IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No. 1:22-cv-00643

IVANTI, INC.,

Plaintiff,

v.

PATCH MY PC, LLC,

Defendant.

DEFENDANT PATCH MY PC, LLC'S MOTION TO DISMISS

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

Statutes

Other Authorities

Defendant Patch My PC, LLC ("Defendant" or "Patch My PC") respectfully moves to dismiss the Complaint of Ivanti, Inc. ("Plaintiff" or "Ivanti") pursuant to Fed. R. Civ. P. 12(b)(6).

I. SUMMARY OF ARGUMENT

This is a patent case. In 2014, the U.S. Supreme Court effected a sea change in patent law by announcing a new legal test concerning the patentability of abstract subject matter. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 218-21 (2014). In the wake of *Alice*, numerous software patents have been invalidated under 35 U.S.C. § 101 because they only seek to patent, in the guise of software, what a human could previously perform. Many courts have found patents invalid on this ground at the pleadings stage.

In this case, all three asserted patents, U.S. Patent No. 6,990,660 (the "'660 patent"), U.S. Patent No. 7,823,147 (the "'147 patent"), and U.S. Patent No. 8,407,687 (the "'687 patent") (collectively the "Asserted Patents") were drafted and issued before 2014 when *Alice* was decided, and all three claim unpatentable subject matter. The inventors describe their alleged invention (automated software updates) in terms of what a human previously performed (manual software updates). For this and other reasons, the claimed inventions at issue are not patentable and thus invalid under 35 U.S.C. § 101. Accordingly, Ivanti's Complaint ("Complaint" or "Compl.") for patent infringement should be dismissed.

Patent claims directed to an abstract idea and that lack an inventive concept are invalid under 35 U.S.C. § 101 for failure to describe patentable subject matter. *Alice*, 573 U.S. at 218-21. *Alice* set forth a two-step test to determine if claims are directed to patent-eligible subject matter. *Id.* Step one "determine[s] whether the claims at issue are directed to [a] patent-ineligible

concepts" (e.g., laws of nature, natural phenomena, abstract ideas), while step two is 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.

The Asserted Patents are software patents directed generally to determining the need for and installing software updates on user computers. Ivanti asserts that Patch My PC infringes at least claim 1 of each Asserted Patent ("Asserted Claims"). The Asserted Patents state that applying software updates was a task traditionally done by human administrators. The claims of the Asserted Patents fail step one of *Alice* because they do nothing more than implement this abstract idea in a computer environment using generic computer components and processes that are conventional and routine—processes such as storing information defining a software update at a server, gathering information about a target computer, sending target computer information back to the server, storing the target computer information in the server, comparing target computer information with information defining the software update to determine if the target computer needs the software update, attempting to download a software update, and monitoring attempted downloads. Other courts have consistently found that claims directed to updating computer software are unpatentable for claiming an abstract idea and found that automating the update process over a network using generic computer components is insufficient to transform the abstract idea into patent eligible subject matter.

The limitations of the Asserted Claims also fail to recite an inventive concept, and thus fail step two of *Alice*. The claims' recited elements (e.g., patch fingerprints, a discovery agent, an XML metadata query, etc.) merely implement the abstract idea without solving any technical

problem. It is well settled that an abstract idea does not become non-abstract merely by applying it to a particular field of use or technological environment. *Alice*, 573 U.S. at 222-23. Similarly, the recited types of data exchanged between a target computer and the update server (e.g., patch signature to request information, the specific hardware and software on the target computer, a location for an update) are basic types of data that are exchanged in any network-based software update process and do not represent inventive concepts. Moreover, merely automating a process traditionally performed by humans fails to meaningfully limit the claims. Thus, the Asserted Claims are invalid and Ivanti's Complaint should be dismissed.

II. THE PATENTS IN SUIT

The Asserted Patents are within the same patent family, and they have substantially identical figures and written descriptions.[1] The Asserted Patents claim priority to applications filed in 2000 in the wake of *State Street Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (holding that a patent related to a data processing system for implementing an investment strategy was directed to patent-eligible subject matter). *State Street* opened the floodgates to software patent filings. Wikipedia, the Free Encyclopedia, State Street Bank & Trust Co. v. Signature Financial Group, Inc., at https://en.wikipedia.org/wiki/State_Street_Bank_%26_Trust_Co._v._Signature_Financial_Group,_Inc. (last visited May 2, 2022.) The United States Patent and Trademark Office, lacking sufficient guidance on restricting the issuance of these patents, granted many of these applications. *Id.* But in 2014, with the Supreme Court's landmark decision in *Alice*, the

[1] For brevity, citations herein to the specification of the Asserted Patents are limited to the '660 patent, but all such cites have corresponding cites in the '687 and '147 patents.

pendulum swung the other way and patents issued during the *State Street Bank* era became subject to scrutiny and invalidation under *Alice*. *Id.*

