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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/144,389	05/02/2016	Brian C. DeFrancesco	257.26-US-C2	9073
105454	7590	02/03/2020	EXAMINER	
Gates & Cooper LLP - Viant Howard Hughes Center 6060 Center Drive, Suite 830 Los Angeles, CA 90045			WALSH, JOHN B	
			ART UNIT	PAPER NUMBER
			2451	
			NOTIFICATION DATE	DELIVERY MODE
			02/03/2020	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BRIAN C. DEFRANCESCO,  
TIMOTHY C. VANDERHOOK, and  
CHRISTOPHER J. VANDERHOOK

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Appeal 2019–000516  
Application 15/144,389<sup>1</sup>  
Technology Center 2400

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Before ALLEN R. MACDONALD, MICHAEL J. ENGLE, and  
IFTIKHAR AHMED, *Administrative Patent Judges*.

AHMED, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–12, which are the only claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM IN PART and enter a NEW GROUND OF REJECTION UNDER 37 C.F.R. § 41.50(b).

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<sup>1</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). According to Appellant, Viant Technology LLC is the real party in interest. Appeal Br. 1.

*Technology*

The application “relates generally to identifying users on a network, and in particular, to a method, apparatus, and article of manufacture for identifying households for online measurement and dynamic content delivery.” Spec. ¶ 5.

*Illustrative Claims*

Claims 1 and 3 are illustrative and are reproduced below with certain limitations at issue bolded and italicized:

1. A system for identifying an internet connected household (ICH), comprising:

a computer comprising a processor and an Internet connection;

an *Internet entity* executed by the processor on the computer:

receiving an Internet Protocol (IP) address via the Internet connection;

determining a device activity status based on whether device activity from the IP address does not exceed a defined activity threshold;

determining an IP assignment age status based on whether an IP assignment age for the IP address is greater than a defined threshold age; and

based on the device activity status and the IP assignment age status, ***determining whether the IP address is associated with an ICH.***

3. The system of claim 1, wherein the Internet entity:

***determines*** a residential internet service status based on whether the IP address belongs to an Internet Service Provider (ISP) that provides residential internet service; and

wherein, the Internet entity *determines* whether the IP address is associated with an ICH further based on the residential internet service status.

### *Rejection*

Claims 1–12 stand rejected under 35 U.S.C. § 101 as being directed to ineligible subject matter without significantly more. Final Act. 2–5.

### ISSUE

1. Did the Examiner err in concluding that claims 1–12 are directed to ineligible subject matter without significantly more under § 101?

### ANALYSIS

#### *§ 101 Rejection*

Section 101 defines patentable subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” *See* 35 U.S.C. § 101. The Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). To determine patentable subject matter, the Supreme Court has set forth a two part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014).

“The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to [section] 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “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*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). 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.” *Id.* at 217–18 (quotation omitted).

The U.S. Patent & Trademark Office has published revised guidance on the application of § 101. *See* USPTO, *2019 Revised Patent Subject*

*Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”).

Under that guidance, we look to whether the claim recites

- (1) a judicial exception, such as a law of nature or any of the following groupings of abstract ideas:
  - (a) mathematical concepts, such as mathematical formulas;
  - (b) certain methods of organizing human activity, such as a fundamental economic practice; or
  - (c) mental processes, such as an observation or evaluation performed in the human mind;
- (2) any additional limitations that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h));<sup>2</sup> and
- (3) any additional limitations beyond the judicial exception that, alone or in combination, were not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)).

*See* Guidance 52, 55, 56. Under the Guidance, if the claim does not recite a judicial exception, then it is eligible under § 101 and no further analysis is necessary. *Id.* at 54. Similarly, under the Guidance, “if the claim as a whole integrates the recited judicial exception into a practical application of that exception,” then no further analysis is necessary. *Id.* at 53–54.

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<sup>2</sup> This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* Guidance 54–55.

