IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

THROUGHTEK CO., LTD.,

              Plaintiff,

        v.

REOLINK INNOVATION INC., REOLINK
INNOVATION CO., LTD. (CHINA),
AMAZON.COM INC., HOME DEPOT USA,
INC., LOWE'S HOME IMPROVEMENT,
LLC, MICRO CENTER INC., TARGET
CORPORATION, and WALMART INC.,

              Defendants.

Civil Action No. 23-218-GBW

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MEMORANDUM OPINION

April 19, 2024
Wilmington, Delaware

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE

Plaintiff ThroughTEK Co. Ltd. ("ThroughTEK") filed a complaint (hereinafter, the "Complaint") against Defendants Reolink Innovation Inc., Lowe's Home Improvement, LLC, Micro Center Inc., and Walmart Inc. (collectively "Defendants") for infringement of United States Patent No. RE47,842 (the "'842 Patent") on February 28, 2023.[1] D.I. 1. Defendants subsequently moved to dismiss the Complaint pursuant to Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim upon which relief can be granted. D.I. 18. On February 5, 2024, the Magistrate Judge issued a Report and Recommendation advising this Court to deny Defendants' Motion to Dismiss (hereinafter "the Report and Recommendation"). D.I. 38. Defendants object to the Report and Recommendation and maintain that the claims in the '842 patent cover patent-ineligible subject matter under 35 U.S.C. § 101. D.I. 43. For the reasons stated below, the Court sustains Defendants' objections to the Report and Recommendation and grants Defendants' Motion to Dismiss pursuant to 35 U.S.C. § 101.

I.   BACKGROUND

The '842 patent, entitled "System and Method of Identifying Networked Device for Establishing a P2P Connection," "discloses a system to identify networked devices for establishing [Point to Point] connections" between networked devices and the terminal device of a network system. D.I. 1, Ex. 1 ("'842 patent") at 2:8–10. As part of this identification process, each networked device is affixed with an image pattern, such as a barcode or QR code, corresponding

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[1] Defendants Lowe's Home Improvement, LLC, Micro Center Inc., and Walmart Inc. were voluntarily dismissed from this litigation without prejudice on September 6, 2023. D.I. 33, D.I. 34, D.I. 35.

to that device's identification code. *Id.* at 2:34–41. The networked devices are then identified, according to the '842 patent, by an image capture unit, such as cellphone, which can scan an image pattern to obtain identifying information about each corresponding networked device. *Id.* at 2:17–19. When the terminal device captures the image, the terminal device can use the device's identification code to "generat[e] a connection request signal corresponding to the barcode." *Id.* at 2:18–19. Finally, this request is sent by the terminal device to the network server and used by the server to establish a P2P connection between the terminal device and the networked device. *Id.* at 2:42–49.

The '842 patent explains that prior art systems required users to input the identification code of a networked device "[w]hen the users want[ed] to select a networked device to monitor some activities." *Id.* at 1:56–64. This process of manually inputting identification codes into the terminal device anytime the user sought to connect the terminal device with the networked device was cumbersome and often complicated the P2P connection process, "especially when the identification code is more than 10 digits or English characters or a combination thereof." *Id.* at 1:56–64. Thus, the stated objective of the '842 patent is "to solve the slow process of establishing connections between the terminal devices and networked devices, which is caused by the excessive number of digits or characters in the identification codes." *Id.* at 2:3–7. This objective is achieved by affixing on each networked device a pattern image, such as a barcode, that can be captured by the terminal device to eliminate the need for manual entry of the identification code. *Id.* at 2:8–16.

To this end, the '842 patent asserts two independent claims. Claim 1 of the '842 patent discloses:

1. A system to identify a networked device for establishing a point-to point (P2P) connection, the system comprising:

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a network server having a list of networked devices that are pre-registered in the network server, wherein the network server associates a corresponding identification of each networked device with a corresponding IP address of the networked device for enabling terminal devices to establish P2P connections with the plurality of networked devices;

a first networked monitoring device, having a first identification embedded in the first networked monitoring device, wherein the first networked monitoring device registers the embedded first identification into the list of networked devices to associate a corresponding IP address of the first networked monitoring device with the first identification by connecting to the network server through the Internet;

an image pattern, being attached on the first networked monitoring device and comprising the first identification for establishing a P2P connection with the first networked monitoring device; and a terminal device, wherein the terminal device generates a connection request signal when the image pattern is captured to the terminal device; and

the terminal device transmits the connection request signal to the network server through the Internet, wherein the network server obtains the first identification according to the connection request signal and obtains the corresponding IP address of the first networked monitoring device according to the obtained first identification for establishing a P2P connection between the terminal device and the first networked monitoring device, wherein the network server respectively transmits hole punching messages to the terminal device and the first networked monitoring device via the Internet to establish the P2P connection, and wherein the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection between the terminal device and the first networked monitoring device.

Claim 12 recites:

12. A method to identify a networked device for establishing a point-to point (P2P) connection, the method comprising the steps of:

connecting a first networked monitoring device to a network server through the Internet, wherein the networked server has a list of networked devices that are pre-registered in the network server wherein the network server associates a corresponding identification of each networked device with a corresponding IP address of the networked device for enabling terminal devices to establish P2P connections with the plurality of networked devices;

registering a first identification of the first networked monitoring device into the list of networked devices of the server;

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providing an image pattern comprising the first identification, wherein the image pattern is attached on the first networked monitoring device for establishing a P2P connection with the first networked monitoring device;

generating a connection request signal by a terminal device when the image pattern is captured to the terminal device and transmitting the connection request signal to the network server by the terminal device through the Internet; and

identifying the first networked monitoring device in the list of the networked devices of the network server to obtain the first identification according to the connection request signal and obtain the corresponding IP address of the first networked monitoring device according to the obtained first identification for establishing a P2P connection between the terminal device and the first networked monitoring device, wherein the network server respectively transmits hole-punching messages to the terminal device and the first networked monitoring device via the Internet to establish a P2P connection, and wherein the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection between the terminal device and the first networked monitoring device.

