMENT OF RELATED CASES PER FEDERAL CIRCUIT RULE 47.5

An appeal taken by Defendant Apple, Inc. is currently pending in this Court from a final written decision by the Patent Trial and Appeal Board in favor of Plaintiff VoIP-Pal.com, Inc., finding that Apple, Inc. did not show by a preponderance of evidence that the two patents that are the subject of this appeal are invalid. The related case, *Apple Inc. v. Voip-Pal.com, Inc.*, Appeal No. 18-1456, would directly affect or be directly affected by this Court's decision in this appeal.

JURISDICTIONAL STATEMENT

This appeal arises from decision(s) of the U.S. District Court for the Northern District of California. The district court had jurisdiction under 28 U.S.C. §§1331 and 1338(a). The district court granted defendants motion to dismiss on March 25, 2019 and entered final judgment on March 25, 2019. Plaintiff timely filed a notice of appeal on April 23, 2019. This Court has jurisdiction under 28 U.S.C. §1295.

ISSUES PRESENTED

Whether the district court erred in holding the asserted claims ineligible as abstract ideas under 35 U.S.C. §101?

Whether the district court erred in holding the claimed method and process for automatically routing telephone calls and other communications in a multi-

network environment using a physical controller covers “abstract ideas” that are not patent eligible under 35 U.S.C. §101?

STATEMENT OF THE CASE

In 2016, VoIP-Pal.com, Inc. (“VoIP-Pal”), commenced the instant actions under 35 U.S.C. § 271, alleging that defendants infringe U.S. Patent Nos. 8,542,815 (“the ’815 Patent”) and 9,179,005 (“the ’005 Patent” and together with the ’815 Patent, the “Patents-in-Suit”). APPX2. The cases were originally filed in the United States District Court for the District of Nevada. APPX13,14. The cases were stayed pending decisions by the Patent Trial and Appeal Board (“PTAB”) on whether to institute *inter partes review* (“IPR”) on the Patents-in-Suit based on petitions filed by defendant Apple, Inc., defendant AT&T Corp. and others (the “IPR Petitions”). APPX444. On November 21, 2016, the PTAB instituted IPR on all asserted claims of the Patents-in-Suit. APPX444. The cases remained subject to a stay pending final written decisions by the PTAB in the pending IPR proceedings. *Id.*

On November 20, 2017, the PTAB issued final written decisions determining that Apple did not show that the claims were invalid. APPX444. Additionally, the PTAB denied institution of IPRs for five other petitions filed against the Patents-in-Suit, namely, three IPR petitions filed by AT&T (IPR2017-01382, IPR2017-01383, and IPR2017-01384), and two follow-on petitions filed by Apple (IPR2017-01398 and IPR2017- 01399). APPX444.

Subsequently, the actions were ultimately transferred to and consolidated in the U.S. District Court for the Northern District of California. APPX758. On January 10, 2019, all defendants moved for dismissal under Fed. R. Civ. P. 12(b)(6), urging that the asserted claims were directed to patent-ineligible subject matter under 35 U.S.C. §101. On March 25, 2019, the district court granted defendants' motion(s). APPX5-49.

STATEMENT OF FACTS

The Patents-in-Suit are directed to the field of voice over internet telephone calls, messages and other communications and more specifically to communication routing technology used to facilitate such communications. APPX1038 (Third Amended Complaint) at ¶ 30. They teach methods and systems, embodied in computer and network technology, allowing for a telephone call, message or other communication to be routed between physical gateways of multiple but disparate networks. The Patents-in-Suit are distinctly novel and have withstood numerous *Inter Partes Review* validity challenges by accused infringers such as Defendant Apple, Inc. and Defendant AT&T Corp. APPX12-13, APPX1305. Figure 1 of the '815 Patent illustrates the specific technological environment embodied in the claimed inventions:

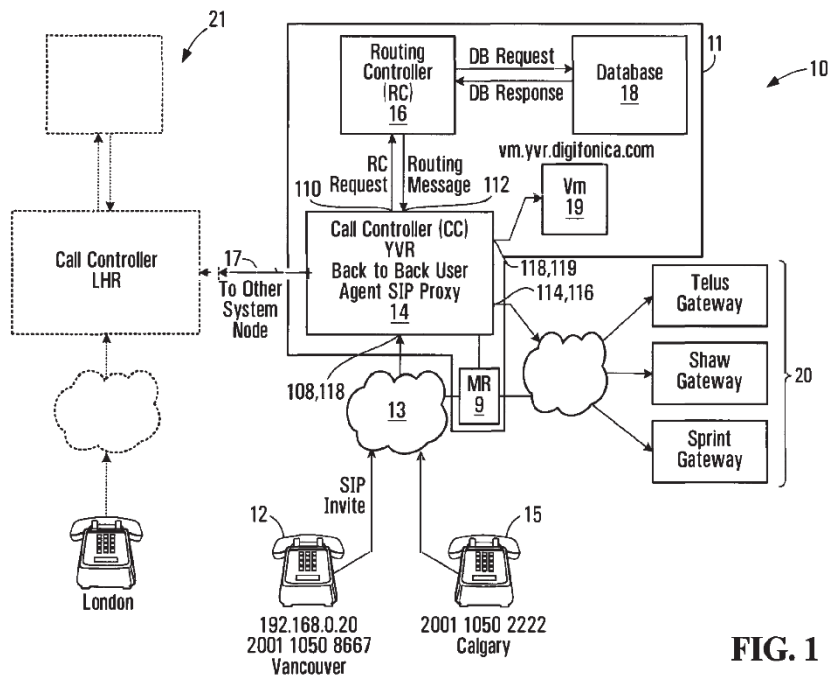


FIG. 1

As is evident in Figure 1 above – that illustrates the environment of the invention required to make a phone call between London and Vancouver – the claimed inventions facilitate a phone call or other means of communication (12 and 15) within a multi-layered network whereby calls are routed by a physical controller (16) to physical gateways (20) and destination internet protocol addresses (12). APPX118,154 (‘815 Patent)¹.

¹ Due to the fact that the ‘005 Patent was a continuation of the ‘815 Patent, the figures and written description of the Patents-in-Suit are largely identical. Accordingly, citations herein to the written description and figures of the ‘815 Patent are equally probative as to the same elements of the ‘005 Patent.

I. The Field of the Invention: Communications Routing Technology.

The Patents-in-Suit represent fundamental advancements from general analog telephony that existed throughout the 1900s to Internet Protocol (“IP”) based communication, including transmission of video, photographs, messages and mixed media. APPX1030 (Third Amended Complaint) at ¶ 7. The benefits of the patented invention include, amongst other features, improved functioning, routing and reliability or voice and media communications. *Id.*

The patented methods and systems start with the initiation of a communication, such as a phone call, in a system characterized by a complex and multi-layer network of gateways, nodes and supernodes. APPX118,154 (‘815 Patent).

A. Background Principles of Communications-Routing Technology

1. The Distinctions Between Public and Private Networks

By the early 2000s, there existed different types of networks referred to as public or private networks. APPX1030 (Third Amended Complaint) at ¶ 8; APPX1031 at ¶ 9. The public network, or public switched telephone network, referred to by the acronym “PSTN,” connects callers through nodes such as central offices or exchanges that are generally available to the broader public. APPX1030 (Third Amended Complaint) at ¶ 8. However, because these nodes are limited to providing services only to users in a “local calling service area,” they require callers

to place calls in a specific manner, *e.g.*, by requiring the use of certain dialing patterns and conventions associated with that local area. *Id.* This is the reason that one might, for example, be required to dial an area code in order to call a destination outside of the local calling service area. APPX1030-31 (Third Amended Complaint) at ¶ 8.

Indeed, PSTN nodes required PSTN callers to dial in a manner compatible with a local numbering plan as well as to dial in a manner compatible with international standards such as those of the International Telecommunications Union (ITU) Telecommunications Standardization Sector (ITU-T). APPX1030 (Third Amended Complaint) at ¶ 8; A158 ('815 Patent) at 18:23-34. And it is known in the field of telephony that early numbering plans assigned an “area code” of 312 for calling Illinois. APPX1030-31 (Third Amended Complaint) at ¶ 8. Accordingly, calls made over the PSTN from distant locations to Chicago or internationally use area codes or country codes. *Id.*; APPX128 ('815 Patent) at Fig. 12 (“Country Code” attribute for London user is “44”).

Large organizations were able to avoid these PSTN dialing constraints by using a private network internally without their organization, such as a private branch exchange or PBX. APPX1031 (Third Amended Complaint) at ¶ 9. The private network allowed the use of private numbering plans for an organization’s internal private telephone network. *Id.* However, the organization also needed to provide a caller access to the public network so that calls could be placed to destinations not

within the private network itself. *Id.*; APPX150 ('815 Patent) 1:15-26. The nature of the PBX has been explained by one commentator as follows:

Businesses which have more than a few telephones use a private branch exchange system, known as a PBX, to provide call connections between each telephone (which become 'extensions') and links into the PSTN... The PBX is really a small version of the PSTN exchanges, typically ranging in sizes from 10 up to 5,000 extensions. A private numbering scheme is required to enable extension to extension dialing, also *special codes* (e.g. 'dial 9') are required to enable calls to be made to the PSTN. [...]

APPX1031 (Third Amended Complaint) at ¶ 9; APPX150 ('815 Patent) at 1:29-35.