The Asserted Patents relate to systems and methods "for discovering software updates, discovering if a given computer can use the software update, and then updating the computers with the software as needed automatically across a network without storing the updates on an intermediate machine within the network." '660 patent at Abstract. Applying software updates was a task traditionally done by human administrator, as admitted in the Asserted Patents. '660 patent at 2:24-67 ("Assume an administrator for an organization is charged with keeping one hundred servers up and running while supporting three thousand users connecting to these servers . . . Distribution of software patches and files and their subsequent application becomes the first indication of what might be called "administrator agony." . . . Traditionally, the administrator has been helped by being given extra staff."). The Asserted Patents purported to improve traditional, manual systems for discovering and applying software updates by automating the process so that computers within a network can receive software updates automatically as needed with little or no human oversight, which reduces the demand on a human administrator. '660 patent at 2:25-63 (referring to "administrator agony" and "high turnover of the administrator's job" arising when an example human administrator "is charged with keeping one hundred servers up and running while supporting three thousand users connected to these servers.").

Figure 5 of the '660 patent illustrates the systems described, with highlighting added to represent terms discussed further below including Target (user) Computer 500, Update Server 528, and Package Computer 567:

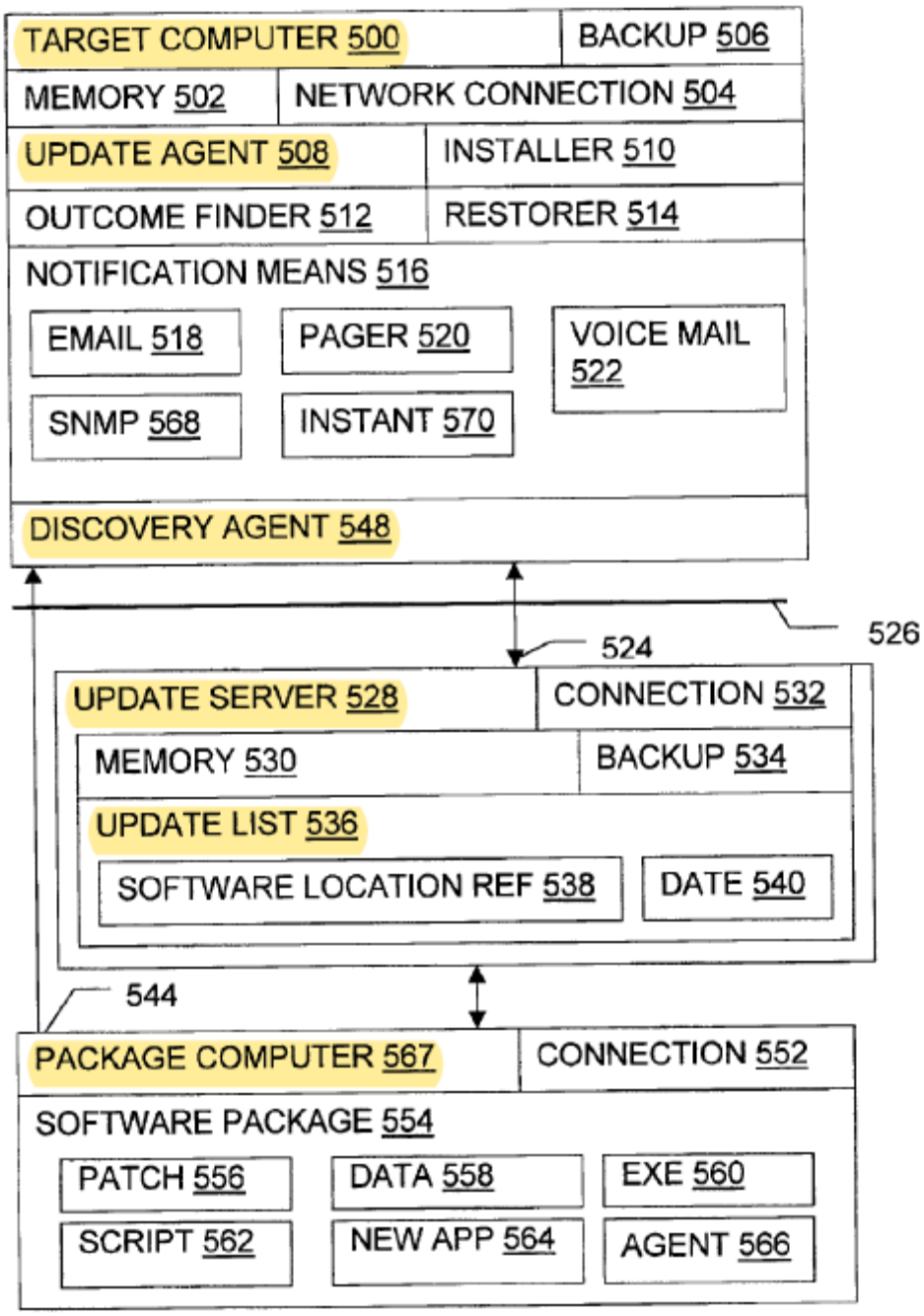
TARGET COMPUTER 500
BACKUP 506
MEMORY 502
NETWORK CONNECTION 504
UPDATE AGENT 508
INSTALLER 510
OUTCOME FINDER 512
RESTORER 514
NOTIFICATION MEANS 516
EMAIL 518
PAGER 520
VOICE MAIL 522
SNMP 568
INSTANT 570
DISCOVERY AGENT 548
526
524
UPDATE SERVER 528
CONNECTION 532
MEMORY 530
BACKUP 534
UPDATE LIST 536
SOFTWARE LOCATION REF 538
DATE 540
544
PACKAGE COMPUTER 567
CONNECTION 552
SOFTWARE PACKAGE 554
PATCH 556
DATA 558
EXE 560
SCRIPT 562
NEW APP 564
AGENT 566