II.   LEGAL STANDARD

a. Motion to Dismiss

To state a claim on which relief can be granted, a complaint must contain "a short and plain statement of the claim showing that the pleader is entitled to relief . . . ." Fed. R. Civ. P. 8(a)(2). Such a claim must plausibly suggest "facts sufficient to 'draw the reasonable inference that the defendant is liable for the misconduct alleged.'" *Doe v. Princeton Univ.*, 30 F.4th 335, 342 (3d Cir. 2022) (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009)) (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 557 (2007)). "A claim is facially plausible 'when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.'" *Klotz v. Celentano Stadtmauer & Walentowicz LLP*, 991 F.3d 458, 462 (3d Cir. 2021) (quoting *Iqbal*, 556 U.S. at 678). But the Court will "'disregard legal conclusions and recitals of the elements of a cause of action supported by mere conclusory statements.'" *Princeton Univ.*, 30

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F.4th at 342 (quoting *Davis v. Wells Fargo*, 824 F.3d 333, 341 (3d Cir. 2016)). Under Rule 12(b)(6), the Court must accept as true all factual allegations in the Complaint and view those facts in the light most favorable to the plaintiff. *See Fed. Trade Comm'n v. AbbVie Inc*, 976 F.3d 327, 351 (3d Cir. 2020).

b. Patent Eligible Subject Matter

Patentability under 35 U.S.C. § 101 is a threshold legal issue. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). A § 101 inquiry is properly raised at the pleading stage if it is apparent from the face of the patent that the asserted claims are not directed to eligible subject matter. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 2621 (2018); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (stating that patent eligibility "may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion"); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016) (stating that "it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion" (quoting *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373–74 (Fed. Cir. 2016))); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1379 (Fed. Cir. 2018) (affirming Rule 12(b)(6) dismissal based on § 101 patent ineligibility). This is, however, appropriate "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, 1128 (Fed. Cir. 2018).

Section 101 of the Patent Act defines patent-eligible subject matter. It states, "[w]hoever 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." 35 U.S.C. § 101. The Supreme Court has held that there are

exceptions to § 101. "Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted). "[I]n applying the § 101 exception, [the court] must distinguish between patents that claim the 'building blocks' of human ingenuity and those that integrate the building blocks into something more[] thereby 'transforming' them into a patent-eligible invention. The former 'would risk disproportionately tying up the use of the underlying' ideas and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws." *Id.* at 217 (cleaned up).

The Supreme Court's *Alice* decision established a two-step framework for determining patent-eligibility under § 101. In the first step, the court must determine whether the claims at issue are directed to a patent ineligible concept. *Id.* In other words, the court asks whether the claims are directed to a law of nature, natural phenomenon, or abstract idea. *Id.* If the answer to the question is "no," then the patent is not invalid for teaching ineligible subject matter under § 101. If the answer to the question is "yes," then the court proceeds to step two, where it considers "the elements of each claim both individually and as an ordered combination" to determine if there is 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 (alteration in original). "A claim that recites an abstract idea must include 'additional features' to ensure that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]." *Id.* at 221 (internal quotation marks and citation omitted). Further, "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment." *Id.* at 222 (quoting *Bilski*, 561 U.S. at

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610–11). Thus, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Id.* at 223.

III. DISCUSSION

a. Report and Recommendation

Defendants filed the pending Motion to Dismiss on August 9, 2023. D.I. 18. Shortly thereafter, on February 5, 2024, the Magistrate Judge issued the Report and Recommendation with the recommendation to this Court to deny Defendants' Motion to Dismiss. D.I. 38. Defendants filed an objection to the Report and Recommendation on February 20, 2024, contending that the recommendation to deny Defendants' Motion to Dismiss was "premised on several errors of law and fact." D.I. 43.

In finding that the '842 patent was directed at patent eligible subject matter, the Magistrate Judge recognized that the patent disclosed systems "using an image pattern on the networked device, such as a barcode or QR code, which allows the networked device to be identified by the terminal device's image capture unit to establish a P2P connection without the manual entry of the networked device's identification code." D.I. 38 at 8. The Magistrate Judge found that the claimed system provided specific improvements to the capabilities of the computer system used to establish a P2P connection. *Id.* at 8–9. Thus, the Magistrate Judge determined that Defendants had "not shown that the claims [of the '842 patent] [were] directed to an abstract idea," as required under step one of *Alice*. *Id.* at 12–13. Defendants disagree with this holding. *See generally* D.I. 43.

When a party objects to a recommendation made by the Magistrate Judge, the Court "shall make a de novo determination of those portions of the report or specified proposed findings or recommendations to which objection is made" and "may also receive further evidence or recommit

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the matter to the magistrate judge with instructions." 28 U.S.C. § 636(b)(1)(C). Similarly, Rule 72(b)(3) requires de novo review of any recommendation that is dispositive of a claim or defense of a party. A motion to dismiss is considered a dispositive matter and, therefore, the findings and conclusions of the Magistrate Judge in connection with such a motion is reviewed de novo. *Id.* Ultimately, the Court may reject any part of a Magistrate Judge's order that is "clearly erroneous or contrary to law." 28 U.S.C. § 636(b)(1)(A); Fed. R. Civ. P. 72(b).

