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LIMITED.

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

**BROADCOM CORPORATION AND AVAGO
TECHNOLOGIES INTERNATIONAL SALES PTE.
LTD.**

Plaintiffs,

v.

NETFLIX, INC.,

Defendant.

Case No. 3:20-cv-04677-JD

**MEMORANDUM IN SUPPORT OF PLAINTIFFS'
OPPOSITION TO NETFLIX'S MOTION TO
DISMISS UNDER RULE 12(B)(6)**

Date: October 15, 2020

Time: 10:00 a.m.

Dept: Courtroom 11, 19th Floor

Judge: Honorable James Donato

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By mischaracterizing and oversimplifying the claimed technology, offering contrived analogies, and ignoring the pleading standard and the Complaint’s allegations, Netflix asks the Court to apply *Alice* “in a legal vacuum divorced from its genesis,” and “strike down claims covering meritorious inventions.” *See Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting in part and concurring in part). Broadcom¹ asks the Court instead to apply the proper standards—avoiding oversimplification of the patents’ claims and applying the pleading standard to the First Amended Complaint’s well-pleaded allegations—and deny Netflix’s motion.

BACKGROUND

Netflix contends that four of the twelve asserted patents are not patent-eligible under 35 U.S.C. § 101: U.S. Patent Nos. 7,266,079; 8,959,245; 8,270,992; and 6,341,375. As explained below, the challenged patents all relate generally to improving computer and computer networking technology in ways that enhance the functionality of those systems.

A. The ’079 Patent discloses an inventive method for improving the speed and efficiency of data transmission in a computer network.

Claim 1 of the ’079 Patent is directed to improving complex computer networks by balancing data traffic among network links of different speeds, capabilities, and congestion levels (heterogeneous links), that transfer data between the networked computers and other devices. Balancing data traffic over heterogeneous links improves the speed and efficiency of data transmission within the network.

B. The ’245 Patent improves data transmission to a user device through an inventive network management server and provisioning profile.

The claimed method of the ’245 Patent implements a network management (NM) server to determine multiple routes for delivering content requested from a user device (e.g., cell phone,

¹ “Broadcom” refers collectively to Plaintiffs Broadcom Corporation and Avago Technologies International Sales PTE. Limited.

computer, etc.) based on a provisioning profile for the device.² The provisioning profile consists of information such as the user's preferred type of service, desired quality of service (QoS), account information, and/or credit verification information.³ Based on this information, requested content is delivered to the user along the determined multiple routes. The NM server can route the requested content over one primary route, or multiple secondary routes.⁴ And if the QoS on a primary route degrades, it can hand the service off to one or more secondary routes.⁵ This method creates a seamless user experience, improving the reliability of data transmission over the "best effort" model of the prior art, which often dropped data and was not well-suited for real-time multimedia applications.⁶

C. The '992 Patent improves the delivery of quality digital media content in an unstable network by implementing an inventive network resource allocation delivery system.

The '992 Patent presents a specific solution for providing digital media content to a user at a higher quality of service within a dynamic network environment, such as the internet. In particular, the patent claims a portable system and method for evaluating network systems to determine whether utilizing alternate network resources would provide a better quality of service.⁷ For example, a user who values music quantity over music quality may have stored a large quantity of highly compressed (i.e., lower quality) music on a PDA.⁸ Using the claimed invention, the PDA can communicate with a second system on the network to determine whether the second system may be capable of providing music at a higher quality—if so, it can deliver higher-quality content.⁹ This quality-selection can be performed with video or audio media,

² See '245 Patent at 2:15–22.

³ See '245 Patent at 2:29–32.

⁴ See '245 Patent at 2:41–52.

⁵ See '245 Patent at 2:52–59.

⁶ See '245 Patent at 11:14–17, 1:23–35.

⁷ See '992 Patent at 1:58–60, 2:8–32.

⁸ See '992 Patent at 4:52–58.

⁹ See, e.g., '992 Patent at 6:40–49.

1 automatically, without user interaction.¹⁰

2 **D. The '375 Patent enables on-demand delivery of compressed video content to remote**
 3 **locations, using a drive server, a control server, and decoder devices.**

4 In the prior art, video on demand DVD content in a multi-user environment (e.g., an
 5 apartment complex or hotel room) was delivered through use of separate DVD players in each
 6 room or space.¹¹ The '375 Patent solves this problem by enabling delivery of compressed video
 7 content to remote locations.¹² The improved system for delivering digital video content utilizes
 8 specific physical components, including a drive server, a control server, and decoder devices.¹³

9 **ARGUMENT**

10 **A. Legal Standard**

11 **1. 35 U.S.C. § 101 and *Alice***

12 Under 35 U.S.C. § 101, “new and useful process[es], machine[s], manufacture[s], or
 13 composition[s] of matter” are patent-eligible, while “laws of nature, natural phenomena, and
 14 abstract ideas” are not. *Diamond v. Diehr*, 450 U.S. 175, 182, 185 (1981). These exclusions must
 15 be carefully construed, however, “lest [they] swallow all of patent law.” *Alice Corp. Pty. Ltd. v.*
 16 *CLS Bank Int’l*, 573 U.S. 208, 217 (2014). To that end, “an invention is not rendered ineligible
 17 for patent simply because it involves an abstract concept”; rather, “applications of such concepts
 18 to a new and useful end” remain patent-eligible. *Id.* (quotation marks and brackets omitted). The
 19 fundamental question is whether a patent claims “the building blocks of human ingenuity,” in
 20 which case it is not patent-eligible, or “something more,” in which case it is patent-eligible. *Id.* In
 21 *Alice*, the Supreme Court developed a two-step framework for answering that question.