Fig. 5

Of particular relevance to the § 101 analysis, all three patents admit that the purported invention is implemented using an "update agent [which] is capable of operating ***in the place of the human administrator, at the direction of the human administrator, to perform work in a manner similar to what could be performed if the human administrator was actually present at the machine***." '660 patent at 8:41-50 (emphasis added). The update agent "knows how to perform two basic tasks: 1) how to contact the update server 528 to retrieve a list of tasks and 2) how to start the tasks in the task list received." *Id.* at 8:50-52. Specifically, the update agent analyzes an update list 536, which contains patches or software updates that are needed on a specific target computer, to determine if any new packages or software patches need to be installed. The package is downloaded from the update server to the target computer if it is not already on the target computer. *Id.* at 17:21-52. The software needed to update the target computers may initially reside on a package computer before it is downloaded to the update server. *Id.* at 3:44-48, 9:20-23, 9:52-63.

Patch fingerprints may be stored on the update server. '660 patent at 3:59-63. The patch fingerprints comprise a signature block 910 used to identify what information is needed about a particular networked target computer, and an existence test 908 used to determine whether a specific update already exists on that computer. *See id.* at 15:22-23, 3:56-59 ("Patch fingerprints 902 give a recipe to allow a repository component to determine if a given software package (associated with the patch fingerprint), patch, driver, etc. should be loaded onto a computer in the system.").

A repository component includes an inventory library database 918 that contains hardware and software information about each target computer in the network. *Id.* at 3:59-66.

The repository component may be located on the update server or a separate location. *Id.* 13:49-51. A discovery agent is installed on the target computer and gathers information about the target computer to send back to the repository component. *Id.* at 4:4-14. The discovery agent also returns scan results for patch fingerprints, which indicates whether a specific patch associated with each patch fingerprint needs to be installed on a specific target computer. *Id.* at 4:10-14.

Turning to the claims of the patents, they all recite methods and systems for updating—or at least attempting to update—software on a target computer. As shown below, claim 1 of the '660 patent recites essentially the basic steps of updating as highlighted:

1. An automated method for at least attempting to update software in a system having a first target computer in a non-update state connected across a network to an update server in a pre-update state, the system also having a package computer which is inaccessible to the first target computer but accessible to the update server, and a repository component accessible to the first target computer and the update server, the method comprising the steps of:

(a) putting at least one patch fingerprint which defines a specific software update into the repository component, the patch fingerprint comprising:

a patch signature and an existence test, wherein the patch signature is configured to request target computer information from the first target computer, and

wherein the existence test is configured to use the target computer information provided via the patch signature to determine whether the specific software update is needed on the first target computer;

wherein the repository component is at least located at the update server and includes recommended configuration information for the first target computer, and

(b) gathering the target computer information about the first target computer via a discovery agent located on the first target computer;

wherein the discovery agent utilizes the patch signature to gather the target computer information,

wherein the target computer information includes at least hardware configuration information, registry information, software presence information, and software version information relative to the first target computer,

wherein the target computer information defines current configuration information of the first target computer,

(c) sending the target computer information back to the repository component located on the update server,

(d) storing the target computer information in the repository component located on the update server,

(e) comparing, at the update server, at least a portion of the gathered target computer information with the patch fingerprint using the existence test to determine whether the recommended configuration information of the first target computer matches the current configuration information of the first target computer and to determine whether the specific software update is absent from the first target computer and whether the specific software update has a dependency on at least one of another specific software update, a specific software, and a specific hardware;
(f) if a known condition is met, then placing at least one task identifier on an update task list, the task identifier specifying the first target computer, the update task list stored at the update server, the task identifier also specifying at least one download address which references a location on the package computer that contains a software update for the first target computer;
(g) starting a task in response to the task identifier, the task attempting a first download of the specific software update from the package computer to the update server,
(h) if the first download completes successfully, then attempting a second download of the specific software update from the update server to the first target computer, wherein during the attempting a second download step, the first target computer is inaccessible to the package computer via a firewall; and
(i) monitoring the attempted downloads for an outcome.

