

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
Richmond Division

BRIDGE AND POST, INC.,  
Plaintiff,

v.

Civil Action No. 3:17-cv-094-JAG  
Civil Action No. 3:17-cv-710-JAG

VERIZON COMMUNICATIONS, INC., et al,  
Defendants.

**OPINION**

This case involves technology that helps businesses pry into peoples' personal preferences and privacy. Advertisers use targeted marketing techniques to place advertisements in places likely to reach interested consumers. For example, advertisers for pizza buy commercials during football games and advertisers for diapers buy ads in parenting magazines. This time-tested technique has migrated to the internet, where advertisers have used cookies, which track a user's internet browsing, to tailor advertisements to a person's interests based on their browsing habits. Cookies, however, do not do a good job of tracking consumer preferences, because internet users can mask or hide their cookies. Public resistance to spying has led technology companies to look for new ways to look over peoples' shoulders as they browse the internet. This case involves such high-tech snooping.

The plaintiff, Bridge and Post, Inc. ("Bridge and Post"), says that the defendants ("Verizon") have infringed on three of its targeted marketing patents. The first patent uses a persistent, unchangeable identifier associated with an internet-enabled device such as a computer or phone to track internet users and surpass cookies' limitations. The second patent enables advertisers to use that persistent identifier while still protecting people's personal information. The third patent tags internet traffic with an identifier to track a particular end user through an

encrypted process. The defendants have moved to dismiss, arguing that the patents are directed toward abstract ideas and do not offer a sufficiently inventive step to warrant patentability.

The Court agrees. The patents focus on the abstract ideas of targeted marketing, the transfer of encrypted information, and tracking. The patents do not offer a sufficiently inventive step over prior art, and instead use conventional technology and methods that fall short of patentability.

## I. BACKGROUND

Bridge and Post owns the three patents in suit, U.S. Patent No. 7,657,594 (the “’594 Patent”), U.S. Patent No. 8,862,747 (the “’747 Patent”), and U.S. Patent No. 9,659,314 (the “’314 Patent”).

For the ’594 Patent, the defendants say that Claim 1 is representative of the other claims, and Bridge and Post does not object to that characterization in its opposition brief.<sup>1</sup> Claim 1 reads:

A method for providing directed media to a user on a network, comprising:

receiving a request from the user to access a content provider web site over a network through a network access device operated by the user;

retrieving a persistent device identifier of the network access device;

determining a current network address of the network access device and one or more characteristics of the access device, wherein the current network address is assigned to the network access device by a network service provider for a present network access session;

retrieving historic information for the user, the historic information including patterns of usage for the network access device, and wherein the historic information comprises network access information including

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<sup>1</sup> It is not necessary to consider the system and medium claims separate from the method claims when “all the claims are substantially similar and linked to the same abstract idea.” *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014).

times and locations of network access and number of previous network accesses by the network access device;

retrieving location-centric information for a location from which the user is accessing the network;

generating a user profile based on the historic information for the user, the location-centric information, and the one or more characteristics of the access device;

storing the user profile as a record that identifies the user through the current network address and the persistent device identifier associated with the network access device;

incorporating into the user profile one or more group characteristics identifying a group with which the user is associated;

assigning a group identifier to the group based on the patterns of usage;

analyzing the retrieved device identifier, historic information, and location-centric information to determine a directed media component to be provided to the user or the group on the network access device[;] and

placing directed media referenced by the directed media component in the web site requested by the user request from the content provider, wherein the directed media comprises content that is customized to the user based on the user profile.

('594 Patent, Dk. No. 1-1.) To put the claims in plain English, the patent teaches a system that uses an unchangeable identifier associated with each internet-connected device to track the device's internet browsing history and physical location. The system uses that data to create a profile for the device, assign the device to a group based on the profile, and direct targeted advertisements to the device based on the profile and the group.

Before the invention claimed in the '594 Patent, internet advertisers used two techniques to target consumers. First, they used a computer's Internet Protocol (IP) address, but the address provided only a rough estimate of the computer's location and did not provide demographic information. Next, advertisers used cookies, which store a user's web browsing history as they

surf the web, but which users can disable or delete. The '594 Patent claimed an innovation over prior systems by using a persistent identifier associated with each internet-connected device that a user cannot change and which provides detailed geographic and demographic information.