22 *Alice* step one requires determining whether the claims at issue are directed to a patent-
 23 ineligible concept—in this case, an abstract idea. *Id.* The inquiry applies a “filter to claims,

24 ¹⁰ See '992 Patent, claims 2, 3, and 5.

25 ¹¹ See '375 Patent at 1:10–13.

26 ¹² See '375 Patent at 2:1–9.

27 ¹³ See '375 Patent at 1:56–67, claim 15.

considered in light of the specification, based on whether their character as a whole is directed to excluded subject matter.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (emphasis added) (quotation marks omitted). At step one, “oversimplifying the claims should be avoided because at some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Hybrid Audio, LLC v. Asus Computer Int’l*, No. 3:17-cv-05947-JD, 2019 WL 3037540, at *3 (N.D. Cal. July 11, 2019) (alterations and quotation marks omitted) (quoting *Alice*, 573 U.S. at 217). Importantly, claims that “are directed to an improvement to computer functionality versus being directed to an abstract idea” are patentable. *Enfish*, 822 F.3d at 1335. The court looks “to whether the claims in the[] patents focus on a specific means or method that improves the relevant technology.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016). “If the claims are directed to eligible subject matter, the inquiry ends.” *Two-Way Media Ltd. v. Comcast Cable Commc’ns*, 874 F.3d 1329, 1337 (Fed. Cir. 2017); *see also Hybrid Audio, LLC*, 2019 WL 3037540, at *4 (“The *Alice* inquiry ends at step one on this motion because the representative claims are not directed to an abstract idea or other ineligible subject matter. They assert a specific and tangible improvement to computer functionality, namely the processing of audio data, that is not abstract.”).

If the claims are directed to an abstract idea, however, *Alice* step two requires “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 [abstract idea] itself.” *Alice*, 573 U.S. at 217–218 (quotation marks omitted). As with step one, the court may consider a patent’s specification at step two. *See, e.g., Elec. Power Grp., LLC v. Alstom SA*, 830 F.3d 1350, 1355 (Fed. Cir. 2016). Step two’s “only objective is to determine whether the claims attempt to solve a problem.” *Universal Elecs. Inc. v. Roku, Inc.*, No. SACV-18-1580 JVS (ASDx), 2019 WL 1877616, at *7 (C.D. Cal. Mar. 5, 2019).

2. Resolving the § 101 Inquiry at the 12(b)(6) Stage

“[P]atent eligibility can be determined at the Rule 12(b)(6) stage. . . . only when there are

no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). Accordingly, “patentees who adequately allege their claims contain inventive concepts survive a § 101 eligibility analysis under Rule 12(b)(6).” *Id.* at 1126–27; *see also, e.g., Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1320 (Fed. Cir. 2019) (“The district court erred by not accepting Cellspin’s well-pleaded allegations as true with respect to whether its patents capture, transfer, and publish data in a way that is plausibly inventive.”); *Aatrix*, 882 F.2d at 1130 (vacating dismissal under § 101 because: “There are factual allegations in the second amended complaint, which when accepted as true, prevent dismissal pursuant to Rule 12(b)(6).”).

B. The alleged claim of the ’079 Patent is patent-eligible.

1. Claim 1 of the ’079 Patent is not directed to abstract subject matter.

The focus of claim 1 of the ’079 Patent “is on . . . specific asserted improvement[s] in computer capabilities.” *See Enfish*, 822 F.3d at 1336. In particular, the patent improves the speed of computer-driven communication functions by “dynamically balanc[ing] transmission unit traffic in a heterogeneous-link-speed environment” and “affording fault-tolerance in addition to dynamic load balancing.”¹⁴ These improvements provide significant benefits over the then-existing art. For example, the specification explains that maintaining efficient utilization of network resources—especially with regard to bandwidth—was a common problem in communication networks, and that prior art solutions attempted to address this problem by balancing data traffic over *homogenous* network links.¹⁵ But *heterogeneous*-link-speed environments were created when high-performance computing platforms began to use multiple links with different capabilities to communicate with other devices, and when adverse network conditions degraded the performance of one or more links.¹⁶ The ’079 Patent solves the resulting

¹⁴ ’079 Patent at 1:40–42, 7:13–14.

¹⁵ *See* ’079 Patent at 1:23–30.

¹⁶ ’079 Patent at 1:30–39.

bandwidth issues by “providing a method for balancing transmission unit traffic over heterogeneous speed network links.”¹⁷ The patent, therefore, improves “computer functionality itself, not . . . economic or other tasks for which a computer is used in its ordinary capacity.” *See Enfish*, 822 F.3d at 1336; *see also id.* at 1337 (“[T]hat the claims are directed to an improvement of an existing technology is bolstered by the specification’s teachings that the claimed invention achieves other benefits over [prior art solutions].”).