B. Prior-Art Methods of Routing Communications Between Networks

Due to the presence of different networks, such as the PSTN and the private PBX network, systems needed to be able to integrate and function together so that calls made on one type of network could be routed to another type of network. At the time of the inventions claimed in the Patents-in-Suit, it was well-understood, routine and conventional for PBXs to require users to dial a special code (e.g., a prefix digit of "9") if they wanted to place a call on the PSTN. APPX1031 (Third Amended Complaint) at ¶ 10. Indeed, there was a distinction made, at the time, between dialing an "internal PBX station number" and an "external number." *Id.* In the latter case, the user was required to dial an access code in order to gain access to the public switched telephone network (PSTN). *Id.* In the United States and Canada, a more common and conventional access code was nine (9), while in other countries, it was zero (0). A1031-32 (Third Amended Complaint) at ¶ 10.

II. The Patents-in-Suit: Improved Routing of Calls and Messages Over Computer Networks

On September 24, 2013, the ‘815 Patent entitled “Producing Routing Messages for Voice Over IP Communications” was duly and legally issued to Clay Perreault, Steve Nicholson, Rod Thomson, Johan Emil Viktor Bjorsell, and Fuad Arafa. A115. On November 3, 2015, the ‘005 Patent with the same title issues to the same inventors. VoIP-Pal is the owner of all rights, title, and interest in and to the ‘815 Patent and the ‘005 Patent. APPX174.

A. The Inventors and Their Insight

The patented inventions provide technical improvements that overcome the limitations of prior art communications processes and systems. APPX1030 (Third Amended Complaint) at ¶ 7. They recognize the complexities associated with conventional communications systems and dialing methods. The patented inventions alleviated those complexities by improving on the limited dialing options that were conventional at the time, such as routing a call solely based upon the dialed phone number. APPX1032-35 (Third Amended Complaint) at ¶¶ 12-16. Instead, the patented inventions allow for user specific programming, thereby creating less complex dialing options and better network stability. *Id.*

B. The Patented Technology

1. The Claims

The district court treated claim 1 of the ‘815 Patent and claim 74 of the

'005 Patent as representative claims.² Claim 1 of the '815 Patent is a process claim and recites:

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, the process comprising:

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

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

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

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

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

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

² The district court incorrectly concluded that VoIP-Pal did not challenge the designation of claim 1 of the '815 Patent and claim 74 of the '005 as representative claims. VoIP-Pal argued in its opposition and the district court separately acknowledged VoIP-Pal's contention that claim 28 of the '815 Patent, in means-plus-function format, was to be construed under 35 U.S.C. § 112 ¶ 6 using structure as disclosed in the specification of the Patents-in-Suit. In an apparent rejection of VoIP-Pal's contention, the district court maintained that claim 1 and claim 74 were representative claims. A32-33.

APPX167 ('815 Patent) 36:14-39. Claim 74 of the '005 Patent is a method claim and recites:

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

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

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

and when at least one of the first participant attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing a second network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network, the second portion not controlled by the entity.

APPX234 ('005 Patent) 43:40-65. VoIP-Pal also asserted that claim 28 of the '815 Patent - an apparatus claim in means-plus-function format - was separately distinctive for purposes of patent eligibility under 35 U.S.C. § 101. APPX168-169

(‘815 Patent) 38:53-65,39:1-12. The asserted claims³ include process, method, apparatus, and system claims. *See, e.g.*, APPX840-42; APPX1038 at ¶ 30.

2. *The Advantages and Operation of the Patented Inventions*

a. User Specific Call Handling

As noted above, many prior art communication systems required users to place a call by using a specific callee identifier format or by following certain dialing conventions. For example, as discussed above, PSTN nodes processed calls locally because they were typically limited to supporting only the dialing conventions of their local calling service area. APPX1337 (Third Amended Complaint) at ¶ 12; APPX150 (‘815 Patent) 1:29-35. These nodes did not support user-specific calling. The patented inventions overcame these technical limitations by enabling user-specific calling styles. These calling styles could be used from any continent or country based on the application of user-specific attributes to callee identifiers and network classification criteria to route a call. What is unique about the patented inventions is that it became unnecessary for the user to do anything special to “trigger” such user-specific call processing. APPX1337-38 (Third Amended Complaint) at ¶ 12; APPX157 (‘815 Patent) 15:10-15 (storing user-specific parameters including a “continent code” and “country code” in association with each

³ The asserted claims were as follows. Claims of the ‘005 Patent asserted against all Defendants: 49, 73, 74, 75, 77, 78, 83, 84, 94, 96 and 99. Claims of the ‘815 Patent asserted against all Defendants other than Twitter, Inc.: 1, 7, 12, 27,28, 72, 73, 92 and 111.

subscriber), APPX1337-38 (Third Amended Complaint) at ¶ 12; APPX158 ('815 Patent) 17:59-18:10 (disclosing a user-specific “dialing profile” capable of supporting numerous *global* styles of dialing), and APPX123-26 ('815 Patent) at Figs. 8A-8D. The technology was capable of fulfilling the individual call handling service preferences of users world-wide (APPX1337-38 (Third Amended Complaint) at ¶ 12; APPX158 ('815 Patent) 18:55-67), and could also support unconventional dialing styles or special callee identifiers such as usernames APPX1337-38 (Third Amended Complaint) at ¶ 12; APPX158 ('815 Patent) 17:14-15.

b. Routing Transparency

Some prior art communication systems required a user to explicitly signal how a call should be processed or to manually “trigger” special call handling. APPX1338 (Third Amended Complaint) at ¶ 13. For example, as discussed above, PBX systems in large organizations often relied on a user-specified classification in order to interpret the number and route the call. *Id.* This limitation was common and evidence when a user dialed a predefined prefix such as “9” in order to place a call to the PSTN. *Id.* If no prefix was dialed, the dialed digits were interpreted as a private PBX extension. *Id.* The dialed digits alone dictated how the call was routed, and thus the user made an affirmative decision when placing a call as to how the call’s routing would take place. *Id.* There was no routing transparency as the user was required to

make a threshold determination about the routing before initiating the call.

In contrast, the patented invention uses a caller's attributes to evaluate a callee identifier against network routing criteria. APPX1338 (Third Amended Complaint) at ¶ 13. In this way, the patented invention automatically caused a call to be routed over a system network (e.g., "private network") or through a gateway to another network without the user manually specifying which network to use for routing. *Id.*

To illustrate this with one embodiment disclosed in the '815 Patent, if a Vancouver user (APPX127 -user profile in Fig. 10) dialed the PSTN phone number of the London user (APPX128 -user profile in Fig. 12), the system would evaluate the dialed digits based on the caller's attributes, determine that the London user is a subscriber to the system, and classify the call as a private network call, identifying a subscriber username such as "44011062444" (see APPX124,128 ('815 Patent) at Fig. 8B, Fig. 12, APPX159,160 20:19-21:25). A routing controller (APPX118 - 16 in Fig. 1) determines that the London user is associated with a different node than the Vancouver user, and produces a routing message (APPX130 ('815 Patent) Fig. 16; *see also* APPX159 20:26-48; APPX123 Fig. 8A at 280, 302, 350, 381) for receipt by a call controller (APPX118 -Fig. 1), thereby causing the call controller to establish the call (APPX162 ('815 Patent) 26:46-49).

In contrast, the patented inventions provide reliable service to large areas including countries and continents. This gave rise to technical challenges regarding

how to handle issues such as a very large number of subscribers, bursts of excessive demand and/or communication node failure, all of which affected system reliability. The patented inventions solve these problems by flexibly assigning nodes to particular geographical areas, including the option of adding redundant nodes with overlapping responsibility for load sharing. APPX155-56 ('815 Patent) 12:50-13:2 (disclosing a private network of super nodes providing communication services to large geographical regions) and APPX156 ('815 Patent) 13:3-6 (disclosing special nodes for "call load sharing"). The technology performed call routing by identifying a suitable private network "node" or a gateway (e.g., a gateway to the PSTN) in response to evaluation of the caller's attributes, the callee identifier, and available routing resources. This design made it simple to allocate or add new nodes and gateways to particular regions (APPX155-56 at 12:50-13:6; APPX161 at 24:54-67, APPX162 at 26:46-49; APPX162 at 26:65-27:7). The use of caller attributes, callee identifier and dynamic routing criteria to produce the routing message, as described in the Patents-in-Suit, allowed such new nodes and gateways to be identified in the routing message. This increased service availability to subscribers as needed without redesigning the routing apparatus and process, thereby creating an improved, resilient and reliable *global* routing system.

III. The District Court's Decision.

On March 25, 2019, the district court granted Defendants' Motion to Dismiss under Fed. Civ. R. Proc. 12(b)(6), holding that the asserted claims are directed to unpatentable subject matter and are thus invalid under 35 U.S.C. § 101. APPX48. The district court initially acknowledged that the § 101 analysis is governed by the two-step framework the Supreme Court established in *Mayo Collaborative Services v. Prometheus Labs, Inc.*, 132 S. Ct. 1289 (2012) and *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). APPX13-14. To that end, the district court acknowledged the Supreme Court's direction and warning that all of the limitations of the claim be given effect in the analysis. APPX25. In the district court's view however, the two claims that the district court deemed representative were abstract because each claim "only discloses generalized steps to carry out generic functions, and second, because there are long-standing practices analogous to the claimed steps." APPX26,39.

A. The District Court's Overly Generic "Directed To" Analysis Eliminated Critical Limitations and Rendered Abstractness a Foregone Conclusion.

In determining what the asserted claims are directed to, the district court relied upon claim 1 of the '815 Patent and claim 74 of the '005 Patent as representative claims for all the twenty (20) asserted claims in the Patents-in-Suit, finding that the two "representative" claims were "directed to the abstract idea of routing a call based on characteristics of the caller and callee." APPX25,39. The district expanded its

directed to conclusion for claim 1 and claim 74 in what it called “plain language” that was just as general. APPX25-26,38. In neither case did the district court address the character of the representative claims *as a whole* and noticeably absent from its “directed to” analyses are numerous meaningful limitations of these claims – limitations that are necessary and critical to the claimed method (claim 1) and process (claim 74) that cannot be performed without them. Figure 1 of the Patents-in-Suit (set forth *supra* at p. 4) illustrates the significantly technological environment in which the process and method of the inventions enable phone calls and messaging. APPX118. All of those very physical components are limitations of claim 1 and claim 74 that are fundamental and necessary to the functioning of the claimed inventions.