'660 patent (Ex Parte Reexamination Certificate 6,819), at 1:24-2:27.

The claims of the '147 patent and '687 patent include limitations similar to claim 1 of the '660 patent, and further recite that the claimed patch fingerprints contain an XML metadata query. XML, which stands for eXtensible Markup Language, is "a software and hardware-independent tool for storing and transporting data" which became a recommended language by the World Wide Web Consortium (W3) in 1998. *Introduction to XML*, W3 SCHOOLS, https://www.w3schools.com/xml/xml_whatis.asp (last visited May 15, 2022). XML is not even mentioned in the specification or drawings of the Asserted Patents—only in the claims of the '147 and '687 patent. XML queries are sent from the update server to a target computer. An XML metadata query is therefore required in combination with the discovery agent to gather target computer information. Claim 1 of the '147 patent recites a system of components that

generally implements a method like the one recited in claim 1 of the '660 patent and that uses XML metadata queries:

1. A system comprising:
(a) a package computer having a plurality of patch fingerprints;
(i) wherein the plurality of patch fingerprints includes at least a first patch fingerprint and a second patch fingerprint, different than the first patch fingerprint;
(i) wherein at least the first and second patch fingerprints each comprises at least one Extensible Markup Language (XML) metadata query, wherein the first patch fingerprint includes a first XML metadata query, and wherein the second patch fingerprint includes a second XML metadata query, different than the first XML metadata query;
(ii) wherein at least the first and second patch fingerprints are both associated with a specific software update;
(b) an update server in communication with the package computer;
(i) wherein the update server stores at least the first and second patch fingerprints of the package computer;
(ii) wherein the update server is located remote from the package computer; and
(c) a discovery agent configured to separately interact with both the first XML metadata query and the second XML metadata query to produce first target computer information relating to the first target computer;
wherein the system is configured to:
(A) send the first XML metadata query and the second XML metadata query of the first and second patch fingerprints from the update server to the discovery agent to gather the first target computer information;
(I) wherein the first target computer information is related to at least registry information, software presence information, and software version information relative to the first target computer;
(II) wherein a first portion of the first target computer information is associated with the first patch fingerprint and the first XML metadata query;
(III) wherein a separate second portion of the first target computer information is associated with the second patch fingerprint and the second XML metadata query;
(B) determine, at the update server based on the first target computer information, whether the specific software update is both applicable to and absent from the first target computer;
(i) wherein the determination step comprises:
(1) evaluating the first portion of the first target computer information to determine the applicability of the specific software update to the first target computer; and
(2) if the specific software update is applicable to the first target computer, then evaluating the second portion of the first target computer information to determine the presence or absence of:
(A) the applicable files;
(B) the applicable registry keys; and
(C) the applicable configuration information of the specific software update;

wherein the system is configured to, based on the determination (B), download the specific software update to one of (i) the update server and (ii) the first target computer.

'147 patent at 31:31-32:31 (highlighting added).

Claim 1 of the '687 patent recites a method similar to the '660 method implemented using XML queries:

1. A method comprising:
(a) storing at least one patch fingerprint at a package computer;
wherein each patch fingerprint comprises at least one extensible markup language (XML) metadata query;
wherein at least one of the patch fingerprints is associated with a specific software update;
(b) downloading the at least one patch fingerprint from the package computer to a repository component of an update server;
wherein the package computer is apart from the update server;
(c) sending the at least one XML metadata query from the update server to a first target computer;
(d) scanning the first target computer via a discovery agent located on the first target computer,
wherein the scanning comprises utilizing the at least one XML metadata query in combination with the discovery agent to produce target computer information;
wherein the target computer information is related to at least hardware configuration information, registry information, software presence information, and software version information relative to the first target computer;
wherein the first target computer is separated from the package computer via a firewall;
(e) sending the target computer information to the repository component located on the update server;
(f) storing the target computer information in the repository component located on the update server;
(g) comparing, at the update server, at least a portion of the target computer information with at least one of the patch fingerprints;
(h) determining, at the update server, in response to the comparing step (g), whether the specific software update is absent from the first target computer;
(i) downloading, in response to the determining step (h), the specific software update to the update server; and
(j) downloading, in response to the determining step (h) or the downloading step (i), the specific software update from the update server to the first target computer.

'687 patent at 31:59-32:36 (highlighting added).

Ivanti's Complaint specifically alleges infringement by Patch My PC of each of the claims reproduced above. The Complaint is open-ended, but no other claims are specified. (Compl. at 6, 21, 24.) Therefore, the present motion takes these three claims as representative of all claims of the Asserted Patents.