Because Defendants challenge the Report and Recommendation on a dispositive motion, the Court reviews Defendants' Motion to Dismiss de novo. Having done so, the Court disagrees with the Report and Recommendation and finds that the '842 patent is directed at a patent ineligible abstract idea. Thus, for the reasons discussed below, the Court sustains Defendants' objections to the Report and Recommendation and grants Defendants' Motion to Dismiss.

b. Patent Eligible Subject Matter

i. *Alice* Step 1

At *Alice* step one, the Court must determine whether claim 12 of the '842 patent is directed to an abstract idea.[2] The Supreme Court and the Federal Circuit have provided some guideposts as to what constitutes an "abstract idea." For example, claims that recite "'method[s] of organizing human activity' are not patent-eligible because they are abstract ideas." *Smartflash LLC v. Apple Inc.*, 680 F. App'x 977, 982 (Fed. Cir. 2017) (quoting *Alice*, 573 U.S. 208 at 220). Additionally, while claims that are "'directed to an improvement to computer functionality'" are not abstract, claims "'simply adding conventional computer components to well-known business practices'" are abstract. *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting

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[2] The Court finds claim 12 of the '842 patent representative. Section III.c of the Memorandum Opinion explains the Court's reasoning.

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Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016)). In deciding questions of patent eligibility and in navigating the parameters of an abstract idea, it is proper for courts to compare the claims at issue to those previously analyzed in other judicial decisions. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d at 1334 (allowing courts to "compare claims at issue to those claims already found to be directed to an abstract idea in previous cases").

ThroughTEK contends that claim 12 offers the "same type of improvement" upheld by the Federal Circuit in *Enfish*. D.I. 32 at 6. Specifically, ThroughTEK argues that claim 12 "us[es] the terminal device to capture information of the networked [] device and provid[es] the captured information to the network server for processing thereof in order to return the processed signal for establishing the P2P connection between the networked monitoring device and the terminal device." *Id.* at 5. According to ThroughTEK, the method disclosed in claim 12 improves the speed and functionality of the network system through a "reengineered architecture" which "solv[es] a slowness problem specific to using a management server to identify the network monitoring device" by "eliminat[ing] the need for [the] management server." *Id.* at 1, 5. Thus, ThroughTEK contends that the '842 patent is like the patent asserted in *Enfish* in that the '842 patent improves the functionality of the network system. *Id.* at 5. For the following reasons, the Court disagrees with ThroughTEK's characterization of the '842 patent and, instead, finds that claim 12 of the '842 patent is directed to the abstract idea of using an image pattern (e.g., a barcode or QR code) to convey identification information needed to establish a communication link (a P2P connection).

Defendants argue that claim 12 is "directed to the abstract idea of using an image (such as a barcode or QR code) to convey information needed to establish a communication link (a P2P connection)." D.I. 43 at 1. ThroughTEK responds that Defendants "grossly understate[] the technological impact of the method and system architecture at the center of the '842 [p]atent, as well as the problems addressed by the patented invention" by characterizing the patent as "merely using 'barcodes or other image patterns.'" D.I. 32 at 4–5. According to ThroughTEK, the '842 patent uses a "reengineered architecture" to establish a P2P connection between the terminal device and networked device by "capturing information of the networked monitoring device using the terminal device, and then establishing the P2P connection between the networked monitoring device and the terminal device using the terminal server (as opposed to the management server)." *Id.* at 1, 5. ThroughTEK contends that this architecture eliminates the need for the system to use a management server, thus resulting in two key improvements:

> (1) it solves a problem of the delays associated with identifying a networked monitoring device by requiring the establishment of a connection between a management server and the network server prior to establishing the P2P connection between the networked monitoring device and the terminal device, and

> (2) it provides specific technical improvements to computer functionality (e.g., taking input data, processing the data, returning the results, or storing the data) by . . . eliminating the need for the management server.

Id. Having reviewed the '842 patent, the Court finds that neither purported improvement is supported by the patent claims or specification.

Specifically, the Court does not find support for ThroughTEK's first alleged improvement which attributes the "delays" and "slowness problems" in the prior art to the prior art's use of a management server. *See id.* at 6. The Court finds that ThroughTEK mischaracterizes the'842 patent and its description of the prior art. As noted in the abstract of the '842 patent, the patent discloses systems in which "[a] barcode corresponding to an identification code of the networked device is attached on a networked device, and the identification is associated with an IP address of the networked device in a server." '842 patent at Abstract. The patented system utilizes "a terminal device [to] capture[] the barcode for transmitting a connection request to the server; and the server," in turn, "obtains the identification code of the networked device [from] the connection request" and matches the identification code with its corresponding IP address, which is ultimately shared with the terminal device and the networked device to establish a P2P connection between the two devices. *Id.* The specification notes that the claimed invention improves the prior art by eliminating the need for users to "*input[] the identification code* [] of the networked device . . . through an application programing interface (API)." *Id.* at 1:45–55 (emphasis added).

In describing the prior art, the '842 patent specification explains that the prior art includes "a platform for connectivity of [t]hings through point-to-point network," which is composed of a management server, terminal device, and networked devices. *Id.* at 1:37–41. To connect the networked device to the terminal device, the specification describes that "each of the [prior art's] networked devices has an identification code [] and automatically connects to the management server and registers the identification code . . . in the management server . . . ." *Id.* at 1:45–49. Once the identification codes are registered, a user may then connect to a particular networked

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device by causing the terminal device to "make a request to the management server to provide addressing information . . . for connecting to the networked device." *Id.* at 1:49–55. For the terminal device to send such a request to the server, however, the specification explains that the user must first manually enter the identification code for the relevant networked device into the terminal device. *Id.*

This prior art system, according to the '842 patent, "solve[s] connection problems" as "the number of network equipment increases." *Id.* at 1:56–58. Yet the specification notes that the requirement that a user manually "input[] the identification code [] of the networked device" into the terminal device complicates and prolongs the P2P connection process, especially where the identification codes are composed of "more than 10 digits or English characters or a combination thereof." *Id.* at 1: 58–61. According to the specification, even if the terminal device is a smart phone, "it is complicated and cumbersome to input such a lengthy identification code (ID) to establish a connection." *Id.* at 1:64–67. Thus, "to solve the slow process . . . caused by excessive number of digits or characters in the identification code," the '842 patent discloses a system of encoding the identification code for each networked device into an image (e.g., barcode) which is then attached to its corresponding networked device and scanned by the terminal device to extract the relevant identification information. *Id.* at 2:3–7. In other words, the patent discloses a method that eliminates the need for the user to manually enter identification codes by using corresponding barcode-like images that can be scanned to extract the necessary identification codes. *Id.* at 2:17–19.