For example, the district failed to consider that the representative claims are to a “process” and “method,” a fact that bears significance on the ultimate decision of ineligibility reached by the district court. APPX167 (‘815 Patent) 36:14-39; APPX234 (‘005 Patent) 43:40-65. Moreover, notwithstanding the presence of express claim limitations to the effect, nowhere in its “directed to” analysis did the district court acknowledge that claim 1 and claim 74 are directed to :

- a phone call or other type of communication (APPX167 (‘815 Patent-Claim 1) 36:14-20; APPX234 (‘005 Patent-Claim 74) 43:41-50);
- the production of a private network routing message to program a call controller (APPX167 (‘815 Patent-Claim 1) 36:30-39; APPX234 (‘005 Patent-Claim 74) 43:50-65);

- routing a call or other communication to a physical address on a packet switched or other technological network (*id.*);
- routing a call or other communication to a physical gateway on a packet switched or other technological network (*id.*); and
- routing calls and other communication over a technological system comprised of numerous physical nodes and gateways (APPX167 ('815 Patent-Claim 1) 36:14-17).

Notwithstanding that fact, the district court did not include any of those technological features in its directed to analysis. APPX24-26, A38-39 (Order). But the invention would not be possible without the *claimed* physical controller, the physical destination address and gateway on and to the networks and the physical nodes. (APPX167 ('815 Patent-Claim 1) 36:14-20; APPX234 ('005 Patent-Claim 74) 43:41-50). In fact, there would be no invention without them as they are necessary to the operability of the claimed process and method. Indeed, the following illustration represents a modification of Figure 1 of the Patents-in-Suit, showing - as blackened boxes - the technical features of the claimed inventions that the district court eliminated in its “directed to” analysis:

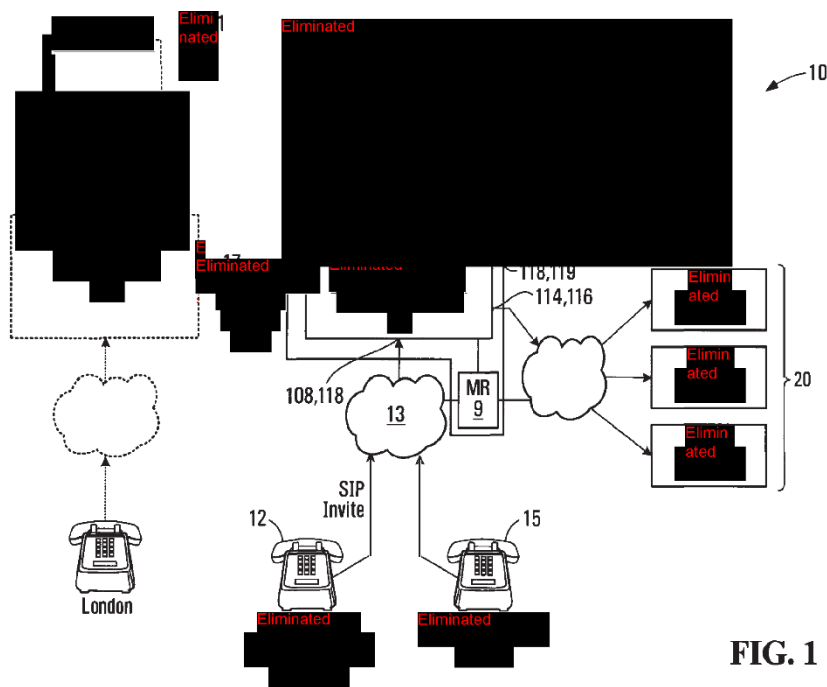


FIG. 1

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Compare APPX118 (‘815 Patent – Figure 1).

The district court analyzed whether its unduly high-level generalization of the claims – devoid of meaningful technological elements – was abstract, not whether claim 1 and claim 74 were. Ultimately, the district court concluded that the asserted claims were abstract because they “only disclose[] generalized steps to carry out generic functions, and second, because there are long-standing practices analogous to the claimed steps.” APPX26,39 (Order). In view of this truncated characterization,

the district court concluded that all of the asserted claims fail *Alice/Mayo* Step 1. APPX26,40 (Order) (emphasis in original).

B. The District Court Conflated Abstractness With Lack of Novelty, Written Description Issues and Enablement Issues.

Significant to the district court's conclusion that claims 1 and 74 are abstract was the district court's finding that various limitations of these claims are *not novel or unique* features of the claimed invention. Indeed, in its step one analysis, the district found that "the specification concedes that the invention *did not invent the 'caller identifier' or the 'callee identifier.'*" APPX26-27 (Order) (emphasis added). And the district court took issue with the fact that "[n]either a telephone number nor a username *can be considered unique* to the '815 Patent, as the specification admits." APPX27 (Order) (emphasis added). Next, the district court applied the same search for novelty to other limitations of the claims. With respect to the caller dialing profile, the district concluded that "[t]he specification makes clear that the '815 Patent *did not invent the caller dialing profile*, but rather, the caller dialing profile is comprised of various identificatory attributes of subscribers that are left undefined in the claim and specification." APPX27 (Order) (emphasis added). And finally, with respect to the matching limitations of claim 1, the district court found that "[t]he specification makes clear that *this matching process is not unique* to the Patent either, especially as the '815 Patent *did not invent* the callee identifier or any of the information associated with the matching process, such as an area code."

APPX27 (Order) (emphasis added). In the case of claim 74, the district court made the same findings on its *Alice/Mayo* step 1 analysis. APPX41,42.

Also of significance to the district court's step 1 conclusion that claim 1 is abstract was the finding that claim 1 "does not provide for any specific implementation of the abstract idea." APPX29 (Order). According to the district court, claim 1 is abstract because it:

does not specify, for instance, the content of the caller and callee identifiers, the technology that matches information in the caller dialing profile with information in the callee identifier, what network classification criteria are used to classify the call as a public network or a private network call, or how the classification is implemented.

APPX29 (Order). Instead, according to the district court, "the claim recites a generalized solution in broad, functional language—namely, 'locating,' 'determining,' and 'classifying,' a call based on a caller identifier and a callee identifier." APPX29 (Order).

The district court rejected evidence submitted in support of VoIP-Pal's argument that claim 1 does more than simply describe a function or outcome without describing how to achieve results. APPX29 (Order citing VoIP-Pal's Opposition A1312, 1296-1328 generally). VoIP-Pal provided evidence that the 'routing message' that sets up the 'call controller' is based on a classification of a call destination, which, in turn, was identified by a caller-specific evaluation of the 'callee identifier' (i.e., based on 'attributes' associated with the initiating caller in

their ‘dialing profile.’) *Id.* The district court rejected VoIP-Pal’s evidence as “**unconvincing.**”⁴ APPX30 (emphasis added). Instead, the district court credited Defendants’ argument that “claim 1 fails to specify how attributes are compared to a callee identifier, what criteria matter, or how a routing message may be used to ‘set up’ a call controller or ‘identif[y] network infrastructure for a given call.” APPX30.

C. The District Court Analogized To An Alleged Long-Standing Practice Set Forth In An Unrelated District Court Decision And That Does Not Practice The Patented Inventions.

Next, the district court furthered its analysis that claims 1 and 74 are abstract by examining purported analogous art and alleged long-standing practices and concluding that the asserted claims are analogous to age old methods that the district court referred to as an “operator analogy.” APPX30-32; APPX42-43. However, lacking evidence of any suitable analogous long-standing practice in the record below, the district court analogized claims 1 and 74 to an invention in an entirely unrelated district court decision that found the invention there to be ineligible, ultimately concluding that claims 1 and 74 of VoIP-Pal’s patents are the same as the long-standing practice in that decision. APPX30,31 and APPX42,43. Indeed, the

⁴ It is worth noting the inappropriately high standard that the district court applied to VoIP-Pal’s arguments and evidence. On a Rule 12(b)(6) Motion to Dismiss, the district court, and this Court, need not be “*convinced*” of anything. All inferences must be made in favor of VoIP-Pal. *Cedars-Sinai Med. Ctr. v. Nat’l League of Postmasters of U.S.*, 497 F.3d 972, 975 (9th Cir. 2007). It is Defendants that must show the patent to be ineligible with clear and convincing evidence. 35 U.S.C. § 282.

district court cited to the District of Delaware's decision in *Parus Holdings, Inc. v. Sallie Mae Bank*, 137 F. Supp. 3d 660 (D. Del. 2015) finding that in *Parus Holdings*, the claim in question called "for using a 'computer and telecommunications network for receiving, sending and managing information from a subscriber to the network and from the network to a subscriber.'" APPX30-31,42. The district court analogized to *Parus Holdings*, explaining that the claim in question in *Parus Holdings* was found to be abstract due to the presence of "pre-Internet analogs" that could be performed by humans, such as a personal assistant directing calls. APPX31,42. Ultimately, the district court made the blanket assertion that "call routing patent claims could be performed by humans" and are therefore abstract. APPX31,42. Oddly, the district court articulated claims 1 and 74 in the following way, while at the same time dismissing the claims on the conclusion that they could be performed by a human. APPX31,43.