*A) Claim 1*

The Examiner concludes that claims 1–12 are directed to patent-ineligible subject matter. Final Act. 2–5. The Examiner determines that “[t]he claims are directed to the abstract idea of ‘identifying an internet connected household comprising . . . receiving an Internet Protocol (IP) address, determining a device activity status based on . . . , determining an IP assignment age status based on . . . , based on the device activity status and IP assignment age status, determining whether the IP address . . . ,’” an “abstract idea similar to that of [o]btaining and comparing intangible data.” *Id.* at 3. The Examiner determines that “[a]ll claimed elements are directed to an idea standing alone such as an uninstiated concept, plan or scheme as well as mental process.”<sup>3</sup> *Id.*

The Examiner further determines that the additional claim elements “amount to no more than: i) mere instructions to implement the idea on a computer/device, and/or ii) recitation of generic computer/device structure that serves to perform generic computer/device functions that are well-understood, routine, and conventional activities previously known to the pertinent industry.” *Id.* Viewed as a whole, the Examiner concludes, “these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.”

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<sup>3</sup> *Id.* (citing *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011); *In re BRCA1- & BRCA2-Based Hereditary Cancer Test Pat. Litig.*, 774 F.3d 755 (Fed. Cir. 2014); *SmartGene, Inc. v. Adv. Biological Labs., SA*, 555 F. App’x 950 (Fed. Cir. 2014); and *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343 (Fed. Cir. 2014)).

*Id.* at 3, 4. The Examiner also finds that the additional limitations recited in dependent claims 2–12, “individually and in combination,” recite purely generic computer functions that do not amount to significantly more than the abstract idea recited in independent claim 1. *Id.* at 4.

Appellant argues that the claims recite “an actual computer with a processor and an Internet connection,” and at least the step where “the IP address is received at an Internet entity that determines the residential internet service status” cannot be performed by the human mind. Appeal Br. 6. Appellant further argues that “determining a device activity status, and an IP assignment age status also cannot be performed by the human mind.” *Id.* Attempting to distinguish the Federal Circuit’s decision in *CyberSource*, Appellant argues that unlike “a list of credit card transactions [that] could be written using a pen and paper,” “[t]here is no practical or feasible manner to perform [the presently claimed] steps in the human mind using a paper and pencil.” Reply Br. 2. The claims here, Appellant argues, “are not directed towards one of the examples [of abstract ideas] accepted by the courts,” and therefore, are not within one of the judicial exceptions. Appeal Br. 6.

Appellant further argues that “even assuming *arguendo* that the claims are directed towards such a judicial exception, . . . the claims as a whole amount to significantly more than the exception” because they recite “an ***Internet entity*** receives an ***IP address*** and performs various actions in a combined effort to determine whether that IP address is associated with an Internet connected household (ICH).” *Id.* at 7 (emphasis added). Unlike a generic computer, Appellant argues, such an ***Internet entity*** is “a computer that receives an IP address, maintains various items (i.e., information about

ISPs, a defined activity threshold, and a defined threshold age), and processes such information in a manner and using particular criteria to determine whether an IP address is associated with a household that is internet connected.” *Id.* According to Appellant, the claimed Internet entity is “not a generic computer that is routine and conventional in the field, but instead has a specific limitation that is unconventional and confines the claims to a particular useful application/apparatus.” *Id.*

Appellant further argues that “determining whether a specific IP address is associated with an ICH is clearly an improvement over prior computing devices that were unable to make such a determination.” *Id.* at 10. Appellant contends that “the present claim and technology recited therein is wholly and completely lacking from the prior art as evidenced by the lack of any rejection based on the prior art.” *Id.* Appellant argues that the Specification discusses “additional processing that is performed that was not possible in the prior art (e.g., measuring the household’s exposure to content from a specific content owner, creating a data store based on device activity, selecting and delivering additional content to a device in an ICH, etc.),” and “[s]uch improvements are more than well-understood, routine, convention activity previously known in the industry.” *Id.* (citing *Berkheimer v. HP, Inc.*, 881 F.3d, 1360 (Fed. Cir. 2018)).

For the reasons discussed below, we are not persuaded that the Examiner has erred.