Therefore, ThroughTEK's claim that the '842 patent solves the "slowness problem" by eliminating the requirement that a connection be formed between the management server and the network server "prior to establishing the P2P connection between the networked monitoring device

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and the terminal device," is unsupported by the specification. *See* D.I. 32 at 8. The specification explains that the prior art system is cumbersome due to the time it takes users to manually input "lengthy identification codes" to establish a connection, a process that necessarily occurs before a connection request can be sent to the management server. *See* '842 patent at 1:45–67 (noting that "each of the networked devices has an identification code (ID) and automatically connects to the management server [to] register[] the identification code." Then "the terminal device can make a request to the management server to provide addressing information . . . for connecting to the networked device" using each device's identification code). By allowing users to scan an image instead of requiring users to manually enter the identifying information, the specification explains that the claimed invention reduces the time it takes to provide the terminal device with the information it needs to generate a request to the network server. *Id.* at 3:31–38. This, in turn, speeds up the entire P2P connection process. *Id.* Thus, the "slowness problem" in the prior art is caused by the user, not the management server, and the Court agrees with Defendants that the claimed "process is allegedly no longer 'slow' not because anything has changed with the computers or devices, . . . but because the information that the computers require," the identification code, "has been input faster, by scanning an image, instead of manual typing." D.I. 43 at 4.

ThroughTEK's second purported improvement, that the claimed invention "eliminat[es] the need for the management server," is similarly unsupported by the specification and mischaracterizes the '842 patent. *See* D.I. 32 at 5. Indeed, while ThroughTEK contends that eliminating the management server is part of the "core architecture" of the '842 patent, the Court finds no language in the specification that recognizes this change as an improvement of the claimed

invention.[3] While the Court acknowledges that the claims of the '842 patent do not assert a system which uses a "management server," the claims disclose the use of a "network server," which assumes many of the same functionalities as the prior art's "management server." For instance, the specification explains that the prior art uses a "management server" to register and store the identification codes and IP addresses for all the networked devices and, once the management server receives a connection request from the terminal device, the management server sends the necessary addressing information to establish a P2P connection between the terminal device and the networked device. *Id.* at 1:45–55. The claims of the '842 patent similarly disclose systems which utilize a "network server" to store a list of the identification codes and corresponding IP addresses for each of the system's networked devices. *See, e.g., id.* at 9:10–16. Also like the "management server" in the prior art, the "network server" asserted in the claims receives a request from the terminal device and uses its list of registered devices to determine the corresponding IP address necessary to establish a P2P connection between the terminal device and the networked device. *Id.* at 9:31–47. Finally, despite ThroughTEK's allegations that the patented invention discloses a system that uses the terminal device to establish the P2P connection "as opposed to the management server," figure 5 of the '842 patent clarifies that it is still the server of the claimed invention (i.e., the network server), not the terminal device, which "establish[es] a P2P connection between the networked device and the terminal device" after it receives a connection request from the terminal device.

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[3] Rather, as the Court noted, the specification explains that the "slow and cumbersome" process of establishing a P2P connection under the prior art results because the user is required to manually enter the identification code. *See supra* at 12. Despite ThroughTEK's claims otherwise, the specification does not attribute this "slowness problem" to the management server. *Id.*
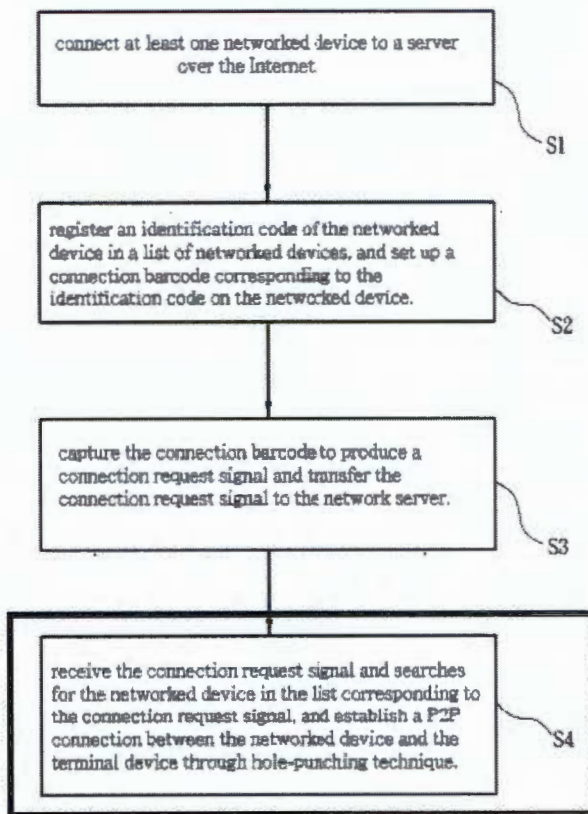
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┌─────────────────────────────────────────┐
│  connect at least one networked device   │
│         to a server                      │
│         over the Internet                │
└─────────────────────────────────────────┘
                    │                    ╲ S1
                    │
┌─────────────────────────────────────────┐
│  register an identification code of the  │
│  networked device in a list of networked │
│  devices, and set up a                   │
│  connection barcode corresponding to the │
│  identification code on the networked    │
│  device.                                 │
└─────────────────────────────────────────┘
                    │                    ╲ S2
                    │
┌─────────────────────────────────────────┐
│  capture the connection barcode to       │
│  produce a                               │
│  connection request signal and transfer  │
│  the                                     │
│  connection request signal to the        │
│  network server.                         │
└─────────────────────────────────────────┘
                    │                    ╲ S3
                    │
┌═════════════════════════════════════════┐
║ ┌─────────────────────────────────────┐ ║
║ │ receive the connection request signal│ ║
║ │ and searches                         │ ║
║ │ for the networked device in the list │ ║
║ │ corresponding to                     │ ║
║ │ the connection request signal, and   │ ║
║ │ establish a P2P       ╲ S4          │ ║
║ │ connection between the networked     │ ║
║ │ device and the                       │ ║
║ │ terminal device through hole-punching│ ║
║ │ technique.                           │ ║
║ └─────────────────────────────────────┘ ║
└══════════════════════════════════════════┘
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FIG. 5

Id. at Fig. 5 (emphasis added).