Noticeably absent from the district court's analysis and conclusion that the patented invention could be performed by a human are references to claim 1's and 74's method and process of operating a call controller in a system with numerous tangible nodes in order to facilitate the routing of a phone call within a system characterized by physical gateways and addresses to public, private and packet-switched networks, all of which are claimed limitations that are required for the inventions to be operable. APPX167 ('815 Patent) 36:14-39; APX234 ('005 Patent)

43:40-65. Instead, the district court ignored those limitations – all of which are required for the inventions’ purpose - leading to its conclusion that the process and method of claims 1 and 74 could be performed by a human and therefore that all communications routing inventions are necessarily invalid. APPX31, 42.

The district court discredited VoIP-Pal’s arguments distinguishing the purported operator analogy, instead favoring the assumption that age-old telephone operators used caller identity to attribute toll charges or to record a caller’s number for a call back in case the connection was lost. APPX31. Glaringly devoid from the district court’s decision on the subject is the fact that, as shown by VoIP-Pal, telephone operators did not use caller information to route a call. APPX1321-22 (VoIP-Pal’s Opposition to Motion to Dismiss). In other words, the district court omitted from its consideration the fact that there had been no evidence presented that telephone operators used caller identity to route a call, and then dismissed claims 1 and 74 – along with the eighteen (18) other asserted claims – as being analogous to prior art teachings that telephone operators routed calls without using caller identity. APPX31.⁵ This disguised novelty and enablement determination became a self-fulfilling analysis of abstraction.

⁵ The district court stretched the position that an operator might have used caller information to attribute toll charges as evidence that an operator did use caller information to route a call. APPX31. This conclusion, more akin to a novelty type determination, does not provide any required inference in favor of VoIP-Pal, nor does it respect the fact that the Patents-in-Suit have survived numerous challenged by two of the defendants with respect to this very issue.

SUMMARY OF ARGUMENT

The claims here satisfy the two-step test for patent eligibility under § 101 set forth by the Supreme Court in *Alice* and *Mayo*.

At step one, the claims are not “directed to” an abstract idea. The district acknowledged that at *Alice/Mayo* step one, the character of the claims must be identified ‘*as a whole*’ and that the court must not focus on an *unduly ‘high level of abstraction ... untethered from the language of the claims*. APPX25. That is correct. The claims – as a whole - cover a specific technological process for telephone, messaging and other forms of communication that yield a tangible result – a telephone call or message that allows people to communicate at long distance between public, private and packet-switched networks over the internet. The claims are not directed to a mere idea, having no particular concrete or tangible form. The claims are not directed to a mathematical formula for calculating a number. Nor are they directed to a “business method” or “fundamental economic practice” comprising ideas about organizing human activity. They address an improvement to a specific technological process and method.

The § 101 analysis here thus should end at step one. But even if the Court were to assume the claims are directed to an abstract idea, they must be upheld if the claimed implementation “add[s] enough ... to allow the processes they describe to qualify as patent-eligible processes that apply” the putative abstract idea rather than

seeking to monopolize the idea itself. *Mayo Collaborative Servs. V. Prometheus Labs, Inc.*, 132 S. Ct. 1289, 1294 (2012). A patent claim satisfies this test if it improves an existing technological process. And the claims here do just that. They recite a technological method and process that enables a computer to do something it could not do before – reliably and transparently route a phone call and other messages to physical gateways, nodes and destination addresses in a multi-layer network.

The claims, moreover, extend only to a highly specific “application” of any underlying ideas. The patents do not simply say “route a communication using information about the participants.” The claims cover only specific types of routing. The patents thus are limited to a very specific communication routing process—it must utilize “caller attributes” and a “caller dialing profile” and it must determine the routing after classification based on those caller attributes and callee information and then route that call to a specific gateway or physical address within a multi-network environment.

Because the claims recite only a specific means of computer routing among many, the claims do not implicate the fundamental pre-emption concern that undergirds the abstract-ideas exception. There are many “non-infringing ways” to route telephone calls and other communications. It is thus difficult to see how the claims might implicate the “basic underlying concern that these patents tie up too

much future use of any abstract idea they apply.” *Mayo*, 132 S.Ct. at 1302. The district court found the patents abstract only after departing from the *Alice/Mayo* test and applying a §101 test of its own devising. But the court’s analysis has already been roundly criticized, *see Cal. Inst. of Tech. v. Hughes Commc’ns Inc.*, 59 F. Supp. 3d 974, 989 (C.D. Cal. 2014), and with reason.

First, at *Alice/Mayo* step one, in determining the character of the claims, the court excluded from its analysis any limitation with a basis in the prior art and ignoring others as generic, declaring the asserted claims to be intangible and abstract because they lacked novelty and were generic or not-enabled. But the Supreme Court expressly rejected that approach in *Diamond v. Diehr*, 101 S.Ct. 1048 (1981), holding that “[t]he ‘novelty’ of any element or steps in a process . . . is of no relevance” in determining whether a claim is directed to an abstract idea. *Id.* at 1057-58. To the extent purely “conventional activity” may sometimes be discounted, that factor is considered only in the context of the second step of the *Alice/Mayo* test. And the district court interpreted “conventional activity” to mean that any step with a basis in the prior art must be disregarded in the §101 analysis. *See supra*. But neither *Mayo* nor any other precedent defines “conventional activity” to include everything in the prior art.

The district court made erroneous findings even within its own faulty “point of novelty” framework, misconstruing the scope of the prior art. And the court

ultimately held that the patents' use of steps that were supposedly not novel or generic and not-enabled is an "abstract idea" because the concepts are specified at the highest level of generality. But the steps in the method are not claimed at the highest level of generality. The specific types of steps are identified: those based on matching the callee identifier with "caller attributes" and "classification" thereof that are steps taken in the claimed processes and methods in order to facilitate the routing of a communication between callers and users in a multi-layer communication network. Claiming those categories of criteria or classification steps, rather than reciting every example, is accepted patent practice. It does not render the claims abstract.

The district court's analysis would endanger not just patents relating to communication routing, but all software patents.

STANDARD OF REVIEW

This Court reviews *de novo* a district court's determination of patent eligibility under 35 U.S.C. §101. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014). Moreover, Defendants' challenge to the Patents-in-Suit was brought as a Motion to Dismiss under Fed. R. Civ. P. 12(b)(6). The district court granted Defendants' Motion. This Court reviews a district court's dismissal under Rule 12(b)(6) according to the law of the regional circuit. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1124 (Fed. Cir. 2018) (quoting *Content*

Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1346 (Fed. Cir. 2014). In the Ninth Circuit, on a Rule 12(b)(6) Motion to Dismiss, a court must take “all allegations of material fact in the complaint as true and construe them in the light most favorable to the non-moving party.” *Cedars-Sinai Med. Ctr. v. Nat'l League of Postmasters of U.S.*, 497 F.3d 972, 975 (9th Cir. 2007).

ARGUMENT

The claims at issue are generally directed to call controllers – and processes and systems for their operation – that enable phone calls and other communications to be routed to physical addresses or gateways between different kinds of computer networks. APPX167 (‘815 Patent) 36:13-39, 38:53-67, 39:1-13; APPX234 (‘005 Patent) 43:40-65. In the prior art, telephone and message routing was limited in utility, unreliable and required user intervention in order to indicate the routing path for a phone call or other communication to occur. The claimed methods and systems performing the methods overcome those limitations and provide for the routing of telephone calls and messages to physical nodes and gateways between various packet-switched networks with the benefit of increased functionality, reliability and limited user input required using information about the caller. *See supra*.

The district court’s holding that the claims do not cover patent-eligible subject matter under §101 cannot stand. The district court stripped the tangible and concrete call controller, network and gateway limitations from the claims; limitations that are

necessary to render the invention operable in order to route phone calls and messages over the internet according to the invention. *That is a specific technological process.* The district court's error had the effect of vitiating critical claim limitations and collapsing the claims to such a high level of generality that the district court's abstraction analysis became a foregone conclusion. The claims independently satisfy each prong of the two-part test for patent-eligibility that the Supreme Court adopted in *Alice* and *Mayo*. The district court did not analyze whether the claims are abstract. The district court analyzed whether its highly generic articulations of the claims – characterizations that would not even be operable or enabled - were abstract. The district court's purported expression of the invention would not function as characterized by the district court because it is missing critical limitations.

And it is clear that the patents do not seek to monopolize anything remotely resembling the “building blocks of human ingenuity” or “the basic tools of scientific and technological work.” *Alice*, 134 S.Ct. at 2354. There are numerous ways to route phone calls and communications over public switched and private networks that do not infringe the patents.

The district court found the asserted claims abstract only after applying a validity framework that resembled a 35 U.S.C. § 102 or 35 U.S.C. § 103 novelty and obviousness analysis along with a 35 U.S.C. § 112 written description and enablement test. Reading out of the claims any limitation with a basis in the prior art

or that were allegedly generic and vague, the court attempted to locate the supposed “point of novelty.” But the Supreme Court has expressly rejected that approach. And the district court made erroneous findings regarding the patented invention and the prior art, even within its own framework. As another judge explained, criticizing decisions like the one below:

[I]t is difficult to imagine any software patent that survives under [this] approach—most inventions today build on what is known in the art, and an improvement to software will almost inevitably be an algorithm or concept which, when viewed in isolation, will seem abstract. This analysis would likely render all software patents ineligible

Cal. Inst. of Tech. v. Hughes Commc’ns Inc., 59 F. Supp. 3d 974, 989 (C.D. Cal. 2014) (emphasis added). The district court also deemed various claim limitations generic and vague, without any evidence in support and contrary to evidence that one of skill in the art would have understood the scope of the inventions claimed in the Patents-in-Suit.

The decision below should be reversed.

