IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

APPLIED CAPITAL, INC.,

                Plaintiff,

    vs.

THE ADT CORPORATION and ADT LLC,

                Defendants.

CIVIL ACTION NO. 1:16-CV-00815

MEMORANDUM AND ORDER

This matter is before the Court on defendants ADT Corporation's and ADT LLC's (collectively "ADT") motion for summary judgment on patent eligibility under 35 U.S.C. § 101, Doc. 123. This is an action for patent infringement involving security systems and, in particular, the monitoring of premises using a graphical floor plan. The plaintiff, Applied Capital, Inc. ("Applied") asserts ADT infringes the following patent claims: claims 1–3, 6–9, and 11–15 of U.S. Patent No. 8,378,817 (the "'817 patent") and claims 1–3, 6–9, 11–15, and 17 of U.S. Patent No. 9,728,082 (the "'082 patent").

ADT contends that all of the asserted claims in this case are invalid under 35 U.S.C. § 101, arguing that they are directed to an "abstract idea" that is not patent eligible under § 101. It argues the asserted claims are all directed to a series of information processing steps, including the collecting, analyzing, and dispatching of information concerning alarm or warning systems.

The plaintiff contends the claims of the ACI Patents are directed to a specific way of providing users with graphical information concerning a monitored event in a premises—embodied by using dynamically-rendered, event-specific, graphical floor plan. The plaintiff argues the specific way of providing users with graphical information

is explicit in the independent claims, all of which require providing (retrieving/providing) a graphical combination of (1) visual indicators layered on a map (i.e., "superimposed visual indicators"); (2) groups of images arranged so they are accessible through one another (i.e., "hierarchically organized graphical images"); and (3) images defined by vectors (i.e., "vector-based graphical images").

I.   FACTS

The '817 patent and '082 patent share the same title (Premises Monitoring System), the same inventor (Rodney Fox), and the same disclosure (the "Common Specification"). *See* Doc. No. 1-2, Ex. A, '817 patent at 14-21; Doc. No. 78-2, Amended Complaint, Ex. Q, '082 patent. The record shows three Common Specification of the patents incorporates by reference and claims priority to two provisional applications (SN6114798, filed on January 28, 2009 and SN61228044, filed on July 23, 2009) and incorporates an appendix (APPENDIX A) disclosing "iLinkx," a specific example of one embodiment of the disclosed invention. Doc. No. 102-2, Claim Construction Brief, Ex. 1, '817 patent at 1:5-9; Ex. 2, '082 patent at 1:5-9. The '817 patent has one independent claim—claim 1; and the '082 patent has two independent claims—claims 1 and 17. *Id.* Independent claim 1 of the '817 patent recites:

> 1. A method comprising:
> receiving one or more signals containing a device identifier and a device condition from one or more remote alarm monitoring systems; retrieving enhanced information based on the device identifier and the device condition; determining one or more communication methods and communication destinations based on the device identifier and the device condition; and dispatching the enhanced information to the one or more communication destinations using the one or more communication methods; and wherein the retrieving enhanced information based on the device identifier and the device condition comprises retrieving images based on the device identifier and the device condition, the images

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comprising all of the members selected from the group consisting of superimposed visual indicators, hierarchically organized graphical images, and vector based graphical images.

Doc. 1-2, the '817 patent, at 18:45–63. Independent claim 1 of the '082 patent describes a "non-volatile and non-transient computer-readable medium comprising machine-executable code" performing steps identical to those of claim 1 of the '817 patent. Doc. 78-2, the '082 patent, at 19:6–25. Independent claim 17 of the '082 patent describes a "computerized system comprising a central monitoring system" performing steps identical to those of claim 1 of the '817 patent. *Id.* at 20:17–21:3, Doc. 78-2, the '082 Patent, at 20:55–21:3.

Each independent claim requires providing (retrieving/dispatching) a specific combination of graphical elements associated with (based on) a monitored event (the device identifier and device condition received from a remote alarm monitoring system). *Id.* The graphical elements are explicitly recited: "superimposed visual indicators," "hierarchically organized graphical images," and "vector-based graphical images." *Id.*, Doc. 102-2, Ex. 1, 817 patent at 18:60-65. The claims also require providing these graphics to selected communication destinations using selected communication methods. *Id.* at 18:51-56.