While, at this stage, the Court is not required to determine whether a "network server" is distinguishable from the "management server" described in the prior art, nowhere does the '842 patent attempt to differentiate between the two servers. [4] Nor does the patent note that using a "network server" improves the functionality of the system or that eliminating the "management server" solves the "slowness problem." Given a lack of any discussion recognizing that the patented invention intends to "eliminat[e] the need for a management server," the Court disagrees

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[4] Critically, while ThroughTEK contends that the prior art uses the management server to "relat[e] [] information to the network server," thus implying that the prior art includes both a "network server" and "management server," the specification does not claim that the prior art included a "network server." D.I. 32 at 8. Rather, the specification notes that the prior art is a "platform [that] has a management server, a plurality of proximal equipment and networked devices having a plurality of application programs." '842 patent at 1:37–41.

with ThroughTEK that "establishing the P2P connection between the networked monitoring device and the terminal device using the terminal server (as opposed to the management server)" is a "core architecture" of the patented invention. *See* D.I. 32 at 5. Accordingly, the Court declines to consider ThroughTEK's attorney arguments as part of its *Alice* step one inquiry. *See CardioNet, LLC v. InfoBionic, Inc*, 955 F.3d 1358, 1374 (Fed. Cir. 2020) ("[S]tep one of the *Alice* framework does not require an evaluation of the prior art or facts outside of the intrinsic record regarding the state of the art at the time of the invention.); *Voip-Pal.Com, Inc. v. Apple Inc.*, 375 F. Supp. 3d 1110, 1145 (N.D. Cal. 2019), *aff'd sub nom. Voip-Pal.com, Inc. v. Twitter, Inc.*, 798 F. App'x 644 (Fed. Cir. 2020) ("[A]ttorney argument in the complaint cannot save the claims because the purported improvements have not been captured in the claim language.").

Rather, as emphasized by the claims and the specification, the '842 patent discloses systems and methods of using an image pattern to store and communicate identification codes for networked devices. While ThroughTEK contends that this characterization "grossly understates the technological impact of the method and system architecture at the center of the '842 [p]atent,"[5] the '842 patent explicitly holds that the claimed invention is "[u]nlike prior art," because it eliminates the need to "manually enter the identification code word by word" and instead "captures the barcode image of the networked device . . . to allow the server to establish a P2P connection between the networked device and the terminal device." '842 patent at 3:33–38. Accordingly, the Court disagrees that this characterization of the '842 patent understates the purpose or impact of the claimed invention.

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[5] D.I. 32 at 4–5.

b. Claim 12 of the '842 patent is directed to an abstract idea.

As ThroughTEK recognized in its Complaint, "[g]enerally speaking, the '842 [p]atent relates to a system and method for establishing a P2P (point-to-point) connection via scanning an image, such as a bar code or QR code." D.I. 1, ¶32. Claim 12 in particular asserts a system which "generat[es] a connection request signal by a terminal device when the image pattern is captured to the terminal device and transmit[ed] . . . to the network server by the terminal device." '842 patent at 10:38–42. While ThroughTEK contends that the claim is directed at improving the function and operation of the network system "just as in *Enfish*," the Court disagrees and finds that claim 12 is directed at the abstract idea of using an image (such as a barcode or QR code) to convey identification information needed to establish a communication link (a P2P connection). *See* D.I. 32 at 7.

The patent recited in *Enfish* involved a novel data structure—a self-referential table that was "a specific type of data structure designed to improve the way a computer stores and retrieves data in memory." *Enfish*, 822 F.3d at 1339. The court explained that the self-referential table was directed at improving the process by which computer databases create tables to describe the relationship between different elements of information. *Id.* According to the court, the self-referential table disclosed by the patent differed from the prior art in several key respects. Most notably, where the prior art required computer databases to create and store numerous tables to organize its information, the self-referential table allowed databases to store "all data entities in a single table, with column definitions provided by rows in that same table." *Id.* at 1330. The court found that, by allowing each database to store its information in a single table, the patent improved "existing technology . . . *by the specification's teachings* that the claimed invention achieves . . .

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increased flexibility, faster search times, and smaller memory requirements." *Id.* (emphasis added).

Claim 12 of the '842 patent, on the other hand, does not recite specific rules or algorithms for creating or capturing the image patterns for each networked device—for instance, "a new barcode format, an improved method of generating or scanning barcodes, or similar improvements in computer functionality." *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017). Rather, claim 12 generally discloses a system "providing an image pattern comprising the first identification, wherein the image pattern is attached on the first networked monitoring device for establishing a P2P connection with the first networked monitoring device." '842 patent at 10:33–37. The claim adds that the terminal device generates a connection request signal "when the image pattern is captured," and the claim provides no other details regarding the terminal device's image capturing process. *See id.* at 10:38–42. Further, while ThroughTEK argues that the claimed system "reduc[es] storage requirements" by eliminating the management server, the Court finds no support for this argument in the '842 patent specification or claims. *See* D.I. 32 at 9. As noted above, the specification does not describe the patented system as eliminating the need for the management server, and the specification similarly does not claim that doing so would improve the storage capabilities of the network system. *See supra* at 10-13.