III. LEGAL STANDARDS

A. Motion To Dismiss Under Fed. R. Civ. P. 12(b)(6).

Federal Rule of Civil Procedure 12(b)(6) provides that a party may move to dismiss a complaint if it "fail[s] to state a claim upon which relief can be granted." Fed. R. Civ. P. 12(b)(6). To survive a motion to dismiss, a complaint must allege "a claim to relief that is plausible on its face," even taking all well-pleaded factual allegations as true. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 570 (2007)).

B. Motion To Dismiss For Patent-Eligibility Challenges Under 35 U.S.C. § 101.

A court may grant a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6) when the asserted patent claims unpatentable subject matter. *See Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1351 (Fed. Cir. 2014) (affirming grant of motion to dismiss because asserted claims were patent-ineligible under § 101). Subject matter eligibility under 35 U.S.C. § 101 is a threshold question in an infringement suit. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717 (Fed. Cir. 2014) (Mayer, J., concurring) ("[W]hether claims meet the demands of 35 U.S.C. § 101 is a threshold question, one that must be addressed at the outset of litigation."). Patents that do not claim patent-eligible subject matter are invalid and bestow no rights upon their holders;

complaints asserting such patents fail to state a claim for relief and should be dismissed. *Ultramercial*, 772 F.3d at 711-12.

C. Patent-Eligible Subject Matter Under 35 U.S.C. § 101.

35 U.S.C. § 101 "defines the subject matter that may be patented under the Patent Act." *Bilski*, 561 U.S. at 601. Under § 101, the scope of patentable subject matter encompasses "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." *Id.* (quoting 35 U.S.C. § 101). These categories are broad, but they are not limitless. Section 101 "contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 573 U.S. at 216.

The determination of whether a claim recites patent-eligible subject matter under § 101 is guided by the two-step analytical framework set forth in *Alice*. *Id.* at 218-21. The first step requires determining whether the claims are directed to a law of nature, physical phenomenon, or abstract idea. *Id*. If so, the second step requires determining whether the claim elements, considered individually and as an ordered combination, "amount to significantly more" than the patent-ineligible concept. *Id.* The second step has been characterized as a determination of whether the claims contain an "inventive concept" in the application of the ineligible concept to which the claims are directed. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

IV. ARGUMENT

A. *Alice* Step One: The Claims Are Directed To The Abstract Idea Of Updating Software Stored On A Computer.

All claims of the Asserted Patents are directed to the abstract idea of updating software stored on a computer. They recite the same basic steps: storing a patch fingerprint associated

with a specific software update on an update server; using a discovery agent to gather information relating to a first target computer; based on the first target computer information, determining whether the specific software update defined by the patch fingerprint is absent from the first target computer; and if the software update is absent, attempting to download the specific software update onto the update server and then onto the first target computer. Thus, "updating software stored on a computer" captures the claims' overall character.

In applying step one of the Alice framework, courts recognize that it is useful to "compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). When computer-related claims are at issue, courts also look to whether a claimed process has an analog in the "brick-and-mortar" context, *see, e.g.*, *Intellectual Ventures I LLC v. Symantec Corp.*, ("*Symantec*") 838 F.3d 1307, 1317 (Fed. Cir. 2016), and whether the claims purport to improve the functioning of the computer itself. *See, e.g.*, *Alice*, 573 U.S. at 224-25.

i. Courts have found claims directed to updating software stored on a computer to be abstract.

Four district court decisions have already analyzed comparable claims relating to the use of networks to update software or other features stored on computers, and all recognize that such claims are directed to abstract ideas. The Federal Circuit affirmed three of the decisions (two *per curiam* affirmed), and the third decision was not appealed.

In *MyMail Ltd. v. ooVoo, LLC*, the court found that the claims were directed to "the ineligible concept of updating toolbar software over a network without user intervention." No. 17-CV-004487-LHK, 2020 WL 2219036, at *22 (N.D. Cal. May 7, 2020), *aff'd*, No. 2020-1825,

2021 WL 3671364, at *4 (Fed. Cir. Aug. 19, 2021). Claim 1 of U.S. Patent No. 8,275,863, a representative claim of one asserted patent, recites:

> A method of modifying a toolbar, comprising the steps of:
> a user Internet device displaying a toolbar comprising one or more buttons, the toolbar defined by toolbar data stored in one or more toolbar-defining databases, the toolbar data comprising a plurality of attributes, each attribute associated with a button of the toolbar, wherein for each button of the toolbar, at least one of the plurality of attributes identifying a function to be performed when the button is actuated by the user Internet device;
> the user Internet device automatically sending a revision level of the one or more toolbar-defining databases to a predetermined network address;
> a server at the predetermined network address determining, from the revision level, the user Internet device should receive the toolbar update data;
> the user Internet device receiving toolbar update data from the Internet;
> the user Internet device initiating without user interaction an operation to update the toolbar data in accordance with the toolbar update data received;
> the user Internet device updating, by the operation, the toolbar data in accordance with the toolbar update data, thereby producing updated toolbar data, the updating comprising at least one of the following steps (a) and (b), each respectively comprising:
> (a) writing at least one new attribute to the original toolbar data, wherein the writing at least one new attribute to the toolbar data comprises changing the one or more buttons of the toolbar by adding a button; and
> (b) updating at least one attribute of the toolbar data; and
> the user Internet device displaying the toolbar as defined by the updated toolbar data.