The Common Specification teaches retrieving superimposed visual indicators by "retriev[ing] . . . a floor plan having a superimposed icon illustrating device type and device position relative to the floor plan and superimposed indicators highlighting pathways[.]" *See, e.g.*, Doc. 102-2, Ex. 1, '817 patent at 5:1-18. It describes such indicators as "customizable, blinkable, and/or color-codable" icons or designators "superimposed on a map, picture, floor plan, and/or site plan" to illustrate the position

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and type of devices and conditions. *Id.* at 5:9-18. It defines a hierarchically organized image as "any group of images arranged relative to . . . and/or accessible through one another" such as "a camera feed from a room of a device accessible from a floor plan accessible from a site plan accessible from a map." *Id.* at 5:39-45. The Common Specification also states that such images would be "dynamic in their operation," allowing scaling "with no loss or degradation" and/or "magnification without degradation (e.g., to approximately 6600%)," and could be transmitted "in .pdf format." *See* Doc. 78-1, Amended Complaint, Ex. P, '817 patent, APPENDIX A at DOC. 75; Doc. 102-2, '817 patent at 5:55-62. Further, every part of the Common Specification emphasizes that such graphical elements are "tailored" to a particular event—i.e., retrieved "based on the device identifier and/or the device condition" in a signal received from a remote alarm monitoring system. *See, e.g.*, Doc. 102-2, '817 patent at 5:1-6:2. In the Common Specification, all information dispatched is "device specific and not general in content." Doc. 78-1, '817 patent, APPENDIX A at Doc. 75.

Also, the Common Specification refers to the benefits of the invention over graphical presentation approaches in prior security systems. Doc. 102-2, '817 patent at 5:1-6:2. For example, embodiments of the invention support a "dynamic," "fun," "graphical file presentation approach" where images "shall be attached to an incoming alarm and linked in a hierarchy so navigation can be performed by the operator." Doc. 78-1, Amended Complaint, Ex. 1, '817 patent, Ex. P, APPENDIX A at Doc. 36. The approach "shall enable the system to receive an alarm and automatically display a street map and/or subsequent graphics of the building, wing, floor, room, and finally to the device icon." *Id.* The Common Specification describes support for "multiple

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hierarchical graphic images," "creating important instructions and/or images" and "provid[ing] the dispatchers with the most accurate and efficient method of understanding the physical situation of an event." *Id.* Moreover, "[c]olor-coded alarms and custom audio/visual indicators enable instant recognition of the nature and/or severity of an event" and "[f]ull graphic capabilities enable the user to import graphic files to enhance the dispatcher's speed and accuracy." *Id.* at Doc. 64.

The graphical presentation approach of the invention provides recipients with the "most accurate and efficient method of understanding the physical situation of an event," and also reduces the file sizes, processing time, transmission time, and computer screen build times associated with prior attempts to provide colorgraphic displays to users. *Id.* at Doc. 36. The Common Specification states the "patent pending technology" "minimizes the actual file size while maintaining the colorgraphic integrity" and "further[s] enhanced notification by pinpointing the specific problem area, reflecting the condition on a colorgraphic image that could be printed, forwarded or archived for future reference in as little as a few seconds," allowing "enhanced notification, in a much shorter time period than conventional technology with a significant reduction in response time." *Id.* at 4.

The prosecution history shows the inventor amended the claims during the prosecution of the '817 patent to include combining the graphical elements, explaining "[t]he present invention provides a unique manner in which to provide useful information in a compact format to, for example, first responder personnel." *See* Doc. 117-4, Markman Brief, File History Excerpt at Doc. 8. The inventor stated that such personnel would receive:

for example, a compact Adobe PDF file using vector-based imagery for compactness yet with ability to zoom and retain readability. Superimposed visual indicators are also provided, as well as hierarchically organized graphical images that can, for example, lead one from an iconic representation of a device to a graphical control panel of the device itself.

Id. This specific graphical presentation approach improved the type of information available to responders, and also improved "the means by which it is presented" and thus provided "a current solution" to a "long-noted deficiency in current technologies." *Id.* at Doc. 9-10. The patent applicant stated that:

Prior to the present invention, information made available by a reporting system was generated by the system itself. With the present invention, there are no limitations on the type and/or source of information made available to the responder. It can come from anywhere via an internet or networked connection or combination thereof.

Id. at Doc. 8.

Both the Common Specification and the prosecution history focus on improving real-time notification capabilities of security systems by using a dynamically-rendered, event specific, graphical floor plan that pinpoints exact location and condition of events. Doc. 102-2, Ex. 1, '817 patent at 4:17-55, 5:1-28, 9:29-37; Doc. 78-1, Amended Complaint, Ex. P, APPENDIX A at Doc. 4, 30, 67-68. The patent prosecution history makes explicit the "combination of features" that define the invention. Doc. 117-4, Markman Brief, Ex. C, File History Excerpt at Doc. 8. The invention is aimed at a long-felt need in security systems to improve the type of information that is made available to the fire service, the means by which it is presented, and the channels through which it is distributed in a timely way. *Id.* at Doc. 9-10.