Further, in holding that the patent's subject matter was not abstract, the court in *Enfish* recognized that "the claims [were] not simply directed to any form of storing tabular data, but instead [were] specifically directed to a self-referential table for a computer database," and the claims provided the means for implementing the necessary algorithms to create the asserted self-referential table. *Enfish*, 822 F.3d at 1339; *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) ("It [was] the incorporation of the claimed rules, not the use of

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the computer, that 'improved [the] existing technological process' by allowing the automation of further tasks."). Claim 12, however, does not disclose the specific means and methods for practicing the asserted technology. Rather, claim 12 focuses on the outcome of the claimed method—identifying the networked device through the scanning of an image—and, in doing so, the claim uses technology "merely as a tool" to accomplish its stated objective. *Enfish*, 822 F.3d at 1336. The Federal Circuit's holding in *Secured Mail Solutions LLC v. Universal Wilde, Inc.* is particularly germane.

In *Secured Mail*, the Federal Circuit found that the "use of barcodes, or similar improvements in computer functionality" to automate the communication of identification codes "is not sufficient to impart patent eligibility." *Secured Mail*, 873 F.3d at 910. Like the instant action, the asserted patents in *Secured Mail* disclosed methods for affixing a barcode to the outer surface of a mail object so that the recipient of the mail could scan the image and obtain certain information about the package. *Id.* at 908. According to the court, the patents "[were] directed to the abstract idea of communicating information about a [device] by use of a marking." *Id.* at 908–09 (internal citations omitted). In finding that the invention failed under *Alice* step one, the court explained:

> The claims of these patents provide a method whereby a barcode is generated, affixed to a mail object, and . . . [t]hen, upon receipt, . . . scanned, and data corresponding to the sender is sent to the recipient over the network and displayed on the recipient's device. *This method is not limited to any particular technology of generating, printing, or scanning a barcode, of sending a mail object, or of sending the recipient-specific information over a network.*

Id. at 910–11 (emphasis added). While the patentee argued that the claimed invention improved existing processes by making it easier to transmit data between the mail's sender and recipient, the court found that "[t]he fact that an identifier can be used to make a process more efficient, [] does not necessarily render an abstract idea less abstract." *Id.* at 910.

Similarly, in the instant action, the fact that the '842 patent provides for the use of an image pattern to automate the identification process does not render the idea of communicating information (i.e., the identification codes) using a marker (e.g., a barcode) any less abstract. Like the patented technology in *Secured Mail*, claim 12 uses technology as a tool to accomplish what was already done manually by the user—the act of providing the terminal device with identifying information about the networked device for which the user seeks to connect. However, using a code to organize and identify an object is a longstanding and well-known identification method. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (recognizing as abstract the idea of "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory" because "data collection, recognition, and storage is undisputedly well-known" and "humans have always performed these functions"). Indeed, the '842 patent concedes that, even within the realm of existing P2P connectivity technology, this process was done by the user. '842 patent at 1:61–64 (noting that, "[w]hen the users want to select a networked device to monitor some activities," they must input the identification code). While the process may improve the speed of the P2P connection process, this alone does not render the abstract idea behind the invention any less abstract. *See SAP Am.*, 898 F.3d at 1163 (internal citations omitted) ("We may assume that the techniques claimed are '[g]roundbreaking, innovative, or even brilliant,' but that is not enough for eligibility."). Thus, for many of the same reasons highlighted by the Federal Circuit in *Secured Mail*, the Court finds that claim 12 of the '842 patent is directed at the abstract idea of communicating identification information using an image.

Therefore, the Court's analysis must proceed to step two of *Alice* to determine whether claim 12 involves an inventive step that transforms the claim into a patent-eligible application of the abstract idea.

ii. *Alice* Step 2

In *Alice* step two, the Court considers the elements of the claim, both individually and as an ordered combination, to assess whether "the limitations present in the claims represent a patent-eligible application of the abstract idea." *Content Extraction & Transmission LLC*, 776 F.3d at 1347 (citation omitted). Merely reciting the use of a generic computer or adding the words "apply it with a computer" cannot convert a patent-ineligible abstract idea into a patent-eligible invention. *Alice*, 573 U.S. at 223; *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1332 (Fed. Cir. 2015). While in some instances courts decline to resolve step two of *Alice* on a motion to dismiss, courts may "determine[] claims to be patent-ineligible at the motion to dismiss stage" if the determination can be made "based on intrinsic evidence from the specification without need for 'extraneous fact finding outside the record.'" *Secured Mail*, 873 F.3d at 912 (citing *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d at 613–14).

ThroughTEK contends that the innovative concept of the '842 patent concerns the "specific enhancing limitations to the system and a method of establishing the P2P connection through the *reengineered architecture*." D.I. 32 at 8 (emphasis added). This reengineered architecture, according to ThroughTEK, includes eliminating the need for a management server. *Id.* ThroughTEK argues that "the limitation of using the terminal device to capture information from the networked monitoring device and communicate the captured information to the network server is an improvement over the conventional manners of using the management server which is comparatively slow in obtaining information from the networked monitoring device and relating

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such information to the network server." *Id.* As noted above, the Court is not persuaded by ThroughTEK's argument that the inventive step of the '842 patent involves eliminating the need for the management server. *See supra* at 10-13.

Rather, both the prior art and claim 12 employ a "server" to register and store the identification codes for the networked devices. In the prior art, this server is called the "management server." Claim 12, on the other hand, discloses the use of a "network server." Despite this difference in the server's name, claim 12 shows that, much like the management server, "the network server associates a corresponding identification of each networked device." '842 patent at 10:24–29. Claim 12 similarly reveals that, just as the prior art's management server uses the signal sent by the terminal device to send a corresponding message to establish a P2P connection between the two devices, the "network server" of the asserted system uses the signal it receives from the terminal device to identify the corresponding IP address for the networked device and sends a signal to both the terminal device and the networked device "to establish the P2P connection." *Id.* at 10:43–59.