The court found that that the claims were directed to the abstract idea of updating toolbar software over a network, and the individual claim elements were either generic computer components or routine activity insufficient to transform the claims into a patent-eligible application. *Id*. at *13, 19.

In *White Knuckle Gaming, LLC v. Electronic Arts Inc.*, the court assessed the patentability of claims directed to updating video game parameters stored on a computer via servers and the Internet. No. 1:15-cv-150-JNP-PMW, 2016 WL 3129133, at *3 (D. Utah June 2, 2016), *aff'd*, No. 2016-2286, 2017 WL 1279347 (Fed. Cir. Apr. 6, 2017) (*per curiam*). The district court held that the claims recite an abstract idea—*i.e.*, they do nothing more than recite

"the performance of a long-established business practice—re-writing software to produce an updated version—using a general purpose computer and the internet." *Id.* Ultimately, the *White Knuckle* court held the claims invalid under Section 101. *Id.*

In *Personalized Media Commc'n, LLC v. Amazon.com, Inc.*, the court held that claims directed to updates of the operating system software stored on a computer at a remote receiving station via a broadcast transmission network recite an abstract idea. 161 F. Supp. 3d 325, 331-32 (D. Del. 2015), a*ff'd*, 671 F. App'x. 777 (Fed. Cir. 2016) (*per curiam*). Claim 1 of the patent at issue [2] in Personalized Media recites:

> A method of reprogramming a receiver station, said receiver station including a programmable device of a specific version having a memory, a signal detector, and a receiver operatively connected to said signal detector, said method comprising the steps of:
>
> storing information specifying said specific version of said programmable device, wherein said specific version indicates a version of an operating system executing on said programmable device and controlling the processing capabilities of said programmable device;
>
> receiving an information transmission at said receiver, said information transmission including a control signal which designates a designated version of programmable device;
>
> passing said information transmission to said signal detector and detecting said control signal;
>
> determining whether said specific version is said designated version in response to said control signal;
>
> communicating operating system instructions to said memory only when said step of determining determines that said specific version is said designated version, wherein said communicating comprises erasing any operating system instructions stored within an erasable portion of said memory and then storing said communicated operating system instructions within said erasable portion of said memory; and
>
> executing said communicated operating system instructions to control operation of said programmable device.

[2] The *Personalized Media* decision misidentifies the asserted patent as U.S. Patent No. 7,883,252. The correct patent number is 7,783,252.

Here, again, the court concluded that the claims recite the abstract idea of updating operating instructions on a computer and are invalid. *Id*. at 332.

In *Intellectual Ventures I LLC v. Motorola Mobility LLC* ("Motorola Mobility"), the court recognized that claims describing distribution of software updates to users from a remote computer system via a network are directed to an abstract idea. 81 F. Supp. 3d 356, 364-67 (D. Del. 2015), *appealed on other grounds*, 870 F.3d 1320 (Fed. Cir. 2017).[3] Claim 181 of U.S. Patent No. 6,557,054, the representative claim of the patent at issue in *Motorola Mobility*, recites:

> A computer implemented method for distributing software updates from a remote computer system to a user station, the method comprising:
>
> presenting, at the user station, as a function of an identification of software already installed on the user station, a directory of software updates available for installation on the user station and not already installed on the user station;
>
> sending to the remote computer system over a communications network a selection of software updates for distribution to the user station, wherein the selection of software updates is selected at the user station as a function of the directory; and
>
> receiving from the remote computer system over the communications network software updates indicated by the selection.

The court concluded that the claims recite an abstract idea and are invalid. *Id*. at 367.

A comparison of the claims of the '660, '147, and '687 patents to those at issue in the decisions discussed above, particularly in *MyMail*, *Personalized Media,* and *Motorola Mobility*, demonstrates that the "character as a whole" of the Asserted Claims is no less abstract than the claims in these prior decisions. Here, as in these other cases, the claims are directed to the abstract idea of updating software on a computer from a remote source (e.g., package computer) via a network. *MyMail*, 2021 WL 3671364, at *5; *White Knuckle*, 2016 WL 3129133, at * 2-3;

[3] The court's judgment that the patent claims of U.S. Patent No. 6,557,054 were invalid as abstract was not appealed.