*B) USPTO Step 2A, Prong 1*

Claim 1 recites, in part, (A) “receiving an Internet Protocol (IP) address via the Internet connection”; (B) “determining a device activity status based on whether device activity from the IP address does not exceed

a defined activity threshold”; (C) “determining an IP assignment age status based on whether an IP assignment age for the IP address is greater than a defined threshold age”; and (D) “determining whether the IP address is associated with an ICH” “based on the device activity status and the IP assignment age status.” Appeal Br. 18. Steps (A)–(C), which require receiving an IP address and collecting additional information such as activity and assignment age information for that IP address, are merely data-gathering steps, which cannot alone confer patentability. *See CyberSource*, 654 F.3d at 1372. Step (D) recites determining whether an IP address is assigned to household based on activity related to that IP address. The Specification discusses that significant activity, i.e., above a threshold level, from a single IP address means that the IP address is *not* for a household and instead belongs to “businesses and other organization[s].” Spec. ¶¶ 51–53. Similarly, the Specification explains that the “stickiness” or age of the IP assignment is a good measure of whether an IP address belongs to a household because household modems are not reset very often. *Id.* ¶¶ 45–46. At a high level, therefore, step (D) simply recites determining whether an identifier is assigned to a household or a business based on collected activity data, which is a process that can be performed within the human mind (e.g., a person viewing activity around a physical building to determine if that address belongs to a business facility or a residence) or with a pen and paper. *See CyberSource*, 654 F.3d at 1372 (reasoning that when a person may implement claimed steps by simply writing down the claimed data elements, those steps can all be performed in the human mind); *see also Univ. of Utah Research Found. v. Ambray Genetics Corp.*, 774 F.3d 755, 763 (Fed. Cir. 2014) (finding claims to comparing BRCA sequences, where such

comparison can practically be performed in the human mind, to be directed to an abstract idea); Guidance 52 & n.14 (listing cases).

Therefore, on the record before us, we determine that the Examiner's articulated reasoning is sufficient on USPTO Step 2A, Prong 1, and that claim 1 recites a mental process, which is an abstract idea.

*C) USPTO Step 2A, Prong 2*

The analysis under prong 2 considers the claim as a whole, i.e., “the limitations containing the judicial exception as well as the additional elements in the claim besides the judicial exception need to be evaluated together to determine whether the claim integrates the judicial exception into a practical application.” October 2019 Patent Eligibility Guidance Update, at 12, available at <http://www.uspto.gov/PatentEligibility>. Claim 1 does not include any additional elements that meaningfully limit the claimed invention beyond the abstract idea.

Appellant argues that because the claims, including claim 1, are limited to using information related to *IP addresses* in determining whether an IP address is associated with a household, the claims are not directed to an abstract idea and Step 2A has not been satisfied. Appeal Br. 6. Appellant contends that an “IP address is received at an Internet entity that determines the residential internet service status—a step that requires the computer—something that cannot be performed by the human mind.” *Id.* We agree with Appellant that the claims are not as broad as the abstract idea underlying them, which could apply to the identification of a household using any type of identifier. All the IP address restriction does, however, is “confine the abstract idea to a particular technological environment,” and “merely limiting the field of use of the abstract idea to a particular existing

technological environment does not render the claims any less abstract.” *See Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258–59 (Fed. Cir. 2016); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) (“An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.”). The elements of claim 1 therefore fail to provide any meaningful limitation beyond generally linking the use of the abstract idea to a particular technological environment.

Appellant further argues that “the claimed steps of determining whether the IP address is associated with an ICH is an improvement over prior art analysis of IP addresses and realizes an improvement in computer functionality.” Appeal Br. 10. In other words, Appellant argues, “the present claims provide a solution to problems that could not be overcome and were not possible in the prior art.” Reply Br. 5. For example, Appellant argues, the claimed determinations allow the invention to “overcome prior [art] determinations that are misinterpreted when a household restarts a modem often, two IP addresses from the same ISP are repeatedly used, the IP addresses increase and reflect an IP may be assigned to a new user, etc.” *Id.* (citing Spec. ¶¶ 67–70). Yet, Appellant’s argument is not commensurate with the scope of claim 1, which is not limited to such IP address manipulations and specific device operations. Claim 1 instead broadly recites determining assignment age and activity related to a given IP address based on a simple threshold. As the Examiner correctly points out, there are no “specific elements or algorithms within the claims [that] provide the ‘improvement’” proposed by Appellant. Ans. 3.

Even when considered as a combination of its elements, claim 1 is directed at nothing more than the abstract idea of determining whether an identifier is assigned to a household based on collected activity data related to that identifier. Thus, we agree with the Examiner that “Appellant has not identified a specific improvement to an actual computer (such as faster processing, etc.)” to which claim 1 is directed (Ans. 3), and claim 1 does not integrate the judicial exception into a practical application. *See* Guidance 54–56; *see also* MPEP § 2106.05(a)–(c), (e)–(h).