I. The Claims Are Not Unpatentably Abstract Under §101

Section 101 defines patentable subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. But “laws of nature, natural phenomena, and abstract ideas” are not eligible. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). To determine whether a patent covers an abstract idea outside §101, the court first

considers whether the claims are “directed to” an abstract idea. *Mayo*, 132 S.Ct. at 1296-97. If they are, the court considers whether the claims’ elements “add *enough* to their statements of the [abstract idea] to allow the processes they describe to qualify as patent-eligible processes that *apply* [the abstract idea].” *Id.* at 1297 (emphasis added). The Supreme Court has “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.’” *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1294) (alteration in original).

Alice clarified that the abstract-ideas exception does not apply if the invention “solve[s] a technological problem in ‘conventional industry practice,’ ” “improve[s] an existing technological process,” or otherwise “effect[s] an improvement in any other technology or technical field.” *Alice*, 134 S.Ct. at 2358, 2359. While the Court did not hold that an invention *must* represent a technological advance to be patent-eligible under §101, *Alice* indicates that a claim that *does* represent such an advance is patent-eligible.

The claims here independently satisfy *each* step of the *Alice/Mayo* test.

A. Step One: The Claims Are Not “Directed To” an Abstract Idea

1. *The Claims Are “Directed To” a Technological Process That Produces Tangible Results*

At the first *Alice/Mayo* step, the court must make a threshold determination “whether the claims at issue are directed to a patent-ineligible” abstract idea. *Alice*, 134 S. Ct. at 2355. Here, they are not.

The district court, as well as many other courts, have erred and continue to err in applying the first *Alice/Mayo* step. The test is whether the claims are directed to an abstract idea. Instead of analyzing that question in the context of all of a claim’s limitations, the district court engaged in an exercise that stripped the claims down to bare nebulous propositions, ignoring the tangible and concrete technological aspects of the claims. Significantly, the technological limitations that the district court ignored are necessary to render the invention operable. As such, those limitations must be included in the analysis; they cannot simply be ignored. The district court’s analysis did not examine the claims as a whole; it examined a purported expression of the invention that is not a reflection of the claims. From there, the district court proceeded to conclude that the subject claims were devoid of tangible and concrete features in a process that was doomed to fail from the start. But the Supreme Court and various decisions of this Court have never authorized such an analysis and instead have warned against it.

Claim 1 of the ‘815 Patent and Claim 74 of the ‘005 Patent are set forth *supra*. See also APPX167 (‘815 Patent – Claim 1) 36:14-39; APPX234 (‘005 Patent – Claim 74) 43:40-65. The claims expressly state their purpose: Claim 1: a process for

operating a call routing controller to facilitate and to route communications between callers and callees between private and public networks in a system comprising a plurality of nodes with which the callers and callees are associated. APPX167 (36:14-39). Claim 74: a method of routing communications through a controller in order to facilitate and to route communications between users that are associated with various packet-switched networks. APPX234 (43:40-65). In other words, the claims begin with a call and a physical controller that is used to route phone calls and messages between users associated with different types of networks – this is a technological process with technological features and components. And the claimed process and method generate a tangible product, such as a phone call or other message that is routed over a computer node to a gateway to a public network, an address on a private network or a destination on a packet-switched network. APPX167 (36:14-39); A234 (43:40-65). These are technological features and components of a technological process.

Every claim element is in service of, and necessary to, the recited process and method of facilitating calling (and messaging) that happen by providing for a specific technological process of routing communications to physical addresses or gateways to a private, public or other packet-switched network. They do not merely recite “functional and generic claim terms” or “claim a specific result without identifying how to accomplish that result.” They require particular types of rules and

steps—those that analyze specific information about the users making and receiving a phone call in order to make the call happen and to properly route it, APPX167 (‘815 Patent-Claim 1) 36:1-20; APPX234 (‘005 Patent-Claim 74) 43:40-50—as part of a specific, “integrated method,” APPX167 (‘815 Patent-Claim 1) 36:14-18; APPX234 (‘005 Patent-Claim 74) 43:40-45, using controllers, gateways, nodes and others tangible hardware to allow users to communication at a distance. APPX167 (‘815 Patent-Claim 1) 36:14-38; APPX234 (‘005 Patent – Claim 74) 43:40-65. No limitation is “plainly . . . divisible” from the other elements as a stand-alone abstract concept. *DDR Holdings*, 773 F.3d at 1256. Facially, ***these claims are not directed to an abstract idea***, and ***they are tangible***, each covering an approach to routing phone calls over the internet, which is ***a specific technological process***. APPX167 (‘815 Patent-Claim 1) 36:14-38; APPX234 (‘005 Patent – Claim 74) 43:40-65.

Indeed, the entire field of voice-over-internet telephony and communications is ***inherently*** technological and tangible. Even using prior-art methods, the critical steps—initiating the call and integrating physical networks to identify the proper node for the routing of a call—are performed using special software on computers. The method for performing that process here, APPX167 (‘815 Patent-Claim 1) 36:14-38; APPX234 (‘005 Patent – Claim 74) 43:40-65, “implemented as separate modules on a *common computer system* or by separate computers,” APPX6 (citing *e.g.*, APPX156 14:12-16) is likewise inherently technological. It is no mere “idea,

having no particular concrete or tangible form.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014).

The purpose of the claims, moreover, is to *make something tangible*. The method produces a phone call—audio you can hear after entering someone’s phone number into the system and that someone else can hear when that phone call is routed to the recipient’s phone. That tangible output is an element of the claim. *See* APPX167 (‘815 Patent) 36:14-20,26,35; APPX234 (‘005 Patent) 43:40-47. It is hard to see how anyone could initiate a phone call or other kind of message, enter someone else’s phone number, and connect with a user on the other end under the patented method, *see* APPX167 (‘815 Patent) 36:14-39, APPX234 (‘005 Patent) 32:40-65, and conclude that the claims are directed to a mere “abstraction.” *Ultramercial*, 772 F.3d at 715.

2. Supreme Court Precedent Confirms That the Claims Are Not “Directed To” an Abstract Idea

The Supreme Court has recognized two categories of claims that implicate the abstract-ideas exception. The first concerns claims covering algorithms, in the form of mathematical formulas, that are used for calculating numbers. In *Parker v. Flook*, 437 U.S. 584 (1978), for example, the Court held that a claim covering a formula for calculating “alarm limits”—which were simply “a number”—was an unpatentable abstract idea. *Id.* at 585. Similarly, in *Gottschalk v. Benson*, 409 U.S. 63 (1972), the Court held that a claim to a mathematical formula for converting binary-coded

decimals into pure binary numerals was unpatentably abstract. *Id.* at 64. Second, the Court has found so-called “business methods”—essentially ideas about “fundamental economic practice[s]” and “organizing human activity”—to be abstract. *Alice*, 134 S. Ct. at 2356-57. In *Alice*, the Court invalidated claims directed to the business method of “intermediated settlement.” *Id.* And in *Bilski*, the Court held that claims directed to “hedging risk” were abstract ideas. *Bilski v. Kappos*, 130 S.Ct. 3218, 3229 (2010). The claims here do not remotely fit within those categories.

Instead, they are like the claim in *Diehr*, which the Supreme Court held was *not* directed to an abstract idea. *Diehr*, 101 S.Ct. at 1055-56. The claim there was for a “method of operating a rubber-molding press for precision molded compounds with the aid of a digital computer.” *Id.* at 1053 n.5. It recited the use of a mathematical formula, the “Arrhenius equation,” as part of a “step-by-step method” for curing rubber. *Id.*, *id.* at 1055. The Court explained that “Arrhenius’ equation is not patentable in isolation.” *Id.* at 1057-58. But the claim was not directed to “patent[ing] [that] mathematical formula.” *Id.* Instead, it sought “patent protection for a process of curing synthetic rubber.” *Id.* The Court stated that “[i]ndustrial processes such as this are the types which have historically been eligible to receive the protection of our patent laws.” *Id.* at 1055.

As in *Diehr*, the claims here do not seek to patent a “mathematical formula” or any other abstract concept. Instead, they cover a specific, step-by-step process—

implemented using the internet through software and computers—for routing a voice over internet call or other communication between private, public and other packet-switched networks. Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. *See Alice* at 2354 citing *Diehr*. The Court has said that applications of such concepts to a new and useful end, remain eligible for patent protection. *Id.* citing *Gottschalk v. Benson*, 93 S.Ct. 253 (1972). No less than the rubber-curing method in *Diehr*, that is a specific technological process that produces a tangible result. It, too, should be “eligible to receive the protection of our patent laws.” *Diehr*, 101 S.Ct. at 1054.

The district court’s articulation of what the claims are “directed to” improperly strips concrete elements from the claim(s) in reaching a conclusion that the claims of the Patents-in-Suit are directed to an abstract idea. Ultimately, the Court concluded that “[c]laim 1 is abstract because first, it only discloses generalized steps to carry out generic functions, and second, because there are long-standing practices analogous to the claimed steps.” *See* APPX26. But to reach the conclusion that the claims are abstract, the Court necessarily eliminated concrete elements from claim 1 of the ‘815 Patent such that the allegedly abstract idea is not a true reflection of the claim 1 and certainly not an embodiment of the ‘815 Patent. This self-fulfilling analysis cannot be found anywhere in Supreme Court jurisprudence.

In *Alice*, the Supreme Court precluded computerization of abstract ideas with generic and non-conventional means. The Supreme Court did not invalidate every use or incorporation of computer or other technology into a claim – generic or not. Such a test would foreclose improvement of existing technologies. There is no dispute that a computer is a tangible system (in § 101 terms, a ‘machine’), or that many computer-implemented claims are formally addressed to patent-eligible subject matter. That alone does not end the § 101 inquiry. Where the Supreme Court took issue with computer elements is where a patentee, holding claim over an abstract idea, merely attempts to computerize that abstract idea.