The ability to track an internet user's browsing history as claimed in the '594 Patent created the issue protecting people's personal information in the process. The '747 Patent addresses these concerns, and claims:

A method of processing data sent from a user of a client computer over a network comprising:

intercepting a request that is in a hypertext transport protocol (HTTP) format from the client computer to a server computer over the network at a routing device within the network and coupled between the client and server computers, and prior to receipt by the server computer, wherein the network is the World Wide Web portion of the Internet, and further wherein the client computer is selected from the group consisting of: a personal computer, a mobile computing device, a cellular telephone, a personal digital assistant, a media playback device, and a gaming device;

extracting non-personal information about the user during the Media Access Control (MAC) layer process . . .

creating a unique device identifier associated with the hardware . . .

generating a local user identifier for the client computer . . .

and then encrypting the information and embedding the alphanumeric string in a portion of the HTTP header field that is normally unused. ('747 Patent, 16–17.)<sup>2</sup> In short, the patent claims a method of transporting internet users' information across the internet in a way that allows advertisers to employ targeted marketing but also protect the private personal information contained within the data packets such as medical or financial information.

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<sup>2</sup> Other claims in the '747 Patent include other methods of sending information such as using a supplemental server or decoding a tagged request. All claims are substantially similar and linked to the same ideas.

The '314 Patent has the same specification as the '747 Patent, and Claim 1 claims:

A method for improving the selection of media for delivery to a targeted user of a client computing device, comprising:

determining user information for a user;

generating a user identifier from the determined user information;

tagging, with a network routing device, network traffic that is bound for a destination site, the tagging including:

generating a requested identifier by encrypting the user identifier with an alphanumeric string, and

adding the request identifier to the network traffic to generate tagged network traffic;

transmitting the tagged network traffic to the destination site;

receiving from a requester associated with the designation site a decode request to decode the tagged network traffic;

decoding the tagged network traffic to obtain the user identifier;

retrieving stored user information associated with the user identifier; and

transmitting the stored user information to the requester.

('314 Patent, 17:16-38.) The patent takes advantage of the unique control that a network provider enjoys over the flow of internet traffic to allow the network provider to tag and track users. The patent contains two other independent claims at claims 20 and 21. The defendant claims that the two additional independent claims are substantially similar to the first claim, and the plaintiff does not object to that interpretation in its opposition.

## II. DISCUSSION<sup>3</sup>

### A. *Patent Validity*

Once a patent issues, the law presumes its validity and anyone attacking that validity carries the burden of proof to show invalidity by clear and convincing evidence. 35 U.S.C. § 282; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016). A court may properly find a patent invalidly abstract on a motion to dismiss. *FairWarning IP*, 839 F.3d at 1097 (“We have repeatedly recognized that in many cases 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)).

35 U.S.C. § 101 limits the subject matter eligible for patenting to “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” Despite the broad language in § 101, the “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107, 2116 (2013)).

To determine whether a patent is invalidly abstract, a court engages in a two-step inquiry. First, a court must determine whether the patent claim is “directed to” an abstract idea.

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<sup>3</sup> The defendants move to dismiss under Rule 12(b)(6) of the Federal Rules of Civil Procedure. A Rule 12(b)(6) motion gauges the sufficiency of a complaint without resolving any factual discrepancies or testing the merits of the claim(s). *Republican Party of N.C. v. Martin*, 980 F.2d 943, 952 (4th Cir. 1992). In considering the motion, a court must accept all allegations in the complaint as true and must draw all reasonable inferences in favor of the plaintiff. *Nemet Chevrolet, Ltd. v. Consumeraffairs.com, Inc.*, 591 F.3d 250, 253 (4th Cir. 2009) (citing *Edwards v. City of Goldsboro*, 178 F.3d 231, 244 (4th Cir. 1999)). The principle that a court must accept all allegations as true, however, does not apply to legal conclusions. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). To survive a Rule 12(b)(6) motion to dismiss, a complaint must state facts that, when accepted as true, “state a claim to relief that is plausible on its face.” *Id.* (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). The Court will not hold oral argument in this case because the patents are clearly invalid and oral argument would not aid in the decisional process.