Given the similarities between the "management server" in the prior art and the "network server" in claim 12—when coupled with the lack of any discussion in the claims or the specification regarding eliminating the need for a management server—the Court cannot find that the patent's inventive concept is "the limitation of using the terminal device . . . over the conventional manner of using the management server." *See* D.I. 32 at 8. Indeed, the intrinsic evidence reveals that the network server performs the same key functions as the prior art's "management server" in establishing the P2P connection, and the specification provides no indication that the network server performs any functions beyond those already known to be exercised by "servers" in the prior art. *See MyMail, Ltd. v. OoVoo, LLC*, 613 F. Supp. 3d 1142,

1167 (N.D. Cal. 2020) (finding no inventive concept where "[t]he 'specification[s] [are] silent as to' as to how the Pinger process or the MOT script 'differ[ ] from the prior art, or how any inventive feature...is used in an unconventional manner'") (internal citations omitted), *aff'd*, No. 2020-1825, 2021 WL 3671364 (Fed. Cir. Aug. 19, 2021); *In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d at 614 (finding that a server was generic where "the server simply receives data, 'extract[s] classification information ... from the received data,' and 'stor[es] the digital images ... taking into consideration the classification information'") (internal citations omitted).

For similar reasons, the inventive concept cannot concern, as ThroughTEK claims, solving a "slowness problem" by "using the terminal device to capture information" in place of the "management server." D.I. 32 at 7. The '842 patent specification discloses that the prior art, like claim 12, also includes a "terminal device [which] make[s] a request to the management server . . . for connecting to the networked device by inputting the identification code (ID) of the networked device." *See* '842 patent 1:45–55. Also, the specification shows that the prior art system differs from claim 12 not in the latter's use of a terminal device in place of the management system but rather in that the prior art required users to manually enter the identification codes before a connection request could be generated by the terminal device. *See id.* at 3:33–39 ("Unlike the prior art to manually enter the identification code word by word, the image capture unit . . . captures the barcode image of the networked device, [and] the barcode image is then converted into the identification code so as to allow the server to establish a P2P connection between the networked device and the terminal device."). The specification emphasizes that it is this change—eliminating the need for users to manually enter identification codes—that solves the prior art's "slowness problem." *Id.* at 2:3–7. The Court therefore declines to consider ThroughTEK's purported improvements as part of its *Alice* step two analysis. *KOM Software Inc. v. NetApp, Inc.*, No. CV

18-160-WCB, 2023 WL 6460025, at *11 (D. Del. Oct. 4, 2023) (noting that under *Alice* step two, "what is required is for the patentee to point to the alleged improvement, consisting of an inventive concept that is embodied in the claims and described and enabled by the specification").

Importantly, a review of the claims and specification of the '842 patent reveal that the purported inventive concept is the use of an image pattern to eliminate the need for users to manually enter identification codes. To that end, claim 12 discloses an invention that "provid[es] an image pattern comprising the first identification, wherein the image pattern is attached on the first networked monitoring device for establishing a P2P connection with the first networked monitoring device." '842 patent at 2:33–37. The Court finds no transformative inventive concept with the invention's use of an "image pattern." As the Federal Circuit noted in *Secured Mail*, "[t]he use of barcodes was commonplace and conventional in 2001," and claim 12 "does not provide any specific showing of what is inventive about the identifier or about the technology used to generate and process it." *Secured Mail*, 873 F.3d at 911–12. Instead, claim 12 generally discloses "providing an image pattern comprising the first identification" and notes that the image pattern is attached to the first networked device. *See* '842 patent at 2:21–42.

The specification confirms that there is nothing inventive about the image pattern identification process disclosed by the claims. The specification notes, for instance, that the image pattern can be a "two-dimensional code such as a quick response code (QR code), [but] [] is not limited to that and [] can be in other form[s] such as a one-dimensional code." '842 patent at 4:56–59. Similarly, the terminal devices can be a litany of different portable electronic devices including, but not limited to, "mobile phones, tablet computers, [and] notebook computers equipped with cameras." *Id.* at 4:23–25; *Cf ContentGuard Holdings, Inc. v. Amazon.com, Inc.*, 142 F.Supp. 3d 512, 517 (finding the patents at issue patent eligible because they were "directed

toward systems and methods for controlling the use and distribution of digital works in accordance with 'usage rights' *through the use of 'trusted' systems*") (emphasis added).

Thus, the Court agrees with Defendants that the image pattern "is captured to the terminal device" using "well-understood, routine, [and] conventional" identifier technology. D.I. 43 at 8. Claiming the use of general barcode technology to "simply perform[] more efficiently what could otherwise be accomplished manually," however, is insufficient under the second prong of *Alice*. *Bancorp Servs. LLC v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1279 (Fed. Cir. 2012).

Coqui Techs., LLC v. Gyft, Inc., C.A. No. 17-777-CFC-SRF, 2018 WL 6033479 (D. Del. Nov. 16, 2018) (Fallon, Mag. J., Report and Recommendation), is another case that is illustrative and persuasive although not binding authority.[6] In *Coqui Techs.*, the Magistrate Judge found that the asserted patent, which disclosed "a [] method of purchasing and using an electronic gift card– in the form of a barcode received via a MMS [Multimedia Messaging Service] message and displayed on a display device with Internet access," was patent ineligible. *Id.* at *3. While the patent "improve[d] the electronic gift certificate process by facilitating the purchase, usage, and gifting of certificates without requiring the customer to be physically present in the store," the Magistrate Judge found that "the application of barcodes, MMS messages, and devices with internet access" was "not an inventive concept [because] [t]he claims . . . d[id] not solve a technological problem." *Id.* at *6. Rather "the claims provide[d] a conventional technological environment (i.e. computers and the Internet) in which to carry out the abstract idea of using electronic gift certificates." *Id.* The Magistrate Judge noted that, while the claimed system resulted