On Dec. 11, 2012, The United States Patent and Trademark Office ("USPTO") allowed the claims of the '817 patent, finding that "[n]one of the prior art of record, either

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taken by itself or in any combination, would have anticipated or made obvious the invention of the present application at or before the time it was filed."   Doc. 117-5, Markman Brief, Ex. D, Notice of Allowance at Doc. 10.   The USPTO explicitly found that the patentee's amendment reciting the dynamically-rendered, event-specific, graphical floor plan rendered the claimed premises monitoring invention novel and non-obvious over the voluminous prior art of record.   *Id.*

Defendant ADT filed a petition for *inter partes* review with the Patent and Trademark Appeals Board ("PTAB"), seeking to challenge the validity of the '817 patent claims for obviousness under 35 U.S.C. § 103.   The PTAB declined to institute *inter partes* review.   *See* Doc. 117-6, Markman Brief, Ex. E, Decision; *see also* Doc. 60-1, decision.   The PTAB also rejected ADT's request for rehearing on the issue.   *See* Decision Denying Rehearing Request in IPR2017-01825 (Mar. 15, 2018) (Ex. B) at 2.

The USPTO's and the PTAB's findings establish that the claims include an inventive concept embodied in the particular graphical floor plan.   Doc. 117-5 and 117-6.   The Common Specification describes improving real-time notification capabilities of security systems by using a dynamically-rendered, event-specific, graphical floor plan that pinpoints exact location and condition of events.   *See* Doc. 102-2, '817 patent at 4:17-55, 5:1-28, 9:29-37; Doc. No. 78-1, '817 patent, APPENDIX A at Doc. 4, 30, 67-68; '817 patent, SN61228044 (Ex. A) ¶¶ 3, 6-7, 13-15.   The intrinsic record shows that conventional "[c]olorgraphic floor plans, images and layouts" "would only work on certain computing equipment" and required "vast amounts of computer file space" and "very long, computer screen build times."   Doc. 78-1, Amended Complaint, Ex. P, '817 patent Appendix A at Doc. 4.   The inventor states that to solve those problems, the

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patents at issue would "further enhance[] notification by pinpointing the specific problem area, reflecting the condition on a colorgraphic image that could be printed, forwarded or archived for future reference in as little as a few seconds." *Id.* The technology "minimizes the actual file size while maintaining the colorgraphic integrity." Doc. 78-1, '817 patent Appendix A at Doc. 4.

The claims themselves make it clear that the visual indicators must be superimposed on a map based on the event, the images must be hierarchically organized based on the event, and the images must be defined using vectors based on that same event. Doc. 102-2, '817 patent at 19:18-20:48.

II.   Law

Summary judgment is appropriate when materials in the record show that there are no genuine issues as to any material fact and that the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56. The movant has the initial burden of showing there is an absence of evidence to support the nonmoving party's case. *Bacchus Indus. Inc. v. Arvin Indus., Inc.*, 939 F.2d 887, 891 (10th Cir. 1991); *see Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986). Where the movant has made a prima facie showing, the opposing party cannot "rest upon his pleadings; the party must set forth specific facts showing there is a genuine issue for trial." *Abercrombie v. City of Catoosa,* 896 F.2d 1228, 1230 (10th Cir. 1990). To survive a motion for summary judgment, genuine issues of fact must exist that can only be resolved by the finder of fact because they could reasonably be resolved in either party's favor. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986). All patents are presumed valid. 35 U.S.C. § 282. Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law.

Intellectual Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332, 1338 (Fed. Cir. 2017).   The patent eligibility inquiry may contain underlying issues of fact.   *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016).   Whether an inventive concept "would have been well-understood, routine, and conventional" to those skilled in the art at the relevant time is a question of fact that must be proven by clear and convincing evidence.   *Berkheimer,* 881 F.3d 1at 1368 (Fed. Cir. 2018).   Summary judgments of invalidity under § 101 can be granted where there is no genuine issue of material fact as to patent eligibility.   *See, e.g., BSG Tech LLC v. BuySeasons, Inc.*, 899 F. 3d 1281, 1291 (Fed. Cir. 2018); *Capital One Fin. Corp.*, 850 F.3d at 1342.

"[A]nyone who '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."   *Berkheimer*, 881 F.3d at 1366 (quoting 35 U.S.C. § 101).   Patent protection does not extend to "patents that claim laws of nature, natural phenomena, and abstract ideas."   *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014) The Supreme Court has established a two-part framework for evaluating whether a patent claim is patent eligible under 35 U.S.C. § 101.   *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 217-18.   First, courts determine whether the asserted patent claims are directed to an abstract idea.   *Id.* at 218.   "The 'abstract ideas' category embodies 'the longstanding rule that '[a]n idea of itself is not patentable.'"   *Id.* at 218 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (rejecting as ineligible patent claims involving an algorithm for converting binary-coded decimal numerals into pure binary form)); *see also Parker v. Flook*, 437 U.S. 584, 594–595 (1978) (holding that a

mathematical formula for computing "alarm limits" in a catalytic conversion process was also a patent-ineligible abstract idea); *Bilski v. Kappos*, 561 U.S. 593, 609 (2010) (finding a series of steps for hedging risk in financial transactions an abstract idea). The two-stage inquiry "plainly contemplates that the first step of the inquiry is a meaningful one, i.e., that a substantial class of claims are *not* directed to a patent-ineligible concept." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). "The 'directed to' inquiry, therefore, cannot simply ask whether the claims involve a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions involves a law of nature and/or natural phenomenon— after all, they take place in the physical world." *Id.* "Rather, the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Id.* (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