*Alice*, 134 S.Ct. at 2355. If the claim is not directed towards an abstract idea, the court ends the inquiry and may find the patent valid. If the patent claim is directed to an abstract idea, the patent may still be valid if it contains an “inventive concept” sufficient to “transform the nature of the claim into a patent-eligible application.” *Id.* (quotation omitted).

Under the first step, a patent cannot claim to invent a method directed to a mental process that the human mind could carry out, such as sorting according to a set of rules. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016). A patent claim directed towards improvements in computer capabilities themselves, rather than at mere economic tasks for which computers are used, may survive at step one. For example, in *DDR Holdings, LLC v. Hotels.com, L.P.*, a problem existed on the internet where internet users would click on an advertisement while visiting a website and the advertisement would lure that user away from the first site to the advertiser’s site, which hurt the first site. 773 F.3d 1245, 1248–50 (Fed. Cir. 2014). The patent there claimed a hybrid website that would keep the consumer on the host site while also allowing them to view the advertisement. *Id.* The Federal Circuit found the patent to be directed at solving an internet-centric issue rather than an abstract idea. *Id.* In the realm of computer advancements, close calls at the first step will prevent courts from finding patents non-abstract and require the courts to move to the second *Alice* step. *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, (827 F.3d 1341, 1349 (2016) (citing *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016))).

At the second step, the Court considers the elements of each claim, “both individually and as an ordered combination,” to determine whether the additional elements amount to “significantly” more than just the abstract idea. *Alice*, 134 S.Ct. at 2355 (citation omitted). A patent cannot use a generic computer function to accomplish an abstract idea, such as using a

computer to sort through mail based on a certain pre-determined set of instructions that could be carried out (at a slower pace) by a human. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1314 (Fed. Cir. 2016). A patent claim need not invent an entirely new piece of technology, however. While generic computers used to perform generic computer functions remain ineligible, the “non-conventional and non-generic arrangement of known, conventional pieces” can add a sufficiently inventive concept. *Bascom*, 827 F.3d at 1350. For example, in *Bascom*, the patent at issue reconfigured the location on the network where certain filtering processes took place to overcome technical limitations inherent to the internet that prevented the secure filtering of content. *Id.* (“The inventive concept described and claimed in the ’606 patent is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server.”). The “key question” is “whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract’ idea for which computers are invoked merely as a tool.” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017) (quoting *Enfish*, 822 F.3d at 1335–36).

### ***B. The ’594 Patent***

The ’594 Patent is directed at the abstract idea of using persistent identifiers to implement targeted marketing and lacks a sufficiently innovative step to warrant patentability.

Under the first *Alice* step, the patent is directed at the abstract idea of using a persistent identifier to implement targeted marketing and does not improve computer functionality itself. Targeted marketing, or “gathering information about one’s intended market and attempting to customize the information then provided,” is an abstract idea at the first *Alice* step. *OpenTV, Inc.*



*v. Netflix, Inc.*, 76 F. Supp. 3d 886, 893 (N.D. Cal. 2014). Similarly, the concept of using an unchangeable identifier to track consumers is an abstract idea, like using someone's name or social security number. Applying these concepts to internet traffic does not take the patent outside of the realm of an abstract idea. Critically, the '594 Patent does not improve computer technology itself like the patent in *DDR* that solved a computer-centric issue by inventing a hybrid web page to prevent advertisers from redirecting web traffic away from a host site. Instead, the '594 Patent mirrors the patent in *Bascom* that claimed a software-based improvement to filtering on a computer by changing the location of certain processes. The patent here claims to overcome a technical limitation by swapping a changeable identifier with an unchangeable one. As in *Bascom*, this patent is essentially directed to an abstract idea at *Alice* step one, and the Court moves to step two.