*D) USPTO Step 2B*

Lastly, we agree with the Examiner that the claimed “Internet entity” functions the same as a generic computer in “receiving information (IP address) and processing it,” and claim 1 “does not recite any particular machine and . . . features [that] the machine comprises to carry out ‘significantly more’” than the abstract idea. Ans. 4. The Specification explains that “any type of computer, such as a mainframe, minicomputer, or personal computer, or computer configuration, such as a timesharing mainframe, local area network, or standalone personal computer, could be used with the present invention.” Spec. ¶ 72. As the Federal Circuit has held, “the use of conventional computer components, such as a database and processors, operating in a conventional manner” “do[es] not confer patent eligibility.” *Intellectual Ventures*, 792 F.3d at 1371; *CyberSource*, 654 F.3d at 1375 (merely claiming a software implementation of a purely mental process that could otherwise be performed without the use of a computer does not alter the method’s unpatentability under 35 U.S.C. § 101). This is because “mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.”

*Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017). We therefore determine that claim 1 does not add significantly more to the patent-ineligible abstract idea.

*E) Claim 2*

Appellant argues that claim 2 “provides the further limitations that the IP address is attached to an *HTTP request* received by the Internet Entity and further that the Internet entity has a *web server*.” Appeal Br. 11 (emphasis added). According to Appellant, “[s]uch claim limitations provide further hardware limitations and set forth functionality of the Internet Entity and web server that was not possible in prior art web servers,” and is “not well-understood, conventional, or routine in the prior art.” *Id.*

The Examiner finds that when given the broadest reasonable interpretation, the additional limitation of a web server can be interpreted as drawn to software. Ans. 3–4. The Examiner further points out that the Specification discloses that web standards such as HTTP are standards supported on the Internet. *Id.* (citing Spec. ¶¶ 12–14, 17). Thus, the Examiner determines, claim 2 “do[es] not recite any particular additional structural features or functional features that would render the ‘web server’ to be significantly more than a generic computer (‘web server’) performing generic computer functions.” *Id.*

We agree with the Examiner that web-based protocols and web servers are well-understood, routine and conventional computer functions. *See* Spec. ¶ 17. Claim 2 requires nothing more than using a conventional computer and web server operating according to their ordinary functions. *See, e.g., Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d

1329, 1341 (Fed. Cir. 2017) (holding that a claim requiring “processing data streams, transmitting them from ‘an intermediate computer,’ and then confirming certain information about the transmitted data” fails to add significantly more to the claimed abstract idea). As the Examiner correctly points out, the Specification relies on conventionally known web servers by explaining that it “is typically a program such as MICROSOFT’S INTERNET INFORMATION SERVER™.” Spec. ¶ 37. We therefore determine that the additional limitations of claim 2, whether considered individually or as an ordered combination, also do not add significantly more to the patent-ineligible abstract idea recited in claim 1.

*F) Claims 3–5*

Claim 3 recites “determin[ing] a residential internet service status based on whether the IP address belongs to an Internet Service Provider (ISP) that provides residential internet service.” Appeal Br. 18–19. Appellant argues that that limitation extends beyond the mere evaluation of an IP address, to “services that an ISP provides in order to determine whether the IP address is from an Internet connected household (ICH).” *Id.* at 11. Appellant further argues “[s]uch an evaluation extends well beyond something that is well-understood, routine, and conventional.” *Id.* at 12.

The Examiner finds that the “claimed steps do not provide significantly more than the abstract idea of ‘comparing’ intangible data or information to control data (i.e. comparing IP address/test data to control data/ISP),” “and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment.” Ans. 5.

We are persuaded that the Examiner has erred. We agree with the Appellant that the additional limitations of claim 3 impose a meaningful

limit beyond generally linking the use of the abstract idea to a particular technological environment, and therefore, claim 3 integrates the judicial exception into a practical application. *See* Guidance 54–55.