The computer-communications improvements claimed in the ’079 Patent are even more tangible and specific than the invention found non-abstract (and therefore patent-eligible) in *Packet Intelligence LLC v. NetScout Systems, Inc.*, 965 F.3d 1299 (Fed. Cir. 2020). There, the patents-at-issue taught a method for monitoring packets exchanged over a computer network that generated analytics to understand network load and usage. *Id.* at 1303. In particular, “the claimed invention could provide a granular, nuanced, and useful *classification* of network traffic. . . . [T]he metrics made possible by the recited invention improved quality and performance of traffic flows. Specifically, the monitors had an improved ability to *classify* and *diagnose* network congestion” *Id.* at 1308 (emphases added) (docket citations omitted). Rejecting the argument that the asserted claim was directed to the collection, comparison, and classification of information, the district court concluded that it was directed to “solving a discrete technical problem: relating disjointed connection flows to each other.” *Id.* (quotation marks omitted). The Federal Circuit agreed, and affirmed the denial of the patentability challenge at step one. *See id.* at 1309–10. Here, the ’079 Patent is directed to far more than monitoring, classification, and congestion diagnosis—as the claim explains, it both classifies (“disposing,” “grouping,” “determining”), and then uses that information to resolve detected bandwidth issues (“responsive to the traffic metric, regrouping,” “transmitting”). *See also Sycamore IP Holdings LLC v. AT&T Corp.*, 294 F. Supp. 3d 620, 652 (E.D. Tex. Feb. 16, 2018), *aff’d*, 773 F. App’x 624 (Fed. Cir. 2019) (“[C]omputer-driven programs that improve the accuracy, speed, and security of

¹⁷ *See* ’079 Patent at 1:47–49.

communications such as error correction programs, encryption protocols, and methods for synchronizing data . . . have been held to survive section 101 challenges without serious doubts as to their patentability.” (collecting cases)).

Netflix attempts to make claim 1 abstract by likening it to *Two-Way Media* and *CyberSource Corp. v. Retail Decisions, Inc.*, alleging that the claim: (i) is “more generic” than a “method for routing information” in *Two-Way Media*; (ii) does not require a machine; and (iii) is akin to the work of a traffic cop.¹⁸ See Netflix Memo. at 6–7 (citing 874 F.3d at 1337–39; 654 F.3d 1366, 1370, 1372 (Fed. Cir. 2011)). Each assertion is incorrect.

First, Netflix’s attempt to analogize claim 1 to the claim found abstract in *Two-Way Media* depends on Netflix’s characterization of the claimed technology as “directed to redirecting traffic flow based on congestion.” See Netflix Memo. at 6. This strained, oversimplified construction reduces the five-part claim to nothing. In fact, the claimed technology “dynamically balanc[es] transmission unit traffic in a heterogeneous-link-speed environment”—thereby improving the speed and reliability of computer-driven communication functions—by (i) **disposing** transmission units into flows; (ii) **grouping** flows; (iii) **determining** traffic metrics; (iv) dynamically **responding** to traffic metrics in order to **regroup** into second flows in a way that balances traffic; and (v) **transmitting** the second flow over the network link.¹⁹ These tangible, technological improvements claim far more than the information-monitoring and record-collection found abstract in *Two Way Media*. See 874 F.3d at 1337.²⁰

Second, Netflix’s assertion that the claim does not require a machine is both untrue and not outcome dispositive. The claim explicitly requires “balancing transmission unit traffic over

¹⁸ Netflix also suggests that “all of the steps can be performed in the mind’s eye.” Netflix Memo. at 7. Netflix offers no explanation for how a human might mentally balance electronic data traffic over links between computing resources. Indeed, that would be an impossible task. Fraud-detection, by contrast, the method claimed in *CyberSource*, is unquestionably capable of being performed by humans.

¹⁹ See ’079 Patent, claim 1.

²⁰ Further, a claim is not “generic”—whether claim purports to solve a problem by using “generic” components is a step 2 inquiry. See *Alice*, 573 U.S. at 223.

1 **network links**,” components capable of transmitting electronic data between devices within a
 2 computer network. But even if this were not the case, “that [an] improvement is not defined by
 3 reference to ‘physical’ components does not doom the claims”—a contrary conclusion “risks
 4 resurrecting a bright-line machine-or-transformation test.” *Enfish*, 822 F.3d at 1327. Indeed,
 5 *Cybersource*, Netflix’s support for its machine argument, is a pre-*Alice* case that relies on the
 6 outdated machine-or-transformation test. *See Cybersource*, 654 F.3d at 1369.