Personalized Media, 161 F. Supp. 3d at 332, *Motorola Mobility*, 81 F. Supp. 3d at 367. The fact that the Asserted Claims do the updating based on a determination made by comparing target computer information (e.g., the hardware and software on that machine) with a patch fingerprint (*see e.g.*, "comparing at least a portion of the gathered information with the patch fingerprint using the existence test" (the '660 patent claims)) is of no consequence. *See Personalized Media*, 161 F. Supp. 3d at 332 (finding claims that recited determining whether to update software based on a "specific version of an operating system" to be directed to an abstract idea). Thus, the claims of the '660, '147, and '687 patents are directed to an abstract idea.

ii. The claims merely implement human activity in a computer environment.

As admitted in the Asserted Patents, the claims are simply automating the process of determining the need for and installing software updates by moving the process from a human administrator to an automated environment. *See supra* Section II. Claims that merely automate activities routinely performed in the "brick-and-mortar" context consistently have been found to be directed to an abstract idea. *See, e.g., Symantec*, 838 F.3d at 1317 (holding claims directed to automated email processing to be abstract through comparison to a "brick-and-mortar" post office); *Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1007-08 (Fed. Cir. 2014) (holding claims directed to automated management of a computerized bingo game to be abstract); *Univ. of Fla. Rsch. Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367 (Fed. Cir. 2019) (invalidating claims of a "do it on a computer" patent directed to automating pen and paper methodologies in an attempt "to conserve human resources and minimize errors."). Here, despite the claimed use of a computing environment, a similar functionality was (and may still be) performed manually by humans. While use of the Internet and a computer environment to distribute software updates

improves the efficiency of the distribution process, an improvement in efficiency created by moving to a new technological environment does not render a patent non-abstract. *Alice*, 573 U.S. at 222-23. Thus, the analogy to the "brick-and-mortar" context further demonstrates that the character of the claims as a whole is directed to an abstract idea.

iii. The claims do not improve computer functionality.

A claim is not abstract if it improves the functioning of a computer itself. *Alice*, 573 U.S. at 224-26; *see also In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (noting that "a relevant inquiry at step one is 'to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea'"). Here, however, the claims describe generic techniques and components for updating software stored on a networked computer in general and functional terms: storing information about a software update, receiving information about a target computer, sending target computer information to a repository, storing target computer information, and receiving an update at the target computer. Nothing about the claims recites improvements in how these functions are performed. Rather, at most, the claims merely contemplate using a computer as a tool for implementing an idea, further demonstrating that the character of the claims as a whole is directed to an abstract idea. *See, e.g.*, *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017) (holding that automation of previously manual processes with a generic computer "does not constitute a patentable improvement in computer technology"); *Elec. Power Grp.*, 830 F.3d at 1354 (rejecting claims as invalid under § 101 where they were directed to abstract ideas that "use computers as tools," and not toward "an improvement in computers as tools").

With respect to the "patch fingerprint" recited in the claims, *PersonalWeb Technologies LLC v. Google LLC*, 8 F.4th 1310 (Fed. Cir. 2021) is instructive. There, the Federal Circuit affirmed a district court decision that certain claims of three patents were ineligible for patenting, and therefore invalid, under 35 U.S.C. § 101. PersonalWeb's patents related to data-processing systems for receiving a request containing a content-based identifier for a data item, comparing the content-based identifier to a plurality of values, and granting or disallowing access to the data items based on the comparison. PersonalWeb sued Google for patent infringement. The district court granted Google's motion for judgment on the pleadings that the asserted claims were ineligible under 35 U.S.C. § 101.

On appeal, the Federal Circuit affirmed, citing *Alice*, 573 U.S. 208, 216 (2014). Like the system and method claimed here, at step one, the Federal Circuit found that the data-management functions at issue "can be performed in the human mind" or "using a pencil and paper," and was therefore directed to an abstract idea. *PersonalWeb*, 8 F.4th at 1317. Regarding a feature comparable to the claimed "patch fingerprint," the Federal Circuit found content-based identifiers were abstract based on several prior cases. *Id.* Similarly here, the patch fingerprint merely automates a comparison function for determining whether a target computer needs a specific update. The Federal Circuit affirmed the grant of judgment on the pleadings because the claims were ineligible for patenting and therefore invalid. Dismissal on the pleadings is also appropriate here.

For all these reasons, *Alice* Step One is satisfied: the Asserted Claims are directed to an abstract concept.

B. *Alice* Step Two: The Claims Lack Other Meaningful Limitations To Make The Claims Patent-Eligible.

Because the claims are directed to an abstract concept under step one of *Alice*, step two requires a determination of whether the elements of the Asserted Claims, when considered individually or as an ordered combination, lack "an inventive concept" to ensure the patent claims amount to significantly more than an abstract idea. *See PersonalWeb*, 8 F.4th at 1318 (quoting *Alice*, 573 U.S. at 217-18). As shown below, the claims lack such an inventive concept.

