IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS   )
MACHINES CORPORATION,   )
)
    Plaintiff,   )
)
    v.   )   Civil Action No. 15-137-LPS-CJB
)
THE PRICELINE GROUP INC.,   )
KAYAK SOFTWARE CORPORATION,   )
OPENTABLE, INC., and   )
PRICELINE.COM LLC,   )
)
    Defendants.   )
)

REPORT AND RECOMMENDATION

Presently pending before the Court is a motion to dismiss for failure to state a claim under

Rule 12(b)(6) of the Federal Rules of Civil Procedure (the "Motion"), filed by Defendants The

Priceline Group Inc., Kayak Software Corporation, OpenTable, Inc. and priceline.com LLC

(collectively, "Priceline" or "Defendants"). (D.I. 18) Defendants argue that Plaintiff

International Business Machines Corporation's ("IBM" or "Plaintiff") asserted United States

Patent Nos. 7,631,346 (the "'346 patent"), 5,961,601 (the "'601 patent"), 5,796,967 (the "'967

patent") and 7,072,849 (the "'849 patent") (collectively, the "Asserted Patents") are directed to

non-patent-eligible subject matter pursuant to 35 U.S.C. § 101 ("Section 101"). For the reasons

that follow, the Court recommends that Defendants' Motion be DENIED without prejudice.

I.   PROCEDURAL BACKGROUND

IBM commenced this patent infringement action on February 9, 2015. (D.I. 1) On

February 12, 2015, Chief Judge Leonard P. Stark referred to the Court for resolution all matters

relating to scheduling and any motions to dismiss, stay, and/or transfer venue that are filed in the

case. (D.I. 9) Defendants filed the instant Motion in lieu of answering, and initial briefing was

completed on July 30, 2015. (D.I. 38) Subsequent to Defendants' reply brief, Plaintiff filed a

motion seeking leave to file a ten-page sur-reply brief ("Plaintiff's Motion to File a Sur-Reply"),

(D.I. 32), which Defendants opposed, (D.I. 33).[1] The Court held oral argument on Defendants'

Motion on October 27, 2015. (D.I. 54 (hereinafter, "Tr."))

II.   STANDARD OF REVIEW

A.   Standard of Review Regarding a Rule 12 Motion that Challenges Patent Eligibility Pursuant to Section 101

Pursuant to Rule 12(b)(6), a party may move to dismiss the plaintiff's complaint based on

the failure to state a claim upon which relief can be granted. Fed. R. Civ. P. 12(b)(6). The

sufficiency of pleadings for non-fraud cases is governed by Federal Rule of Civil Procedure 8,

which requires "a short and plain statement of the claim showing that the pleader is entitled to

relief[.]" Fed. R. Civ. P. 8(a)(2). In order to survive a motion to dismiss pursuant to Rule

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[1]   The Court has reviewed Plaintiff's Motion to File a Sur-Reply and the relevant briefs. The primary asserted justification for this motion is that Defendants raised "new arguments" regarding certain "'brick and mortar'" scenarios in their reply brief, to which Plaintiff must respond. (D.I. 32 at 1-2) The Court has determined, however, that the arguments offered in Defendants' reply brief are proper (and are not "new"), because they either expound on arguments made in Defendants' opening brief, or because they involve content that is directly responsive to arguments made in Plaintiff's answering brief. *See St. Clair Intellectual Prop. Consultants, Inc. v. Samsung Elecs. Co. Ltd.*, 291 F.R.D. 75, 80 (D. Del. 2013) ("A Court may grant leave to file a sur-reply if it responds to *new* evidence, facts, or arguments.") (emphasis added). Additionally, to the extent that Plaintiff's Motion to File a Sur-Reply was motivated by the need to respond to judicial opinions cited in Defendants' reply brief that were issued after the filing of Plaintiff's answering brief, (D.I. 32 at 2), the Court notes that Plaintiff had the ability to address these decisions during oral argument (and did so, in certain instances). In reaching the conclusion that no sur-reply brief should be permitted, the Court is also influenced by the fact that Plaintiff communicated to Defendants its intent to seek leave to file a sur-reply two weeks *before* Defendants had even filed their reply brief. (D.I. 33 at 4 & D.I. 34) For all these reasons, the Court hereby DENIES Plaintiff's Motion to File a Sur-Reply.

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12(b)(6), "a complaint must contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (internal quotation marks and citation omitted). In assessing the plausibility of a claim, the court must "construe the complaint in the light most favorable to the plaintiff, and determine whether, under any reasonable reading of the complaint, the plaintiff may be entitled to relief." *Fowler v. UPMC Shadyside*, 578 F.3d 203, 210 (3d Cir. 2009) (internal quotation marks and citation omitted).

Here, the Motion filed pursuant to Rule 12(b)(6) is used to assert an affirmative defense—that the patents are subject matter ineligible under Section 101. In that scenario, dismissal is permitted only if the well-pleaded factual allegations in the Complaint, construed in the light most favorable to the plaintiff, suffice to establish the defense. *See Jones v. Bock*, 549 U.S. 199, 215 (2007); *Kabbaj v. Google, Inc.*, Civ. No. 13-1522-RGA, 2014 WL 1369864, at *2 n.2 (D. Del. Apr. 7, 2014); *see also Genetic Techs. Ltd. v. Agilent Techs., Inc.*, 24 F. Supp. 3d 922, 927 (N.D. Cal. 2014).