7 Finally, Netflix’s traffic cop analogy has no place here. “[T]he invention in this case”—
 8 balancing transmission unit traffic in a *computer network*—“has no direct analog outside the
 9 computer-driven communications field,” and certainly cannot be compared to the actions of a
 10 traffic cop on a street at rush hour. *See Sycamore*, 294 F. Supp. 3d at 653. A traffic cop’s work is
 11 not analogous to processing and directing electronic data at the speed required for transmission
 12 in a computer network. *Cf. Cal. Inst. of Tech. v. Hughes Commc’ns*, 59 F. Supp. 3d 974, 994
 13 (C.D. Cal. 2014) (“[A] human could spend months or years writing on paper the 1s and 0s
 14 comprising a computer program and applying the same algorithms as the program[;] [a]t the end
 15 of the effort, he would be left with a lot of paper that obviously would not produce the same
 16 result as the software.”). Netflix’s analogy “abstract[s] away important technical details that
 17 could impact the court’s eligibility decision and . . . [is] contrived [and] reverse-engineered . . .
 18 rather than actual ‘certain methods of organizing human activity.’” *Slyce Acquisition Inc. v. Syte-*
 19 *Visual Conception Ltd.*, No. W-19-CV-00257-ADA, 2020 WL 278481, at *7 (W.D. Tex. Jan. 10,
 20 2020) (quoting *Alice*, 573 U.S. at 220).

21 Claim 1 of the ’079 Patent is not abstract. Rather, the claim is “directed to using [] specific
 22 technique[s] . . . to solve a technological problem arising in computer networks: [maintaining
 23 efficient utilization of network resources, particularly with regard to bandwidth, so that data
 24 traffic is efficiently distributed over the available links between sources and destinations.]” *See*
 25 *SRI Int’l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019) (finding non-abstract
 26 claims directed to using monitors to detect suspicious network activity, generating reports of the
 27

activity, and integrating them). Indeed, “[e]fficient computer processing is indicative of patent-eligible subject matter.” *Hybrid Audio*, 2019 WL 3037540, at *5. The inquiry thus ends at step 1.

2. The alleged claim of the ’079 Patent contains an inventive concept.

Even if the patent were directed to an abstract concept (it is not), Broadcom adequately alleges that it contains an inventive concept. In particular, the Complaint alleges that “[t]he ’079 Patent claims specific, novel ways to solve these technical problems [related to computer network functionality] by dynamically balancing data traffic in a computer networking environment with heterogeneous link speeds,” and that “[t]he claims of the ’079 Patent are directed to new, improved methods and apparatuses for balancing transmission unit traffic over networks links.” FAC ¶ 34; *see also id.* ¶ 35. These allegations are well-supported in the claim.²¹

Netflix’s only acknowledgement of the Complaint’s allegations of inventiveness is to excerpt the statement that the patent “addresses a specific technical problem that arose in the computer networking environment,” and criticize it because “traffic congestion is not a problem unique to computers.” *See* Netflix Memo. at 8 (quoting FAC ¶ 31). But that is not the question. Rather, the inquiry turns on whether Broadcom “adequately allege[d] the[] claim[] contain[s] inventive concepts.” *See Aatrix*, 882 F.3d at 1126. As shown, it did. Broadcom’s well-pleaded Complaint does not fail the pleading standard because Netflix ignores certain allegations.²²

Further, Netflix complains that the claim never explains “how the desired result is achieved.” Netflix Memo. at 8 (quoting *Elec. Power*, 830 F.3d at 1355). Again, Netflix is

²¹ *See* ’079 Patent, claim 1 (“A method for balancing transmission unit traffic over network links comprising” the inventive concepts of “disposing transmission units into flows,” “grouping flows,” “determining a traffic metric representative of a traffic load,” responding to that traffic metric by “regrouping flows,” “balancing the transmission unit traffic,” and then “transmitting” over a selected network link.”).

²² Without support, Netflix repeats its complaint that “[c]laim 1 does not recite any particular hardware or software limitation.” *See* Netflix Memo. at 7. This is both incorrect and irrelevant for the reasons explained above. *See* discussion above at 8. And Netflix’s condemnation of the method’s ability to be run on a general-purpose computer is circular. *See* Netflix Memo. at 7. The non-abstract idea improves computer functioning; it does not depend on a particular type of computer to be inventive. *See Enfish*, 822 F.3d at 1338 (An “invention’s ability to run on a general-purpose computer [does not] doom[] the claims.”).

incorrect. Steps a.–e. of claim 1 explicitly describe “how” transmission unit traffic is balanced over network links. And in any event, whether a patent “teaches an ordinarily skilled artisan how to implement the claimed invention presents an enablement issue under 35 U.S.C. § 112, not an eligibility issue under § 101.” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1261 (Fed. Cir. 2017).

To hold that claim 1 of the ’079 Patent lacks an inventive concept would preclude similarly innovative advances in networked computer efficiency and reliability. Here, the claim requires at least “an arguably inventive distribution of functionality within a network.” *See Elec. Power*, 830 F.3d at 1355. It is therefore patentable. At a minimum, the Complaint’s well-supported allegations are enough to survive dismissal.

C. The alleged claims of the ’245 Patent are patent-eligible.

1. The alleged claims of the ’245 Patent are not abstract.

The ’245 Patent improves the delivery of data content over a complex electronic communications network (e.g., the internet), by utilizing multiple data-delivery routes.²³ The solution requires specific physical components, including a network management (NM) server and a user device (e.g., a cell phone, smartphone, or computer), along with a provisioning profile comprised of user information.²⁴

Netflix’s description of the patent as directed to “routing information based on user information” is an oversimplification reverse engineered from *Two-Way Media*. From the ’245 Patent’s title—Multiple Pathway Session Setup to Support QoS Services—it is clear that the heart of the invention is in determining and selecting multiple pathways as a means to improve the quality of content delivered over an electronic communication network, like the internet.²⁵

²³ See ’245 Patent at 2:41–45.