The '594 Patent fails *Alice* step two because the claims do not contain an inventive concept that provides "significantly more" than the abstract idea of using a persistent, non-changeable identifier to implement targeted marketing over a computer network. As stated above, a patent can be said to add significantly more than the abstract idea where it invents a new technology or where it arranges conventional pieces in a new, inventive way. The '594 Patent does neither. First, Bridge and Post does not claim to invent the persistent identifier and therefore fails to invent a new technology. Second, the patent uses an abstract, undefined persistent identifier to overcome technical shortfalls on the network, and this claim does not invent a sufficiently new, non-conventional arrangement of known pieces to overcome a technical challenge as in *DDR* and *Bascom*.

As stated above, the "non-conventional and non-generic arrangement of known, conventional pieces" can add a sufficiently inventive concept at step two. *Bascom*, 827 F.3d at

1350. In *Bascom*, the patent claims reconfigured the location of a filtering process on a computer network to overcome a technological shortfall that prevented a computer system from performing the otherwise generic, patent-ineligible idea of filtering. Like the patent in *Bascom*, the '594 seeks to overcome a *technical limitation* of the internet to allow computers to achieve the abstract idea of targeted marketing. *Bascom* teaches that such an approach may lead to patentability in theory, but the patent claims here lack the required specificity to survive the defendant's motion. The '594 Patent claims the use of a "persistent device identifier," to carry out the patent's process. As written, the claim includes all possible ways to track an internet-connected device that a user cannot change. This generic language does not provide the kind of additional features or specific configuration needed to bring the patent outside the realm of "a drafting effort designed to monopolize the [abstract idea] itself." *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2351 (2014) (citation omitted); *West View Research, LLC v. Audi Ag, et al*, 2017 WL 1399699 (Fed. Cir. Apr. 19, 2017) ("[C]onventional elements at a high level of generality and do not constitute an inventive concept.") (citation omitted). The '594 Patent merely hijacks the idea of tracking customers based on unchangeable criteria and seeks to patent all methods of doing so on the internet.

Construing the patent claims in the light most favorable to Bridge and Post, the defendants have shown by clear and convincing evidence that the patent claims are directed to an abstract idea and lack an inventive concept sufficient to warrant patentability. The Court dismisses the claims related to the invalid '594 Patent.

### ***C. The '747 Patent***

The '747 Patent describes a system of transmitting encrypted information over the internet that allows targeted marketers to use persistent identifiers without compromising internet

users' confidential personal information. As with the '594 Patent, the '747 Patent is invalidly abstract.

Under the first *Alice* step, the patent here directs itself toward the abstract idea of sending information over the internet. Bridge and Post claims that the '747 Patent represents an improvement to technology itself like the hybrid website in *DDR*, but the patent's claims direct themselves more towards the abstract idea of sending and receiving information over the internet than to the specific idea of improving computer performance. As made clear in the claims, the '747 Patent intercepts data sent over the internet, extracts portions of the data, flags the communication with an identifier associated with an internet user's device, encrypts it, and then sends the data into the internet's normal data flow attached to an HTTP request. As with the '594 Patent, the claims here teach a varied configuration of data flow over the network but do not show an improvement to the network itself. Instead, the claims use conventional network pieces directed to sending encrypted information.

At the second *Alice* step, Bridge and Post claims that the '747 Patent represents an improvement to the internet itself. Problematically, however, the patent merely uses the internet in a generic way to track the browsing history and demographic information of a particular device. Most of the claim elements involve generic computer functions such as extracting and processing data. Such functions are on their own abstract. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). The two potential innovations lie where the '747 Patent intercepts and redirects the regular flow of internet traffic and where it uses an area of an HTTP signal which generally goes unused. Neither saves the patent.

First, merely redirecting traffic, whether considered separately or together with the other claims, does not represent substantially more than using standard servers on the internet to collect and transmit data. The process described does no more than “intercept” internet data by rerouting it and then extract information about the sender and create a unique identifier associated with the device that sent the request. This process is nothing more than an internet version of sorting mail, tracking information about its source and its destination, and conveying that information through an encrypted method.