The Federal Circuit court of Appeals does not "read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two." *Id.* (noting that "some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like). Further, the Federal Circuit does not "think claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis." *Id.* (noting that "[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route"). The relevant inquiry is "to ask whether the claims are directed to

an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis." *Id.* (noting "the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an "abstract idea" for which computers are invoked merely as a tool"). Further, describing the claims at too high a level of abstraction "and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule." *Id.* at 1335; *see* Alice, 573 U.S. at 217 (noting that "we tread carefully in construing this exclusionary principle [of laws of nature, natural phenomena, and abstract ideas] lest it swallow all of patent law").

Second, if the claims are directed to an abstract idea, courts consider the elements of the claim, both individually and as an ordered combination, to determine whether the additional elements "transform" the nature of the claim into patent-eligible subject matter. *Alice*, 573 U.S. at 217. This second step analysis is a "search for an inventive concept sufficient to "transform" the claim into a patent-eligible application of that abstract idea, that is, "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 (internal quotation omitted). Using computer functions that are "well-understood, routine, conventional activities previously known to the industry" does not provide an inventive concept. *Id.* at 225 (internal quotation omitted). Likewise, "[i]t is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea" where those components simply perform their "well understood, routine, conventional"

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functions. *In re TLI Commc'ns LLC*, 823 F.3d 607, 613 (Fed. Cir. 2016). In addition, attempting to limit the use of an abstract idea to a particular technological environment also does not transform the nature of a claim into patent-eligible subject matter. *Alice*, 573 U.S. at 226.

III.   DISCUSSION

The Court first finds that the claims at issue are not directed to an abstract idea. *See Enfish*, 822 F.3d at 1339. The defendants' characterization of the invention as "collecting, analyzing, and dispatching of information" describes the invention at too high a level of abstraction. Like the patent claims at issue in *Enfish*, the asserted claims of the patents amount to something more than the mere collection and analysis of information. As was the case in *Enfish*, the Court is "not faced with a situation where general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation," but are presented with claims "directed to a specific implementation of a solution to a problem in the software arts." *Enfish*, 822 F.3d at 1339.

The dynamically-rendered, event-specific, graphical floor plan is more than a generic way to hold the information to be provided to a user. The asserted claims of the patent are directed to a new way of interacting with the information conveyed by an alarm system.   The Common Specification sets out the deficiencies found in conventional graphical presentation approaches and provides for dispatching the information in a more timely manner.   The prosecution history describes the combination of features that make up the dynamically-rendered, event-specific, graphical floor plan. The Court finds the claims of the patents are not directed to an

abstract idea. *See, e.g., Versata Software, Inc. v. Zoho Corp.*, No. 13-371, 2015 WL 6506368 (W.D. Tex. Oct. 26, 2015) (Sparks, J.) (denying motion for summary judgment at step one of Alice where patent was directed to an improved remote monitoring interface using "user-configured indicators"); *see also Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1363 (Fed. Cir. 2018) (claims relating to "an improved user interface for electronic devices, particularly those with small screens" were not abstract); *Local Intelligence, LLC v. HTC America, Inc.*, No. 17-6437, 2018 WL 1697127, *7 (N.D. Cal. Apr. 6, 2018) (Davila, J.) (denying motion to dismiss and concluding that similarly specific improvement to user interfaces were also not an abstract idea).

Alternatively, even if the asserted claims were found to be directed to an abstract idea, the court would find that the evidence of record shows that using a dynamically-rendered, event-specific, graphical floor plan in a security system was a novel, inventive concept sufficient to transform the claims into a patent eligible application.

Construing the facts in Applied's favor, the Court finds that ADT has not presented clear and convincing evidence of patent ineligibility under 35 U.S.C. § 101. The PTO's findings concerning novelty and non-obviousness of the specific combination of features at issue, together with the PTAB's rejection of *inter partes* review, would lead a rational trier of fact to conclude that the claims of the ACI Patents include an inventive concept that was not well-known or conventional in the art. The evidence indicates that

there are concrete improvements in the recited computer technology. Accordingly, IT IS

ORDERED: defendant's motion for summary judgment is denied.

Dated this 7th day of August 2019.

BY THE COURT:

s/ Joseph F. Bataillon
Senior United States District Judge