²⁴ See ’245 Patent at 2:15–22.

²⁵ *Internet Patents Corp. v. Active Network, Inc.* does not stand for the proposition that “consideration of user information in routing is abstract.” *See* Netflix Memo. at 10 (citing 790 F.3d 1343, 1328 (Fed. Cir. 2015)). There, the invention was directed to “retaining information in the navigation of online forms.” *See* 790 F.3d at 1328. Importantly, the specification described

1 The Federal Circuit has “routinely held software claims patent eligible under *Alice* step one
 2 when they are directed to improvements to the functionality of a computer or network platform
 3 itself.” *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1307 (Fed. Cir. 2020). For
 4 example, the claims at issue in *Uniloc* were “directed to a patent-eligible improvement to
 5 computer functionality, namely the reduction of latency experienced by parked secondary
 6 stations in communication systems.” *Id.* at 1307. Critical to its patent-eligibility determination
 7 was the court’s conclusion that “the claimed invention . . . eliminates or reduces the delay
 8 present in conventional systems where the primary station alternates between polling and
 9 sending inquiry messages. . . .[, thereby] chang[ing] the normal operation of the communication
 10 system itself to ‘overcome a problem specifically arising in the realm of computer networks.’”
 11 *Id.* at 1038 (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257–58 (Fed. Cir.
 12 2014)). Here, as there, the claimed invention improves data-transmission quality of service
 13 through the identification and selection of multiple routes, thereby “chang[ing] the normal
 14 operation of the computer network itself.” *Id.* at 1307. Importantly, *Uniloc* distinguished *Two-*
 15 *Way Media*, explaining that rather than “merely recit[ing] generalized steps to be performed on a
 16 computer using conventional computer activity,” the claims at issue in *Uniloc* “change[d] the
 17 manner of transmitting data, result[ing] in reduced response time by peripheral devices which
 18 [we]re part of the claimed system.” *Id.* at 1308. Here, the claims at issue likewise “change the
 19 manner of transmitting data, result[ing] in [higher quality of service] by a [NM server and
 20 provisioning profile] which are part of the claimed system.” *See id.* Also unlike *Two-Way Media*,
 21 the claims “asserted here are directed to a network architecture, and the patents’ specifications
 22 explain how that architecture improves on prior systems.” *See Kove IO, Inc. v. Amazon Web*
 23 *Servs., Inc.*, No. 18 C 8175, 2020 WL 1330386, at *10 (N.D. Ill. Mar. 23, 2020).

24
 25
 26 some of the “most important aspect[s]” of the claimed functionality—the Back and Forward
 27 buttons—as “conventional,” “well-known,” and “common.” *Id.* at 1348.

Netflix’s reliance on *Intellectual Ventures I LLC v. Capital One Bank* is misplaced. *See* Netflix Memo. at 9 (citing 792 F.3d 1363, 1369–70 (Fed. Cir. 2015)). As Netflix acknowledges, the purpose of the claim in *Intellectual Ventures* was to customize the content a user saw on a website based on that user’s information and navigation history—essentially, a form of targeted marketing. *See Intellectual Ventures*, 792 F.3d at 1369. The ’245 Patent is not directed to marketing, and does not customize user content. Rather, it relies upon user data to inform the best route or combination of routes to optimize the delivery of that user’s requested content. This technological improvement over the “best effort” method of the prior art is not abstract.²⁶

Finally, Netflix’s efforts to transform a claim about improving data delivery in a networked environment into human activity fail. Humans have no capability to manipulate the route of the data they request over the internet such that its quality improves. The patent does not claim automating something that otherwise would be manual; it claims enabling something that otherwise would not be possible. *Cf. Cal. Inst. of Tech.*, 59 F. Supp. at 995 (“Pencil-and-paper analysis can mislead courts into ignoring a key fact: although a computer performs the same math as a human, a human cannot always achieve the same results as a computer.”). The inventions claimed in the ’245 Patent “ha[ve] no direct analog outside the computer-driven communications field.” *See Sycamore IP Holdings*, 294 F. Supp. 3d at 653. Like its traffic cop analogy, Netflix’s dinner host analogy is inapt. The ’245 Patent is patent-eligible.

2. The alleged claims of the ’245 Patent contain inventive concepts.

Utilizing a (i) provisioning profile for a client device together with an (ii) NM server to identify and select (iii) multiple routes to deliver content in a quality-enhancing manner that improves upon the then-existing technology is an inventive concept. The claims specify using these three inventive elements to achieve the desired result. And the Complaint adequately

²⁶ *Voip-Pal.com, Inc. v. Apple, Inc.* did not find the claim abstract because it routed based on user characteristics, but because it described the invention in broad, generic terms, and because the claims could be performed by humans. *See* 375 F. Supp. 3d 1110, 1130–1135 (N.D. Cal. 2019). Neither is true of the ’245 Patent.

alleges that the claims contain inventive concepts. *See, e.g.*, FAC ¶ 107 (explaining the “novel solution for transmitting digital media content over a communication network via multiple routes, using a network management server and a provisioning profile,” which was “not well-understood, routine, or conventional at the time . . . because it claims a new and specific improvement over the prior art”); *see also id.* ¶¶ 102–110.