Therefore, in order to determine whether a claim is abstract, a court must consider whether the claims merely computerize an abstract idea – not whether the claims use novel or generic computer elements as part of its claims. *Alice*, 134 S.Ct. at 2359 (“In light of the foregoing, the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer.”). In other words, a claim is to an ineligible abstract idea, if without any of the recited tangible, yet generic or conventional, technological or computer elements, one is left with a complete process, product or method that is abstract.

The claims that were invalidated in *Alice* are illustrative. Claim 33 at issue in *Alice* was entirely devoid of any express tangible concrete computer limitations and

read on long-standing activity that is fundamental to economic practices and that can be performed by a human without a computer or any technology. *See CLS Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1285 (Fed. Cir. 2013). It is clearly directed to the abstract idea of mitigating settlement risk. However, more interesting to the analysis was *Alice* claim 1 that was representative of the system claims. *CLS Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1289 (Fed. Cir. 2013).

Claim 1 in *Alice* was similar to claim 33 there except that claim 1 did have limitations that were technological computer elements. However, in *Alice*, the Supreme Court concluded that claim 1 of the '720 Patent also was directed to the same abstract idea of mitigating settlement risk as claim 33. In rejecting the significance of the concrete and tangible computer and data storage limitations in claim 1 of the '720 Patent, the Supreme Court in *Alice* explained that the system claims, when viewed as a whole, simply recited the concept of “intermediated settlement as performed by a generic computer.” Significantly, the Supreme Court concluded that the computer components “*ad[d] nothing ... that is not already present when the steps are considered separately.*” *Alice* at 2369 (citing *Mayo*, 132 S.Ct. at 1298) (emphasis added). In other words, the Supreme Court explained that the computer components were not required to perform the process of intermediated settlement of the invention. They added nothing. The patentee merely took the

abstract idea and computerized it by adding limitations to a “data storage unit” and a “computer”.

But that analysis – that the tangible and concrete technological elements add nothing – does not apply to VoIP-Pal’s inventions. Indeed, the technological and computer limitations set forth in VoIP-Pal’s claims are integral and necessary to the invention, which cannot be performed without them. They are inherent to the claimed processes, systems and apparatus, all of which cannot be performed or function without these components. These tangible and concrete technological components are required to make VoIP-Pal’s invention work.

For example, claim 1 of the ‘815 Patent is a process for “operating a call routing controller.” *See* APPX167 (‘815 Patent) 36:14-39. That call routing controller is required to make the invention work and is tangible and concrete. It is not abstract. Claim 1 of the ‘815 Patent also requires a “plurality of nodes,” i.e., physical junctions or points of connection in system architecture. *Id.* Those nodes are required to make the invention work and are tangible and concrete. Claim 1 of the ‘815 Patent also requires the presence of a “gateway,” which is a hardware device that acts as a gate between two networks. *Id.* That gateway is required to make the invention work and is tangible and concrete. Finally, claim 1 of the ‘815 Patent requires different types of calls – a “private network call” and a “public network call” as well as a “private network” and a “public network”. *Id.* Whether generic or

not, those tangible and concrete limitations are required for the inventions of the Patents-in-Suit to work.

3. *The Claims Are Not “Directed To” an Abstract Idea Under This Court’s Precedent*

This Court’s post-Alice cases are to the same effect. In *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), the Court found claims directed to a “device profile,” which was a formula for combining two data sets into one, to be ineligible under §101. *Id.* at 1351. Like the claims in *Flook*, it was simply a means of calculating numbers. *Id.* And in *Ultramercial*, 772 F.3d at 715, and *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014), this Court invalidated patents directed to business methods—“using advertising as an exchange or currency,” and creating a “transaction performance guaranty,” respectively—that were not distinguishable from the claims the Supreme Court invalidated in *Alice* and *Bilski*. *See also Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1008 (Fed. Cir. 2014) (invalidating claims for “managing a game of bingo” as “similar to the kind of ‘organizing human activity’ at issue in *Alice*”).

The claims here are quite different. They more closely resemble the patent in *DDR Holdings*. The patent there addressed a problem “particular to the Internet”—how a host website can retain visitors when the visitor clicks on a link to a third-party merchant’s advertisement. *DDR Holdings*, 773 F.3d at 1257. It claimed a

system that generates a “hybrid” website that retains the “look and feel” of the host’s website, while allowing the visitor to buy products from the third-party merchant without actually entering the merchant’s website. *Id.* at 1257-58.

Rejecting the contention that the claims sought to patent abstract ideas, the Court observed that the claims did not fall within the categories previously found to implicate the abstract-ideas exception: “[The] claims do not recite a mathematical algorithm. Nor do they recite a fundamental economic or longstanding commercial practice.” *DDR Holdings*, 773 F.3d at 1257. While the claims implicated commerce, the Court found, “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.* And while the claims at issue were not “technologically complex,” they were nevertheless technological: They “specify how interactions with the Internet are manipulated to yield a desired result” when clicking a hyper-link. *Id.* at 1258-59. The claims were “different enough in substance” from claims in prior cases that “broadly and generically claim[ed] ‘use of the Internet’ to perform an abstract business practice” to be patent-eligible. *Id.* at 1258.

As in *DDR Holdings*, the claims here are “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer[s].” *DDR Holdings*, 773 F.3d at 1257. They provide a method (and an apparatus that performs the method) for getting a computer to automatically connect

a phone call or other communication—without requiring a user’s constant intermediation in the routing process, or yielding the inefficient and unreliable results of prior methods. *See supra*. Like the claims in *DDR Holdings*, they are patent-eligible because they constitute a technological advance that is sufficiently “unlike the claims in *Alice*” and other cases “that were found to be ‘directed to’ little more than an abstract concept.” *DDR Holdings*, 773 F.3d at 1259. Indeed, the claims here are more clearly patent-eligible than those in *DDR Holdings*. Unlike *DDR Holdings*, there is no conceivable argument that the claims are merely “entrepreneurial” rather than “technological.”

B. Step Two: The Claims Recite a Patent-Eligible Application of An Idea

Step two of the *Alice/Mayo* framework assumes the court has found that the patent claims are directed to an abstract idea at step one. Because the claims here are not directed to an abstract idea at all, the Court need go no further. But even if the Court were to assume the claims are directed to an abstract idea, the implementation here “add[s] *enough* . . . to allow the [claimed] processes . . . to qualify as patent-eligible processes” that employ any putative abstract idea. *Mayo*, 132 S. Ct. at 1297 (emphasis in original).

1. The Claims Are a Patent-Eligible Improvement to a Technological Process And Provide an Inventive Concept

The district court held that the claims here are directed to an abstract idea. APPX25,39. In *Alice*, however, the Supreme Court indicated that a claim represents a patent eligible application of an abstract idea if it “effect[s] an improvement in any other technology or technical field.” 134 S. Ct. at 2359. Therefore, where an invention improves a subject technology, the invention is not ineligible. The invention here provides just such an improvement in the technological field of voice, video and data communication and telephony routing.

As explained above, the field of the invention—call and communication routing—is inherently technological. All of the phone calls and messages are created, transmitted, directed and received using special software and hardware on computers. *See supra*. The problem the patents solve is also a technological one: How can one improve telephone and other communications so that they can seamlessly integrate with different kinds of computer networks and automatically route a communication to create a phone call, a video call or a text message?

Specifically, the claims improve the functioning, versatility and integration of private- and public-network communications by a non-generic and unconventional arrangement of claim elements—namely, an improved call routing controller, process, system and technology providing customized, user-specific access to call routing integrated to the respective infrastructures of two distinct types of communication networks, i.e., a “public network” (e.g., PSTN) and a “private

network” (e.g., VoIP). APPC1030-34 (Third Amended Complaint) at ¶¶ 7-15. Accordingly, the claims should be held patent-eligible under § 101.

Even apart from meeting *Alice*’s “technological improvement” standard, the claims separately satisfy step two of the *Alice/Mayo* analysis because they reflect 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’” any purported abstract idea “‘itself.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294). Indeed, the claims contain several such inventive concepts. They recite a method and process that employs specific information in specific steps to produce reliable and transparent routing to distinct physical points in a system of networks. And the claims provide a specific technological way of using that information to generate the call.

Under step two of *Alice*, the “ordered combination” of elements in the claims represent a patent-eligible application (i.e., “inventive concept”) satisfying § 101. The district court did not reach this “inventive concept” partly due to serious errors in its application of *Alice* step two to the “ordered combination” as discussed herein. APPX37,46. When *all* claim limitations are considered both individually and in combination—they can be seen to contain a distinct, non-conventional, non-preemptive and patent-eligible *application* going well beyond the any “abstract idea” of routing.

Step two of the *Alice/Mayo* framework requires that a court consider whether the “additional elements” of a claim (*i.e.*, those going beyond the ineligible “abstract idea” identified in step one) integrate the (step one) ineligible concept into a non-preemptive, patent-eligible application:

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, ***what 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.***”

Alice, 134 S. Ct. at 2355 (emphasis added)(citations and quotations omitted); *see also Elec. Power Group LLC v. Alstom S.A.* 830 F.3d 1350, 1353 (Fed. Cir. 2016) (“the second-stage inquiry... look[s] ***more precisely*** at ***what the claim elements add***—specifically, whether, in the Supreme Court’s terms, they identify an ‘inventive concept’ in the ***application*** of the ineligible matter”) (emphasis added). Accordingly, “all” claim elements must be considered within the context of the claim “as a whole”:

“[b]ecause the approach [the Court] made explicit in *Mayo* considers ***all*** claim elements, both ***individually*** and ***in combination***, it is consistent with the general rule that patent claims ‘***must be considered as a whole.***’”

Alice at 2355, footnote 3 (emphasis added), citing (*inter alia*) *Diehr*, 101 S.Ct. 1057-58 (“claims must be considered as a whole, it being inappropriate to dissect the

claims into old and new elements and then to ignore the presence of the old elements in the analysis.”).