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[6] No objections were filed to the Magistrate Judge's Report and Recommendation and the parties subsequently stipulated to dismiss the case with prejudice.

in "the reduction in the amount of settlement processes required in the gift certificate circulation system," that improvement was "a byproduct of the advantages of computers and the Internet." *Id.*

Similarly, in the instant action, the use of a barcode and an image capturing system simplifies the P2P connection process by allowing the user to avoid manual entry of identification codes. This benefit, however, is a byproduct of the image capturing unit "simply perform[ing] more efficiently what could otherwise be accomplished manually." *Bancorp Servs. LLC*, 687 F.3d at 1279 (Fed. Cir. 2012). Thus, no inventive concept is achieved through claim 12's use of a terminal device to capture an image pattern. *Id.*; *see also Coqui*, 2018 WL 6033479, at *6 ("The application of barcodes, MMS messages, and devices with Internet access to a system comprising generic computing components for circulating electronic gift certificates is not an inventive concept.").

The Court also finds no inventive concept in the remaining elements of claim 12, either individually or in ordered combination. The other limitations assert known methods of: (1) connecting the first networked device to the network server through the internet to register the networked device into the server's list of networked devices ('842 patent at 10:21–29); (2) sending a connection request signal from the terminal device to the networked server through the internet (*Id.* at 10:38–42); and (3) using the network server to establish a P2P connection between the terminal device and the networked device (*Id.* at 10:43–58). With respect to the final step of establishing the P2P connection, claim 12 notes that the server uses the communication request to identify the relevant networked device from the list of networked devices to obtain the corresponding IP address for the device. *Id.* at 10:43–48. This process is identical to the processes disclosed in the specification's description of the prior art. *See id.* at 1:45–55 (noting that, in the

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prior art, "each of the networked devices has an identification code" which is registered with the management server and can be sent by the terminal device to the management server "to request addressing information"). As part of this process, claim 12 notes that the network server transmits "hole-punching messages to the terminal device and the [] networked [] device via the Internet to establish the P2P connection." *Id.* at 10:50–54. Yet, the specification reveals that even this hole-punching technique is "well-known in the field." *Id.* at 5:59–62.

Thus, for all of these reasons, the Court finds no inventive concept that transforms claim 12 into a patent-eligible application of the abstract idea.

c. Representativeness

The parties dispute whether claim 12 of the '842 patent is representative. *See* D.I. 19 at 6–8; D.I. 32 at 4. As explained below, the Court finds claim 12 representative of all claims of the '842 patent for purposes of determining whether the claims recite patent-eligible subject matter.

In their briefing, Defendants contend that claim 12 is representative of "dependent claims 2–4, 6–11, and 13–19 because those claims merely 'recite well-known, routine, and conventional functions of ... computers.'" D.I. 19 at 6–8 (citing *Content Extraction*, 776 F.3d at 1349). Defendants contend that claim 12 is representative of claim 1, the only other independent claim of the '842 patent, because each claim "recites a 'system' for the identically stated purpose and invokes the method of claim 12." *Id.*

ThroughTEK responds that claim 1 and claim 12 recite different limitations and, as an example, notes that "while claim 12 recites 'registering a first identification of the first networked monitoring device into the list of networked devices of the server,' claim 1 recites 'the first networked monitoring device registers the embedded first identification into the list of networked devices to associate a corresponding IP address of the first networked monitoring device....'" '842

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patent, claim 1. ThroughTEK offers no elaboration beyond identifying a single distinction in the claims' description of the process in which identification codes are registered to the network server. To properly counter Defendants' argument that claim 12 is representative, however, ThroughTEK was required to provide a meaningful argument as to why the other claims are significantly distinct from the system disclosed in claim 12. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) ("Courts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative."). ThroughTEK failed to provide any meaningful argument.

More importantly, beyond the slight distinction highlighted by ThroughTEK, claims 1 and 12 "are substantially similar and linked to the same abstract idea." *Content Extraction*, 776 F.3d at 1348. Specifically, the '842 patent discloses methods for establishing a P2P connection without requiring the user to manually enter identification codes, and the methods disclosed in claim 1 and claim 12 each accomplish this goal by using image patterns that are affixed to the networked devices and captured by the terminal device to extract identification information for the corresponding devices. Because the Court finds that claim 12 is directed at the abstract idea of communicating information about a networked device by use of an image or marking, "it would defy reason to allow substantially identical claims to remain the subject of further litigation." *Boom! Payments, Inc. v. Stripe, Inc.*, 839 F. App'x 528, 534 (Fed. Cir. 2021). Thus, the Court finds that claim 12 is representative of claim 1.

Because ThroughTEK presented no argument for the distinctive significance of the dependent claims, ThroughTEK waived its representativeness argument for those claims, and the Court finds

that claim 12 is also representative of dependent claims 2–4, 6–11, and 13–19. *See Berkheimer*, 881 F.3d at 1366.

IV. CONCLUSION

For the reasons stated above, the Court finds that the '842 patent is directed to patent-ineligible subject matter under 35 U.S.C. § 101. Thus, the Court sustains Defendants' objection to the Report and Recommendation and grants Defendants' Motion to Dismiss with prejudice.[7] The Court will enter an Order consistent with this Memorandum Opinion.

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[7] ThroughTEK did not request leave to amend the Complaint if the Court granted Defendants' Motion to Dismiss. Such a request, even if made, would not be granted, given that the Court reviewed the '842 patent when deciding this Motion, and an amendment would not change the Court's *Alice* analysis. "The claims of the patents say what they say, [and] [a]mending the complaint would not change the Court's § 101 analysis." *Wireless Discovery LLC v. eHarmony, Inc.*, 654 F. Supp. 3d 360, 376 (D. Del. 2023). Thus, Defendants' Motion to Dismiss is granted with prejudice.