Further, as alleged, “[t]he *ordered combination* of elements in each of claims 3 and 6, in conjunction with the elements of the claim from which they depend, . . . recite unconventional, new, and improved digital media content delivery methods that were not well-understood at the time of the ’245 Patent.” FAC ¶ 110 (emphasis added). In particular, claim 1 requires first gathering provisioning profile information and then using that information to determine the route the content will travel, rather than “deliver[ing] all traffic as soon as possible within the limits of [architectural] abilities.”²⁷ Claims 3 and 6—which specify the particular types of information within the provisioning profile and the method for allocating data traffic between the multiple determined routes, respectively—refine and narrow the inventive solution claimed by the ’245 Patent. These claims further demonstrate that this specific solution amounts to substantially more than the broad abstract notion of routing information based on user information.²⁸

The crux of Netflix’s argument that the claim is not inventive is that it calls for “generic computer components.” *See* Netflix Memo. at 10–11. Netflix misses the point. That computer components may be implicated does not render a claim uninventive; the test is whether a generic computer is merely recited as a tool to apply an abstract idea. *See Alice*, 573 U.S. at 223; *see also Enfish*, 822 F.3d at 1336. Here, as explained, implementation of the claimed technology improves the way computer networking components function; those components are not simply conduits for applying the invention. *See Hybrid Audio*, 2019 WL 3037540, at *6 (“While the

²⁷ ’245 Patent at 1:26–27.

²⁸ The law requires “analyz[ing] whether the claim elements, *either* individually *or* as an ordered combination, contain an inventive concept.” *Visual Memory*, 867 F.3d at 1258 (emphases added) (quotation marks omitted). Here, both are properly alleged.

specification indicates the invention is likely to be ‘implemented on digital computers which may be general purpose computers . . .’, this does not preclude patentability . . . because the claims are directed to an improvement in the functioning of a computer.” (citations omitted)).

Finally, dependent claims 3 and 6—directed to the provisioning profile and network manager—are core inventive concepts. The provisioning profile contains information relevant to the user device requesting content, and enables the network management server to intelligently select the most reliable, best-suited route through the network.

The Complaint contains well-supported allegations that the claim elements and their ordered combination are inventive. It would therefore be error to dismiss for unpatentability.

D. The alleged claims of the ’992 Patent are patent-eligible.

1. The alleged claims of the ’992 Patent are not directed to an abstract idea.

The ’992 Patent is directed to improving the functionality of a communication network used to provide digital media services like video or audio streaming. The patent claims a specific technique for evaluating and selecting content sources—using first and second systems—to provide a higher quality of service when delivering digital media.²⁹

Without analyzing the claim language, Netflix suggests that the Court “boil down” the technology to “switching from lower- to higher-quality media when available.” *See* Netflix Memo. at 14. This would be improper, as the patent is not so broad. Rather, claim 1 is specifically directed to (i) a portable system; (ii) digital media; and (iii) use of bandwidth to make the quality-of-service determination. Because the claim is directed to only these narrow criteria, it does not claim the whole abstract idea of switching from lower- to higher-quality service. Instead, it is limited to a specific implementation of that principle: selecting a source of digital media content for delivery to a portable system based on bandwidth.

Further, what is claimed is not switching generally from lower- to higher-quality service regardless of how the switch is accomplished or what service is sought. Instead, the dependent

²⁹ *See* ’992 Patent at 1:58–67, 2:8–23, claim 1.

claims teach delivering available higher-quality service automatically, where the service is either video or audio media.³⁰ Netflix ignores the limitations of these dependent claims in characterizing the invention. But dependent claims 2, 3, and 5 narrow and define the type of media delivered and the manner of its delivery. *See Visual Memory*, 867 F.3d at 1259 (where “[d]ependent claims 2 and 3 narrow[ed] the cache’s programmable operational characteristic to storing certain types of data . . . and buffering data from certain sources . . .,” “[c]laim 6 recite[d] the fast page mode embodiment with a programmable operational characteristic,” and “dependent claim 7 define[d] the programmable operational characteristic as the type of data to be stored,” “[n]one of the claims recite[d] all types and all forms of categorical data storage.” (patent citations omitted)).

The crux of Netflix’s cited authority reveals the disconnect in its analysis. As explained in *Electric Power*, preemption was a driving concern:

[T]here is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general. . . . Whereas patenting a particular solution would incentivize further innovation in the form of alternative methods for achieving the same result, . . . allowing claims like Electric Power Group’s claims here would inhibit innovation by prohibiting other inventors from developing their own solutions to the problem without first licensing the abstract idea.

830 F.3d at 1356 (quotation marks and alteration omitted); *see also Alice*, 573 U.S. at 216.³¹ But here, as shown, the ’992 Patent claims a “concrete solution to a problem,” namely, using bandwidth in a portable system to evaluate and select a first or second system to provide a higher quality of audio or video service. This “particular solution . . . incentivize[s] further innovation in the form of alternative methods for achieving the same result,” such as selection of content sources based on, for example, memory utilization, disk capacity, packet loss, or latency. *Cf.*

³⁰ *See* ’992 Patent, claims 2, 3, and 5.