Thus, neither the “additional elements” nor the “abstract idea” can be excluded from a step two analysis; rather, a court reviews what the *integration* of both contributes to the claim “as a whole”. In *Diehr*, “the overall process [was] patent eligible because of the way the *additional steps* of the process *integrated* the [patent-ineligible] equation into the process *as a whole*.” *Mayo*, 132 S.Ct. at 1298 (emphasis added) (citing *Diamond v. Diehr*, 450 U.S. 175, 187); *see also Core Wireless Licensing SARL v. LG Electronics Inc.*, 880 F.3d 1356, 1361 (Fed. Cir. 2018) (citing *Alice* at 2355) (holding that courts are to distinguish between “claims that claim patent ineligible subject matter and those that ‘*integrate* the building blocks into something more.’”) In contrast, the computer-implemented claims in *Alice* were patent-ineligible because the *way* the computer components were integrated with the abstract idea of intermediated settlement “*ad[ded] nothing*... that [was] not already present when the steps are considered *separately*.” *Alice* at 2359 (emphasis added); *see also supra* (comparing *Alice* claims 1 and 33). The computer was not improved nor did it “effect an improvement in any other technology or technical field.” *Id.* “Instead, the claims at issue [were]... an instruction to apply the abstract idea of intermediated settlement using [a] generic computer,” which did not

transform the abstract idea of intermediated settlement into a patent-eligible invention. *Alice* at 2360.

2. *The contribution of all limitations of the claims “as a whole” render the claims patent eligible.*

Below, the district court failed to analyze the “way the *additional steps* of the process [are] *integrated* [with the patent-ineligible abstract idea] into the process *as a whole*.” *Mayo*, 132 S.Ct. at 1298. Instead, the district court oversimplified the claim in order to rely on a technically tenuous analogy to claims drawn to a completely different technology. APPX37 (Order); compare APPX42 (Order).

The district court grossly oversimplified the “ordered combination”. Three brief sentences assert the equivalence of *paraphrased fragments* of claim 1 to the steps of “processing,” “routing” and “controlling” as claimed (and held patent-ineligible) in *Two-Way Media Ltd v. Comcast Cable Comm’n*, 874 F.3d 1329 (Fed. Cir. 2017)⁶, whereupon the district court summarily concludes that the ordered combination lacks an inventive concept. APPX37 (Order). Thus, the “ordered combination” of the claims is distilled down to *three words* extracted from the claims of a completely unrelated patent in an entirely different case. This reductionistic

⁶ Three brief sentences assert the equivalence of paraphrased fragments of claim 1 to the steps of “processing,” “routing” and “controlling” as claimed (and held patent-ineligible) in *Two-Way Media*, 874 F.3d 1329 (Fed. Cir. 2017), whereupon the district court summarily concludes that the ordered combination lacks an inventive concept. APPX37 (Order). Thus, the “ordered combination” of the claims is distilled down to three words extracted from the claims of a completely unrelated patent in an entirely different case.

analysis not only fails to apply “step two” as required by *Alice* and *Mayo*; it also contravenes the warnings of the Supreme Court in *Diehr* and numerous decisions of this Court. Courts should consider *all elements* as part of the ‘ordered combination,’ even those elements which, in isolation, appear abstract. *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016); *see also McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016) (holding that courts “‘must be careful to avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims”). In *McRO*, this Court explained that “[w]hether at step one or step two of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps.” *Id.*

The district court also bypassed the requirement to evaluate the contribution of the integrated “additional elements” to the claim “as a whole.” By stripping out multiple, concrete “additional elements” from the “ordered combination” (*e.g.*, APPX37 (Order)), the district court obscured (*inter alia*) that claim 1 of the ‘815 Patent

- relates to “*operating* a [specially programmed] *call routing controller*” (*see id.*, claim 1 preamble) that communicates with a “call controller” to integrate calling over distinct types of networks: “private network” and “public network”;

- that call classification is based on whether one or more “*matches*”⁷ meet “*private network classification criteria*” or “*public network classification criteria*”;
- that the claim recites specific routing infrastructure, which is identified in the routing message (*e.g.*, “a *gateway* to the *public network*” or “an *address*, on the *private network*, associated with the callee,” *e.g.*, of a “*node*” [see claim 1 preamble]); and
- that “*receipt*” of the “routing message” by the “call controller” *causes establishment of the call*.⁸

Indeed, this analysis forecloses discovery of what step two is supposed to uncover: *i.e.*, whether the “additional elements” add “something more” in the form of a specific *application* of the “abstract idea” from step one. Instead, the Court restricted its analysis to whether the “ordered combination” had a “conventional ordering of steps”—a far narrower enquiry than mandated by *Alice/Mayo*. APPX37 (Order).

None of the “additional elements” that the district court omitted in its step one analysis are inherent to the district court’s articulation of the alleged “abstract idea” - routing a call based on characteristics of the caller and callee. *See* APPX25,35

⁷ By reducing this step to “classifying the call as a public network call or a private network call,” the Court simplifies and *decouples* “classification” from the preceding step of “match[ing]” between the “callee identifier” and at least one “calling attributes” [which is] “associated with the caller”—as located via the “caller dialing profile,” recited in a preceding step. *See* APPX37 (Order).

⁸ *E.g.*, ‘815 Patent, claim 1 preamble recites “facilitating communication between callers and callees”; claim 54 preamble recites “to establish a call”; and dependent claim 49 recites “cause the [] routing message to be communicated to a call controller to effect routing of the call”).

(Order). Indeed, the abstract idea does *not* require: (1) integrating two distinct types of networks (“public” and “private” or packet-switched); (2) that the integration be implemented by a “controller” operable to establish calls using “gateways” and “nodes” (*e.g.*, APPX171,172 (‘815 Patent) at claims 72 and 92, APPX156 (‘815 Patent) 14:17-23 and APPX118 at Figure 1); (3) a “call routing controller” instructing the “call controller” regarding what routing infrastructure to use with a “routing message” (*e.g.*, APPX130,133,134 at Figures 15, 16, 25, 32 (examples of routing messages)); (4) “determining” and “classifying” the network destination based on “matches” with a caller’s profile settings (“attributes associated with the caller”) (*e.g.*, claim 1; Figure 8B (exemplary classification method with matching)); (5) nor does it require “match[ing]” against a caller-specific profile (*e.g.*, APPX127,128 at Figures 9-12 (profile examples)) that is not provided by the caller during a call initiation attempt, but that is used as a basis-in-part for classifying and routing the call. APPX1317-19 (VoIP-Pal’s Opposition). Therefore, those additional limitations must be part of the analysis at step two.

Evaluating the contribution of these additional limitations at step two is required to properly analyze the “ordered combination” “as a whole,” it is clear that an “inventive concept” exists here and otherwise dispels its pre-emption concerns. *See Ameranth, Inc. v. Genesis Gaming Solutions, Inc.*, No. 11-00189-AG, 2014 U.S. Dist. LEXIS 175600, *18 (C.D. Cal. November 12, 2014) (holding that “[s]teps that

could be omitted while leaving intact [the “step one” ineligible abstract idea of] a player reward system” should have been addressed under step two; noting that “one could implement many different player reward systems that do not infringe the claims,” which could “show that the preemption concern is not implicated.”); *Diehr*, 101 S.Ct. at 1056-57 (computing a known mathematical equation not disqualifying under §101 when employed “in conjunction with all of the other steps” of the claim); *see also Comcast Cable Communications, LLC v. Sprint Communications*, 203 F.Supp.3d 499, 530 (E.D. Pa. 2016) (finding §101-eligibility where the “additional content in the claims” applied the abstract idea in the specific context of a “messaging server inquiry and resulting response”). So too here. Numerous communication routing methods are available that fall within the Court’s abstract idea but would not infringe Plaintiff’s claims.

The district court seemingly overlooked that its proposed “ordered combination,” stripped of its tangible and computer-based claim limitations, could not even *perform* the invention. While the district court has tried to confine the relevance of the *DDR* case to its Internet-specific facts (*see* APPX37-38 (Order)), *DDR* establishes that claims may be patent-eligible if the “claimed solution [was] necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings* 773 F.3d at 1245, 1256. Voip-Pal’s case fits within this broader principle (*see* APPX1324-26).

The district court also ignored Voip-Pal’s assertion that “for any routing controller or call controller intended to interoperate with both private and public network elements, there is a requirement for computer-based methods of communication to bridge the [networks]” and perform the patented invention. *See id.* including footnotes 19-20 (citing intrinsic technical evidence in the ‘815 Patent, overlooked by the district court); *compare* APPX37-38 (Order).