Claim 3 recites that the determination of whether an IP address is associated with an ICH is done based on the determination of a “residential internet service status,” which in turn is determined based on “whether the IP address belongs to an Internet Service Provider (ISP) that provides residential internet service” (Appeal Br. 18), thereby requiring a specific method, with additional determinations to be made with respect to a given IP address rather than relying merely on collected activity data. The Specification explains that such information may be obtained from a regional Internet registry (RIR) using specific Internet related resources. Spec. ¶¶ 48–50, Fig. 4. The claim language, when read in view of the Specification, thus supports that claim 3 is limited to the technical field of determining whether an IP address is assigned to a household based on whether the IP address belongs to an Internet Service Provider (ISP) that provides residential internet service.

Because claim 3 *as a whole* integrates the recited abstract idea into a practical application of that idea, under the Guidance, it is not “directed to” the recited abstract idea and thus qualifies as eligible subject matter under § 101. The Examiner thus erred in rejecting claim 3. Because claims 4 and 5 depend on claim 3, we also do not sustain the rejection of those claims under § 101.

*G) Claim 6*

Appellant argues that claim 6 recites “monitoring activity from the IP address over a defined period of time,” and “[t]here is no possible way to

actually monitor activity coming from an IP address using only the human mind and a pen/pencil,” and that “such a step extends well beyond the functioning of a standard computer.” Appeal Br. 13. “Appellant questions whether a generic computer can actually monitor the level of activity coming from a particular IP address.” Reply Br. 8. Further, Appellant argues, “nowhere in the cited art or any of the case law to date has there been any type of determination of what the standard level of activity is for a household,” and therefore, “such steps are [not] well understood or conventional.”

The Examiner finds that claim 6, which depends on claim 1, is also directed to well-understood, routine and conventional computer functions such as “receiving or transmitting data over a network (e.g. using the Internet to gather data).” Ans. 7.

We are not persuaded that the Examiner has erred. We agree with the Examiner that “monitoring activity from the IP address over a defined period of time” merely requires using the Internet to gather activity data. The Specification also fails to provide details on how such monitoring is done. *See* Spec. ¶¶ 51, 53. As discussed above, data-gathering steps, such as the “monitoring activity” limitation here, cannot alone confer patentability. *See CyberSource*, 654 F.3d at 1372.

With regard to the limitation “determining the defined activity threshold for a level of activity for internet connected households,” the claim fails to provide any detail regarding *how* that determination is made. As the Specification explains, “any other method may be used to determine the activity threshold (e.g., a *user specified* level of activity, an *ISP specified* level of activity, etc.).” Spec. ¶ 66 (emphasis added). The determining

limitation therefore fails to add any specialized programming or algorithm to the claimed invention. We therefore determine that the additional limitations of dependent claim 6, whether considered individually or as an ordered combination, do not add significantly more to the patent-ineligible abstract idea recited in claim 1.

*H) Claim 7*

Claim 7 depends from independent claim 1 and recites “*filtering out* the non-household and the additional IP address from further processing.” Appeal Br. 20 (emphasis added). Appellant argues that “such [a] claim step serves to stop further processing (with respect to a particular IP address) once it is determined that the IP address is associated with a non-household.” *Id.* at 14. According to Appellant, “the ability to actually stop and/or filter an IP from further processing based on a particular monitored activity from a particular IP address is not something that can be performed in a human mind because the human mind cannot provide internet service, nor can the human mind (i.e., using a pen and paper) monitor device activity from such an IP address.” *Id.*

The Examiner finds that claim 7 also recites “a well-understood, routine and conventional function than can be performed by a generic computer.” Ans. 8.

We are not persuaded that the Examiner has erred. The determination step recited in claim 7 is similar to the one recited in claim 1, except it is based on activity data alone. Appellant’s argument that the human mind cannot stop computer processing misses the point. If a claim, under its broadest reasonable interpretation, covers performance in the mind (or with a pen and paper) but for the recitation of generic computer components, then

it is still in the mental processes category. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”). For example, a neighborhood watch volunteer might watch various buildings to see if any were being used as a business, yet stop watching a particular building once it was confirmed to be solely residential. Appellant fails to sufficiently explain why discontinuing processing of an IP address is not a well-understood, routine, and conventional computer function. We therefore determine that the additional limitations of dependent claim 7, whether considered individually or as an ordered combination, also do not add significantly more to the patent-ineligible abstract idea recited in claim 1.