³¹ Preemption was likewise the concern in *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1265 (Fed. Cir. 2016) (“[T]he claims are drafted in a way that would effectively cover any wireless delivery of out-of-region broadcasting content to a cellular telephone via a network.”).

Elec. Power, 830 F.3d at 1356 (quotation marks omitted). Indeed, the claims are directed to a “patentable, technological improvement over the [then-]existing [functionality of a communication network used to provide digital media services like video or audio streaming]. The claim uses [bandwidth] in a process specifically designed to achieve an improved technological result in conventional industry practice.” *See McRO*, 837 F.3d at 1316. In so doing, the claims do not preempt approaches that use different criteria. The inquiry ends at step 1.

2. The alleged claims of the ’992 Patent contain inventive concepts.

The ’992 Patent’s claims recite the inventive concepts of evaluating bandwidth to determine whether a second system on a network may be capable of delivering higher-quality content to a user than a first system (claim 1) and delivering such higher-quality video (claim 2) or audio (claim 3) content automatically (claim 5). These claims attempt to solve the problem of delivering low-quality content in unstable network environments by using a quality-of-service-based network resource allocation delivery system. Step two’s “only objective” has therefore been met. *Universal Elecs.*, 2019 WL 1877616, at *7 (step two’s “only objective is to determine whether the claims attempt to solve a problem”). The invention is patent-eligible.

Netflix takes issue with Broadcom’s references to the specification. But as with step one, “[t]he court may consider a patent’s specification in determining whether the claims contain an inventive concept.” *Id.* Here, the specification explains (and the Complaint alleges) that

the resource allocation and utilization can be determined by quality control modules and communication modules. These modules communicate various capability information about the network, such as processing capability, communication capability, and information access capability. The quality control modules can determine whether utilizing resources of another system will provide the service to the user at a higher quality level. If it so determines, a distributing processing module can manage the resource allocation.

FAC ¶ 135 (citing ’992 Patent at 2:8–32). The Complaint continues:

Claim 1 thus recites a novel solution of determining, accessing, and using the resources of another system on a dynamic network environment in order to improve digital media content quality delivered to the user by obtaining the higher quality

content from the second system in a manner that was not well-understood, routine, or conventional at the time of the '992 Patent. In the prior art, among other things, the source of the content remained the same between the two systems, whereas claim 1 claims obtaining the digital media content at a higher quality level from another source, namely the second system.

Id. ¶ 143; *see also id.* ¶¶ 135–141. These allegations are sufficient to plead inventiveness, and are well-supported by the specification and the claim.

Finally, despite criticizing Broadcom's reference to the specification for its proper purpose—as a lens for understanding the claims—Netflix's inventiveness analysis rests on the specification and not the claims. *See* Netflix Memo. at 15. In so doing, it improperly removes the dependent claims from the analysis. As discussed, the video and audio data limitations in claims 2 and 3 narrow and define the type of media delivered and the manner of its delivery. *See Visual Memory*, 867 F.3d at 1259.³² And the automation taught in claim 5 is a properly claimed non-abstract idea that adds to the claim. *See McRO*, 837 F.3d at 1313 (“[P]rocesses that automate tasks that humans are capable of performing are patent eligible if properly claimed.”).

The '992 Patent is not directed to an abstract idea. And Broadcom properly pleaded that the patent includes “something more.” At most, Netflix has raised a fact issue about the patent's inventiveness. Dismissal is therefore inappropriate.

E. The alleged claim of the '375 Patent is patent-eligible.

1. The alleged claim of the '375 Patent is not directed to an abstract idea.

The inventions claimed in the '375 Patent enable delivery of compressed video content to remote locations in a manner that was not possible in the prior art. The patent uses specific physical components—e.g., a drive server, a control server, and decoder devices—to overcome the problem of requiring the video system to exist physically at the user's location.

The significant technical advances claimed by the patent enable businesses to distribute

³² Netflix's reference to whether audio or media services were “novel,” *see* Netflix Memo. at 17, is a § 102 or § 103 argument. *See Diamond*, 450 U.S. at 189–91 (“The question therefore of whether a particular invention is novel is wholly apart from whether the invention falls into a category of statutory subject matter.” (quotation marks omitted)).

1 video content to remotely located users over much greater distances with lower infrastructure
2 and distribution costs than prior art solutions afforded.³³ As the specification makes clear:

3 The objects, features and advantages of the present invention may include
4 providing a video on demand DVD system that may (i) be enabled to have
5 navigation software local to host server, while a remote source decoder is in another
6 room, (ii) be enabled to control a remote source decoder directly, (iii) implement
7 navigation software on a host server and/or (iv) implement a number of shared
8 DVD drivers at a centralized location.³⁴