The district court’s conclusion that the claims lack an “inventive concept” is founded on the premise that the claims recite “**generic** aspects of computing [and] are performed using **generic** elements [which patentee] did not invent.” APPX37; *see also* APPX36 (“**[i]mportantly**, this process is performed on a **generic** computer...”)(emphasis added). This reasoning is fundamentally unsound. Even if (*arguendo*) the claims used “generic” programmable computers, numerous cases have found patent-eligibility for *unconventional arrangements* of generic elements.⁹ *See, e.g., Bascom Global Internet Servs., Inc. v. AT&T Mobility, LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016). (patent-eligible invention using “generic computer, network and Internet components,” which *Bascom* did not invent); *DDR Holdings*, 773 F.3d 1245 at 1249, 1264 (patent-eligible invention used a generic computer and

⁹ To be clear, VoIP-Pal rejects the notion that its routing controller is “generic” in view of the current record including: (1) the patents’ prosecution history, (2) the historical facts regarding prior PSTN nodes and private PBX switches set forth in the Complaint, (3) Patentee’s victory in **eight** individual *inter partes* reviews filed against the Patents-In-Suite—none of which was taken into account by the Court.

conventional elements: a “data store”, “web page having a link” and “computer processor”); *Amdocs Limited v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300 (Fed. Cir. 2016) (explaining that while “[t]he solution requires arguably generic components... these generic components operate in an unconventional manner”). The district court concluded that if a process is carried out by a “generic computer,” the process is *ipso facto* “generic.” See APPX41. Indeed, the district court explained its faulty reasoning on this point:

[a]s discussed above, a routing message is sent by the routing controller, a component of the super node, which is comprised of generic computers. *Therefore, the process of sending a network routing message is generic.*

APPX41. If this reasoning was correct, then *DDR*, *BASCOM*, and *Amdocs* were all decided wrongly and all software inventions implemented by non-proprietary, programmable computers would be patent-ineligible. But that is not the law.

This reasoning is improper and does not support any conclusion that the claimed “ordered combination” “as a whole” is generic and conventional. This also defies the specific inventive concept articulated in the Third Amended Complaint, that must be taken as true and that incorporates *all* of the recited claim elements in the “ordered combination,” explaining their integration within the claim “as a whole.” (See APPX1340 (Third Amended Complaint) at ¶ 16, APPX1333-57). The Third Amended Complaint explains how the “ordered combination” recites an arrangement that was unconventional in contrast to conventional prior PSTN nodes

and private PBX systems. (See APPX1335-40 (Third Amended Complaint) at ¶¶ 7-15). None of this material was properly analyzed by the Court in step two, even though assertions in a complaint must be accepted as true on a Rule 12(6)(b) motion to dismiss.

3. *The Court's analysis of individual claim elements is unsupported and erroneous*

Many of the Court's conclusions regarding *individual* claim elements are unsupported by "clear and convincing" evidence or are based on misunderstandings of the specification or claims.

The Court makes sweeping statements alleging that "***all*** the steps" in claim 1 of the '815 Patent are "generic", "not novel" APPX30 (Order), and that "***none*** of claim 1's elements are unique" (APPX35) or inventive (APPX35) (emphasis added), but provides no evidence except for tenuous allegations that the specification "admits" these things (APPX35). Other than the '815 Patent's disclosing that telephone numbers are used on the PSTN, the specification does not in fact admit a lack of novelty or inventiveness of any of its claim elements.

For example, in the Court's discussion of "classifying" and "producing a... routing message" (APPX36), no evidence is cited from the patent specification (or otherwise) that these claim limitations are not "unique" or inventive. The Court merely asserts that the steps are "performed on a generic computer." *Id.* But this does not prove these limitations are not novel or inventive.

The Court also asserts that the recited “caller dialing profile” is not inventive (APPX25), citing for support to APPX158 at 18:1-4 of the ‘815 Patent, which has no such admission. The record provides no basis for concluding that the “caller dialing profile” was not inventive in view of how it is used to classify a call. Nor is the profile comprised of “identificatory attributes” which are “left undefined” in the specification. APPX27,35,41. Rather, the ‘815 Patent specification defines specific contents for the caller dialing profile of the preferred embodiment. *See, e.g.*, APPX127,128 (‘815 Patent) at Figures 9-12, and APPX158,159 at 17:59-19:3. Even Defendants’ Motion admitted that the profile’s contents are defined in the specification. *See* Motion to Dismiss at 4. Elsewhere, the Court confuses the “caller identifier” with the “caller profile,” explaining (wrongly) that the “call routing controller... compares the callee identifier with attributes of the *caller identifier* [and] [b]ased on the comparison between the callee identifier and the *caller identifier*” determines classification. Decision at 5:6-8. This explanation is clearly wrong. *See, e.g.*, ‘815 Patent at 19:50-55, 21:27-50, and Fig. 8B. One can only conclude that the Court misunderstood the “caller dialing profile” in the specification and claims, underscoring the need for claim construction and a more developed record prior to a § 101 disposition.

Further, the Court asserts that the “matching process” is not “unique” because the Patent “did not invent the callee identifier or the process of matching”.

APPX35,25. But even if (*arguendo*) some of the *information* associated with the matching process *existed*, this does not inexorably entail that the matching *process* (*e.g.*, *see* Fig. 8B) lacks inventiveness. *See DDR* at 1265 (claims that processed “existing [website] information” held to contain an “inventive concept”). The current record lacks any evaluation of prior art matching methods. Also, the issue of whether a claim element supports an “inventive concept” requires considering its relationship to other claim elements (*e.g.*, “determining a match” forms the basis of subsequent steps of classifying and routing and is dependent on a preceding step of obtaining the caller’s profile settings). The Court’s reliance on a case holding that “matching information” *in a particular context* did not provide an inventive concept is not dispositive. APPX32. In *another context*, a claim that recited “matching identifiers” was held to be patent-eligible. *Comcast Cable Comm’n, v. Sprint Comm’n Co.*, 262 F. Supp. 3d 118, 140-142 (E.D. Pa. 2017).

II. The District Court’s Decision Was Premature.

The district court’s oversights have prevented recognition of how the ordered combination improves communications routing technology, and this was compounded by a lack of claim construction. Foremost, the district court declined to construe the asserted means-plus-function claims, but simply asserted that “claim 28 is similar to claim 1” and that “claim 1’s limitations are generic” thus “the same logic applies to claim 28.” APPX32-33. VoIP-Pal expressly stated that claim

construction was required (APPX1325); argued that claim construction of “means” claims required application of pre-*AIA* 35 U.S.C. § 112, subparagraph 6 (APPX1315-17); and provided detailed claim construction guidance with reference to Figures 8A-8D. *Id.* at 14 (APPX1315, FN 13). The similarity of claims 1 and 28 is irrelevant given that “means-plus-function” limitations in claim 28 must be interpreted *under § 112* to read on corresponding structures in the specification and equivalents. (APPX1315-17). Claim construction was required and the representative claims were not representative of all of the asserted claims. *Id.* Secondly, the district court did not perform much-needed claim constructions before deciding that “the purported improvements have not been captured in the claim language.” APPX46-47 (Order).

The claimed features and benefits of “user-specific calling” have been discussed herein already. *See supra*. The district court stated that “the ‘815 Patent’s *claim language* contains no mention of these alleged benefits of user-specific calling, such as supporting local public switched telephone network telephone number styles or unconventional styles of calling.” APPX47. While the claims do not recite the *phrase* “user-specific calling” (and thus do not “mention” this benefit *ipsissimis verbis*), that is irrelevant, as is the question of whether the claims recite a particular *example* of user-specific calling. Rather, the question is whether the claim limitations, as understood in light of the specification, “achieve an improvement.”

In *Amdocs*, 841 F.3d 1288 at 1301 and 1303, claims were found to improve “load distribution” and “congestion”—benefits not expressly “mentioned,” but nevertheless achieved, by the claims. The Court stated that these benefits could only be understood by examining the claims “in light of the written description”. *Id.*

While the requirement of user-specific calling is sufficient to provide an “inventive concept,” the claims also capture other improvements to communication technology, for example, “transparent routing,” as described herein. *See supra*. The district court suggests that “transparent routing[s] appear nowhere in the claims” because the claims “do not recite any limitation regarding what the caller specifies, or does not specify, to place a call, nor do the claims refer to a caller making a [public switched telephone network] call without dialing the prefix ‘9’” APPX48. But the court misunderstood the relevance of the cited material. Not dialing a prefix was an illustrative, non-limiting *example* of improving over a prior PBX. *See* APPX1335,38,39 (Third Amended Complaint) at ¶¶ 7, 13-14.

User-specific customization of network functionality has been recognized as a technological improvement eligible under 35 U.S.C. §101. *Bascom Global Internet Servs., Inc. v. AT&T Mobility, LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). As in *Bascom*, the asserted claims implement **customizable, user-specific** calling “versatile enough [to] be adapted to many different users’ preferences”, in a network-based routing controller.

In the alternative, the present Motion to Dismiss should be denied as premature because there are issues of fact in dispute with respect to why the asserted claims provide an “inventive concept” (APPX1305,19-34 (Opposition); APPX1335-39 (Third Amended Complaint) at ¶¶ 7-15)). Moreover, VoIP-Pal proffered expert testimony in order to illustrate that the assertions made and evidence offered in support of VoIP-Pal’s Opposition could be further supported through additional discovery in order explain how the claims differ from what was “well-understood, routine, and conventional to a skilled artisan at the time of the patent”. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

CONCLUSION

For all of the foregoing reasons, VoIP-Pal respectfully requests that this Court vacate the district court’s judgment in favor of Defendants and reverse the district court’s March 25, 2019 order dismissing these actions as to all Defendants.

Dated: June 25, 2019

Respectfully submitted,

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CERTIFICATE OF SERVICE

VoIP-Pal.com, Inc. v. Twitter, Inc., AT&T Corp., Cellco Partnership and Apple, Inc.
Nos. 2019-1808, - 1812, -1813, -1814.

I, Kevin N. Malek, being duly sworn according to law and being over the age of 18, upon my oath depose and say that: On June 25, 2019, I electronically filed the Brief for Appellant with the Clerk of Court using the CM/ECF System, which did send notice of such filing to the following registered CM/ECF users:

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/s/ Kevin N. Malek

Kevin N. Malek

**UNITED STATES COURT OF APPEALS FOR THE
FEDERAL CIRCUIT**

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