Next, merely using a known header portion of an HTTP signal, even if that header generally goes unused, does not constitute an innovation to the internet itself. To the contrary, it merely uses existing parts of the Internet Protocol. When considering each claim element together, the patent’s reconfiguration and use of internet traffic does not represent “significantly more” than the abstract idea of sending secure information over the internet. The patent uses conventional internet technology in a largely conventional way, and is therefore invalidly abstract. *Id.* at 1348.

#### ***D. The '314 Patent***

The '314 Patent is directed at the abstract idea of tagging and tracking an object through an encrypted means, and is invalid. At *Alice* step one, claims that provide only generic descriptions of their steps without any “special rules or details of the computers [or] databases” fail. *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017). The '314 Patent claims a method of tagging network traffic with an identifier associated with an internet user, encrypting the information, and then tracking that user. The concepts of tagging, tracking, and encrypting are abstract ideas at *Alice* step one.

At *Alice* step two, a patent can add significantly more than an abstract idea where it uses conventional pieces in a nonconventional way to overcome a computer-centric issue. A patent's claims cannot, however, "simply be an instruction to implement or apply the abstract idea on a computer." *Bascom*, 827 F.3d at 1349. Instead, the claims must provide a detailed explanation of the claimed invention. *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1315 (Fed. Cir. 2016) (finding patent eligibility where "[t]he claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results") In *Secured Mail*, the Federal Circuit recently invalidated a patent "directed to the abstract process of communicating information about a mail object using a personalized marking." 873 F.3d at 910. The patent claims in *Secured Mail* used barcodes on parcels and used computers to allow senders to track the packages, but the Federal Circuit found that the claims were directed to the abstract idea of using a marking on a parcel to communicate information about the parcel. *Id.* at 911.

The patents here rely on the general idea of using a mark to identify a parcel but apply it to packages of data over the internet as opposed to packages sent through the mail. Individually, the '314 Patent claims generically describe a process that creates an identifier for each internet user and then tags the internet traffic coming to and from that user with the identifier through an encrypted process over the internet. Taken as a whole, the patent provides only a generalized recitation of standard internet components and a process which highly resembles a physical process of tagging and tracking that would not be patent eligible in the physical world. As with the process in the '594 Patent, these non-specific claims lack technical detail and fail to cite a specific way to solve a specific computer-centric problem as in *DDR*. *Id.* at 912. The claims are therefore invalid.

### ***D. Judicial Estoppel***

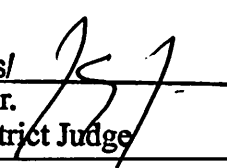
Bridge and Post argues that the defendants should be estopped from claiming that the patents here are invalid because the defendant Verizon applied for a patent with very similar technology to the patents here and argued to the Patent and Trademark Office (the “PTO”) that its patent is not invalidly abstract. This argument fails.<sup>4</sup> Even if Verizon did make inconsistent invalidity arguments before the PTO, “contrary positions . . . with respect to patents not at issue in this case . . . before another tribunal do not permit this Court to confer patent eligibility on otherwise ineligible subject matter.” *Morsa v. Facebook, Inc.*, 77 F. Supp. 3d 1007, 1014 (C.D. Cal. 2014), *aff’d*, 622 F. App’x 915 (Fed. Cir. 2015) (citing *McRO, Inc. v. Namco Bandai Games Am., Inc.*, No. CV 12–10322–GW FFMX, 2014 WL 4749601, at \*7 (C.D.Cal. Sept. 22, 2014)). In short, an invalidly abstract patent cannot become patent-eligible because of the arguments made by a defendant before the PTO, especially where the defendant argued the validity of a patent not at issue in the case.

### **III. CONCLUSION**

For the reasons stated above, the patents at issue in this case are each directed towards an abstract idea and lack an inventive concept that provides significantly more than the abstract idea. The Court therefore finds the patents invalid and dismisses the case.

The Court directs the clerk to send a copy of this Opinion to all counsel of record. An appropriate Order shall issue.

Date: March 15, 2018  
Richmond, VA

  
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John A. Gibney, Jr.  
United States District Judge

<sup>4</sup> Bridge and Post makes similar claims in its opposition to the motion to dismiss the ’314 Patent, and for the same reasons as discussed here, the Court rejects the argument.