*I) Claim 8*

Appellant argues that “claim 8 is directed towards combining different IP addresses and calculating an IP assignment age based on the combination (followed by a comparison of that age to a threshold),” and “such a combining process based on whether IP addresses have been reassigned is not possible in the human mind.” Appeal Br. 14. According to Appellant, “[g]eneric computers without specific functions do not have the capability to actually observe a number of different IP addresses from an ISP, calculate an IP assignment age for the IP address by monitoring the number of IP addresses to see if they have been reassigned, and determining that the IP assignment age is greater than a threshold.” Reply Br. 9.

The Examiner finds that “claimed steps appear to be further processing of the intangible data via a conventional computer and do not provide significantly more.” Ans. 8.

We are not persuaded that the Examiner has erred. Claim 8 recites more steps directed at collection of data similar to Steps (A)–(C) in claim 1. The determination of the IP assignment age is nothing more than tracking “when one or more of the number of IP addresses have been reassigned”—a task that can be accomplished with a pen and paper. We therefore determine that the additional limitations of dependent claim 8, whether considered individually or as an ordered combination, also do not add significantly more to the patent-ineligible abstract idea recited in claim 1.

*J) Claim 9*

Appellant argues that determining that “two IP addresses belonging to the ISP are connected when a user has generated activity from both the two IP addresses” is not abstract because a “human mind cannot generate activity from two IP addresses.” Appeal Br. 15. Appellant contends that claim 9 “provide[s] an improvement over a standard computer — i.e., a computer that has the ability to determine when two different IP addresses are used and activity from the same user is received from the two IP addresses.” *Id.*

The Examiner determines that “[t]he limitations of the claim do not appear to provide anything more than the abstract idea of the independent claim of comparing intangible data.” Ans. 9.

We are not persuaded that the Examiner has erred. Appellant fails to sufficiently explain why tracking activity from two IP addresses is in any way different from tracking activity from one IP address. For example, a neighborhood watch volunteer might track various categories of related

activities to see if any of the buildings were being used as a business. We agree with the Examiner that dependent claim 9 is also directed at collection and analysis of additional data, and the additional limitations of claim 9, whether considered individually or as an ordered combination, do not add significantly more to the patent-ineligible abstract idea recited in claim 1.

Because Appellant does not separately argue the Examiner's § 101 rejection of claim 10, we also sustain the rejection of that claim under § 101.

*K) Claims 11 and 12*

Claim 11 recites that “the Internet entity measures the ICH’s exposure to content from a specific content owner,” (Appeal Br. 21), which Appellant argues “provides a competitive advantage for the Internet entity over other products by enabling a specific content owner to determine how much/little exposure of his/her content has been provided (and whether to change the exposure amount).” *Id.* at 15.

Claim 12 recites “creat[ing] a data store based on the device activity from the ICH” and “dynamically select[ing] content to be delivered to the device.” *Id.* at 21. Appellant argues that “similar to claim 11, in addition to determining whether an IP address is associated with an ICH, claim 12 provides for using such a determination to actually create a data store and dynamically select/deliver content to a device based thereon.” *Id.* at 16. Thus, Appellant argues, claims 11 and 12 “add[] more and provide[] a meaningful limitation that transforms any alleged abstract idea into a patent eligible application.” *Id.* at 15–16.

The Examiner finds that claims 11 and 12 “do not move beyond a general link of the use of an abstract idea to a particular technological environment.” Ans. 9.

We are persuaded that the Examiner has erred. As with claim 3, discussed above, we agree with the Appellant that the additional limitations of claims 11 and 12 impose a meaningful limit beyond generally linking the use of the abstract idea to a particular technological environment, and therefore, claims 11 and 12 each integrate the judicial exception into a practical application. *See* Guidance 54–55.

Claim 11 recites measuring the ICH’s exposure to content from a specific content owner, and claim 12 recites selecting content to be delivered to a device (Appeal Br. 18), thereby applying the determination made with respect to a given IP address in a specific useful manner. The Specification explains that the identification of households may be used for online media measurements, including “website analytics, consumer interests and profiling, purchase activity, social activity and dynamic content delivery including but not limited to media (music, video, or any multimedia digital streaming format), advertisements, and text/graphic content (articles, links, images, animations, etc.).” Spec. ¶ 18. The Specification further explains that the measurement of exposure to specific content enables “measurement of ICH reach/exposure, advertising return on investment (ROI), and de-duplicated visitation statistics.” *Id.* ¶¶ 60–61. Similarly, selection of content to be delivered “can serve to optimize the placement, order, and display of such content, and provide recommendations to household users.” *Id.* ¶ 62.