9 Here again, Netflix tries to fit the patent within the abstract idea exception by describing it
10 broadly as directed to “distributing data through a network.” But this type of overgeneralization
11 is exactly what the Federal Circuit has warned courts not to do: “[D]escribing the claims at such
12 a high level of abstraction and untethered from the language of the claims all but ensures that the
13 exceptions to § 101 swallow the rule.” *Enfish*, 822 F.3d at 1337. Considered in the light of the
14 specification, it is clear that the character of the claims as a whole is directed to a new system,
15 with specific physical components, for delivering video on demand remotely. *See Enfish*, 822
16 F.3d at 1335 (“[T]he ‘directed to’ inquiry applies a stage-one filter to claims, considered in light
17 of the specification, based on whether their character as a whole is directed to excluded subject
18 matter.” (some quotation marks omitted)). This idea is not abstract; it is a concrete technological
19 improvement over the prior art solution: “a separate DVD player . . . in each room.”³⁵

20 Netflix again complains that the claim does not recite “how” to distribute, decode, or
21 present data. But claim 15 explains that data is presented “(A) . . . with a drive server to a control
22 server”; distributed “(B) . . . with said control server to one or more decoder devices”; and
23 decoded “(C) . . . with said one or more decoders.” And again, whether a patent “teaches an
24 ordinarily skilled artisan how to implement the claimed invention presents an enablement issue

25 ³³ *See, e.g.*, ’375 Patent at 4:10–16 (“[I]f a DVD Player costs \$500, and the per location
26 solution of the present invention is \$150 per location a significant cost savings to implement
27 DVD in each location may result.”).

28 ³⁴ ’375 Patent at 2:1–9.

³⁵ *See* ’375 Patent at 1:11–13.

under 35 U.S.C. § 112, not an eligibility issue under § 101.” *Visual Memory*, 867 F.3d at 1261.

The specification makes clear that the inventors viewed their innovation as the creation of a system enabling delivery of compressed video content to remote locations. “*Alice* requires no more from the claims or the specification to support [the] conclusion that the claims are not directed to an abstract idea.” *Id.*

2. The alleged claim of the ’375 Patent contain an inventive concept.

The ’375 Patent envisions an inventive way of distributing encoded streams of data, as opposed to physical media or analog video signals, to remote locations using a particular arrangement of devices—a drive server, a control server, and decoder devices. For example, the patent teaches that the remote decoder devices may be simplified (and hardware costs lowered) by centralizing some of the capabilities at a central server:

A cost savings may result by having the navigation software for all the decoders 120 in each of the remote decoders 114 a-114 n run on the server 102. The user may be given a DVD control template to select a particular option. Since most of the processing may be done by the server 102, the remaining needs for the remote decoders 114 a-114 n may be limited.³⁶

The patent also foresaw the benefit of distributing the compressed data streams using a control server to solve certain bandwidth capability issues.³⁷ The Complaint sufficiently pleads these inventive elements:

The ’375 Patent claims specific ways to solve these technical problems [of ensuring delivery of compressed video content to multiple remote end user locations] with a video on demand system that is centrally managed and implemented by a *drive server, a control server, and one or more decoder devices*. Each of these servers can process one or more compressed video streams in response to one or more request signals initiated by a user requesting a video.³⁸

FAC ¶¶ 169–70 (emphasis added); *see also id.* ¶¶ 166, 168, 172.

Netflix argues that these concepts are not inventive because they are “generic.” *See* Netflix

³⁶ *See* ’375 Patent at 3:35–41.

³⁷ *See* ’375 Patent at 5:13–38.

³⁸ Netflix’s statement that the only allegation regarding inventiveness is the use of a “novel solution of a drive server” is therefore false. *See* Netflix Memo. at 19 (quoting FAC ¶ 172).

1 Memo. at 19. Netflix narrowly focuses on the devices rather than the solution they implement.
 2 The Federal Circuit’s opinion in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288
 3 (Fed. Cir. 2016) is instructive. There, the patent-at-issue concerned merging data in a network-
 4 based filtering and aggregating platform as well as enhancing networking accounting data
 5 records. *Id.* at 1291. The claim recited

6 1. A computer program product embodied on a computer readable storage medium for
 7 processing network accounting information comprising: computer code for receiving
 8 from a first source a first network accounting record; computer code for correlating
 9 the first network accounting record with accounting information available from a
 10 second source; and computer code for using the accounting information with which
 the first network accounting record is correlated to enhance the first network
 accounting record.

11 *Id.* at 1299. The district court concluded that the claim was directed to an abstract idea without
 12 an inventive “something more.” *Id.* But the Federal Circuit reversed, finding the claim contained
 13 an inventive concept, despite potentially generic components. *Id.* at 1300–01. Here, as there, the
 14 claim “entails an unconventional technological solution ([enabling delivery of compressed video
 15 content to remote locations]) to a technological problem ([requiring a decoder and video system
 16 to be physically located at each user’s location]). The solution [may] require[] arguably generic
 17 components, including [computers and televisions]. However, the claim’s limitations [involving
 18 using a drive server, a control server, and a decoder to enable content delivery remotely] operate
 19 in an unconventional manner to achieve an improvement in . . . functionality.” *Id.* Like the
 20 *Amdocs* claims, the ’375 Patent’s claims are inventive.

21 CONCLUSION

22 None of the four challenged patents is directed to an abstract idea. As a result, each is
 23 patent-eligible at *Alice* step one. Further, each of the claims recites inventive concepts, as
 24 pleaded in the Complaint, thereby satisfying step two. Broadcom therefore asks the Court to
 25 deny Netflix’s motion to dismiss.

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