Looking at the elements individually, the claims recite all steps and components in functional terms tied to the abstract concept of automating updates. No technical issues are addressed. Nor does the specification indicate any of these steps or components do anything other than automate what was already done by human administrators. Indeed, the specification and drawings of the patent do not even *mention* the claimed "XML metadata queries." Relatedly, the claims invalidated in *PersonalWeb* invoke a first and second "XML tag" used to match content and identifiers. 8 F. 4th at 1317. Moreover, when the generic computer elements are separated from the claims at issue here, what is left are unpatentable abstract ideas that were performed by a human. Indeed, the specifications of the patents admit this.

Additionally, there is nothing inventive about the claimed combination of elements. The target computer, update server, and package computer are all connected to the Internet. Sending, receiving, storing, and updating information in a repository or database are all generic, routine functions of networked computers that repeatedly have been held insufficient to provide an inventive concept that would confer patent-eligibility on an otherwise-abstract idea. *See, e.g.*, *MyMail*, 2021 WL 3671364, at *7; *White Knuckle*, 2016 WL 3129133, at *3-4; *Motorola*

Mobility, 81 F. Supp. 3d at 366-67; *Personalized Media*, 161 F. Supp. 3d at 332. Nothing in the claims at bar represent a "non-conventional and non-generic arrangement of known conventional pieces." *BASCOM Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

The Asserted Claims' other limitations also fail to provide an inventive concept. For example, although the claims recite patch fingerprints, much like the identifiers in *PersonalWeb*, the fingerprints are merely sets of information used for matching—here, to determine if a given software update should be loaded onto a target computer. The claims of the '147 patent and '687 patent recite a "discovery agent," which is a non-structural term lacking any specific technical improvement. *See MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1341-42 (Fed. Cir. 2019) (discussing that generic terms (e.g., "module," "mechanism," "element," "device") used as verbal constructs without structure specifically defined are "nonce words"). The '147 and '687 patent claims recite the use of XML metadata queries to produce target computer information, but XML was a well-known information format when the patents were filed and is referenced in the claims invalidated in *PersonalWeb*. Far from relying on this format as inventive, the patent specifications did not even bother to mention XML metadata queries at all. This demonstrates that XML metadata queries are not an inventive concept. Similarly, the types of information that, as described in the claims, are exchanged between the target computer and the update server (such as, a patch signature to request information, the specific hardware and software on the target computer, a location for an update) are basic types of data that are fundamental to the software update process.

"Mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology." *Credit Acceptance*, 859 F.3d at 1055. Indeed, claiming an electronically automated process without more suffers from the same shortcomings as claiming the generic use of a computer and fails to meaningfully limit the claims. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362-63 (Fed. Cir. 2015); *see also Motorola Mobility*, 81 F. Supp. 3d 356, 366 (D. Del. 2015) (noting that the addition of limitations "that the software updates be 'automatically installed on the user station' over 'the Internet' [] do not make the claimed invention any less abstract"). See also *PersonalWeb* 8 F.4th at 1313, 1316, 1319 (rejecting argument that the claimed implementation of a comparison to a file recited an inventive concept, holding that "merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea"). Because the Asserted Claims recite nothing significant and unconventional beyond the abstract idea of updating software stored on a computer, they are invalid.

V. CONCLUSION

For the foregoing reasons, Defendant respectfully requests that the Court grant Defendant's Motion to Dismiss on the grounds that the Asserted Claims of the '660 patent, the '147 patent, and the '687 patent are invalid under 35 U.S.C. § 101.

Dated: May 5, 2022

Respectfully, Submitted,

MERCHANT & GOULD P.C.

By: /s/ Peter A. Gergely_____
Peter A. Gergely
PGergely@merchantgould.com
Kristen M. Geary

KGeary@merchantgould.com
MERCHANT & GOULD P.C.
1801 California St., Suite 3300
Denver, Colorado 80202
Telephone (303) 357-1646
Facsimile: (612) 332-9081

Daniel W. McDonald
DMcDonald@merchantgould.com
MERCHANT & GOULD P.C.
191 Peachtree St. NE
Suite 3800
Atlanta, GA 30303
Telephone: (612) 581-1158

Peter S. Selness
PSelness@merchantgould.com
MERCHANT & GOULD P.C.
150 S. Fifth Street Suite 2200
Minneapolis, MN 55402
Telephone: (612) 332-5300
Facsimile: (612) 332-9081

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on May 5, 2022, a true and accurate copy of the foregoing was filed with the Clerk of the Court using the CM/ECF electronic filing system, which sent notification of the filing to:

R. Allan Bullwinkel
Michael F. Heim
HEIM, PAYNE & CHORUSH, LLP
1111 Bagby St. Ste. 2100
Houston, Texas 77002
Telephone: (713) 221-2000
Facsimile: (713) 221-2021
Email: abullwinkel@hpcllp.com
mheim@hpcllp.com

Emily L. Wasserman
DAVIS GRAHAM & STUBBS LLP
1550 17th Street, Suite 500
Denver, Colorado 80202
Telephone: (303) 892-7339
Email: emily.wasserman@dgslaw.com

/s/ *Jeremy Miller*