The claim language, when read in view of the Specification, thus supports that claims 11 and 12 are limited to the technical field of using ICH identification to measure exposure to content and to select content to be delivered. Because claims 11 and 12 integrate the recited abstract idea into a practical application of that idea, under the Guidance, they are not “directed

to” the recited abstract idea and thus qualifies as eligible subject matter under § 101. The Examiner thus erred in rejecting claims 11 and 12 under § 101.

*L) Summary*

We sustain the rejection of claims 1, 2, 6–10 under § 101, but do not sustain the rejection of claims 3–5, 11, and 12 under § 101.

REJECTION UNDER 37 C.F.R. § 41.50(b)

*35 U.S.C. § 112*

During prosecution of a patent application, a proposed “claim is indefinite when it contains words or phrases whose meaning is unclear,” i.e., “ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention.” *In re Packard*, 751 F.3d 1307, 1310–11 (Fed. Cir. 2014) (per curiam); *see also In re McAward*, No. 2015-006416, 2017 WL 3669566, at \*3 (PTAB Aug. 25, 2017) (precedential). A claim is also indefinite when it recites both an apparatus and a method step of using the apparatus. *See IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005) (a single claim reciting “both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. [§] 112, second paragraph”).

Using our authority under 37 C.F.R. § 41.50(b), we enter a new ground of rejection for claims 1–12 as being indefinite under 35 U.S.C. § 112, second paragraph. Independent claim recites “A **system** . . . comprising: . . . an Internet entity **executed** by the processor on the computer,” and also recites “**receiving** an Internet Protocol (IP) address,” “**determining** a device activity status,” and “**determining** an IP assignment

age status.” Appeal Br. 18 (emphasis added). Claim 1 is an apparatus claim, but it includes method steps that are not tied to a structure, i.e., the claim recites a step that is “executed,” and steps of “receiving” and determining.” We find the claim indefinite because the claim recites an apparatus and a method of using the system, such that “it is unclear whether infringement . . . occurs when one creates [the device] or . . . when the user actually uses [the device].” See *IPXL Holdings*, 430 F.3d at 1384.

Claims 2–12 depend from claim 1 and are rejected as indefinite for the same reasons. Moreover, these dependent claims recite additional method steps that are not tied to a structure, that also render these claims ambiguous. Claim 3, for example, recites a step that “*determines* a residential internet service status” and “*determines* whether the IP address is associated with an ICH.” Appeal Br. 18–19 (emphasis added). Likewise, claim 11 recites “the Internet entity *measures* the ICH’s exposure to content from a specific content owner.” *Id.* at 21 (emphasis added). Claim 12 recites “wherein the Internet entity: *creates* a data store based on the device activity from the ICH, wherein the data store comprises interests, activity, and actions from a device; and based on the data store, dynamically *selects* content to be delivered to the device.” *Id.* (emphasis added).

Thus, we enter a new ground of rejection that claims 1–12 are indefinite under 35 U.S.C. § 112, second paragraph for failure to particularly point out and distinctly claim the subject matter regarded as the invention.

#### DECISION

For the reasons above, we *affirm* the Examiner’s decision rejecting claims 1, 2, 6–10 under § 101 but *reverse* the Examiner’s rejection of claims

3–5, 11 and 12 under § 101. In a new ground of rejection, we reject claims 1–12 under 35 U.S.C. § 112.

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>	<b>New Ground</b>
1–12	101	Ineligible subject matter	1, 2, 6–10	3–5, 11, 12	
	112	Indefiniteness			1–12
<b>Overall Outcome</b>			1, 2, 6–10	3–5, 11, 12	1–12

#### FINALITY AND RESPONSE

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.” Section 41.50(b) also provides that Appellant, **WITHIN TWO MONTHS FROM THE DATE OF THE DECISION**, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

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Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

No time for taking subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED IN PART; 37 C.F.R. § 41.50(B)