Patentability under Section 101 is a "threshold inquiry" and a question of law. *In re Bilski*, 545 F.3d 943, 950-51 (Fed. Cir. 2008), *aff'd*, *Bilski v. Kappos*, 561 U.S. 593 (2010). Yet this question of law is also one that "may be informed by subsidiary factual issues." *CyberFone Sys., LLC v. Cellco P'ship*, 885 F. Supp. 2d 710, 715 (D. Del. 2012) (citing *In re Comiskey*, 554 F.3d 967, 976 (Fed. Cir. 2009)). Some members of the United States Court of Appeals for the Federal Circuit have suggested that "any attack on an issued patent based on a challenge to the eligibility of the subject matter must be proven by clear and convincing evidence[,]" *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1304-05 (Fed. Cir. 2013) (Rader, J., concurring-in-part and dissenting-in-part), but at least one other member of that Court has come to the opposite

conclusion, *see Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 720-21 (Fed. Cir. 2014)

("*Ultramercial III*") (Mayer, J., concurring), all of which has led to some uncertainty regarding

the appropriate standard of proof in Section 101 cases, *see Intellectual Ventures I LLC v.*

Symantec Corp., 100 F. Supp. 3d 371, 378-79 (D. Del. 2015) (citing cases). However, even to

the extent that the "clear and convincing" standard of proof is applicable to Section 101

challenges, it would apply only to the resolution of factual disputes, and not to resolution of pure

issues of law. *See TriPlay, Inc. v. WhatsApp Inc.*, Civil Action No. 13-1703-LPS, 2015 WL

1927696, at *5 (D. Del. Apr. 28, 2015) (citing cases), *adopted in all substantive respects*, 2015

WL 4730907 (D. Del. Aug. 10, 2015); *see also Affinity Labs of Tex., LLC v. Amazon.com, Inc.*,

No. 6:15-CV-0029-WSS-JCM, 2015 WL 3757497, at *5 (W.D. Tex. June 12, 2015). And as to

the instant Motion, filed at the pleading stage (a stage at which any facts that might be in dispute

are to be construed in the light most favorable to the plaintiff), the "clear and convincing"

standard of proof should not come into play at all. *See Blue Spike, LLC v. Google Inc.*, Case No.

14-cv-01650-YGR, 2015 WL 5260506, at *4 (N.D. Cal. Sept. 8, 2015); *Shortridge v. Found.*

Constr. Payroll Serv., LLC, Case No. 14-cv-04850-JCS, 2015 WL 1739256, at *7 (N.D. Cal.

Apr. 14, 2015); *Modern Telecom Sys. LLC v. Earthlink, Inc.*, No. SA CV 14-0347-DOC, 2015

WL 1239992, at *7-8 (C.D. Cal. Mar. 17, 2015).

B.   Need for Claim Construction

There is no hard-and-fast rule that a court must construe terms in the claims at issue

before it performs a Section 101 analysis. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of*

Can. (U.S.), 687 F.3d 1266, 1273 (Fed. Cir. 2012) ("[W]e perceive no flaw in the notion that

claim construction is not an inviolable prerequisite to a validity determination under [Section]

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101.""). In some cases, claim construction is unnecessary. *See, e.g., Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988, 991-93 & n.1 (Fed. Cir. 2014) (holding that a patent claim was subject matter ineligible under Section 101, where the district court did not engage in claim construction, and where the plaintiff "d[id] not explain which terms require construction or how the analysis would change"). In other cases, such as when a Section 101 motion would be well taken even were a plaintiff's proposed claim construction to be accepted, a court may adopt the plaintiff's construction (or the construction most favorable to the plaintiff) for the purposes of the motion. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014); *Genetic Techs. Ltd. v. Lab. Corp. of Am. Holdings*, Civil Action No. 12-1736-LPS-CJB, 2014 WL 4379587, at *5-6 (D. Del. Sept. 3, 2014) (citing cases). Alternatively, the Court may decline to rule on a Rule 12 motion prior to engaging in claim construction, *see, e.g., Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc.*, 66 F. Supp. 3d 829, 835 (E.D. Tex. 2014) (Bryson, J., sitting by designation), or may deny the motion if it appears there are potential constructions of key claim terms that, if adopted, would render the claims subject matter eligible, *see Execware, LLC v. BJ's Wholesale Club, Inc.*, C.A. No. 14-233-LPS, 2015 WL 5734434, at *2-5 (D. Del. Sept. 30, 2015).

C. **Considerations Relevant to Deciding a Rule 12 Motion that Challenges the Eligibility of Multiple Patent Claims, Based on the Analysis of a Single Representative Claim**

In *Cronos Techs., LLC v. Expedia, Inc.*, C.A. No. 13-1538-LPS, C.A. No. 13-1541-LPS, C.A. No. 13-1544-LPS, 2015 WL 5234040 (D. Del. Sept. 8, 2015), our Court noted "several considerations relevant to deciding a Rule 12 motion that challenges the patent eligibility of multiple patent claims based on analysis of a single representative claim." 2015 WL 5234040, at

*2. The *Cronos* Court set out these considerations as follows:

> First, are all non-representative claims adequately represented by the representative claim (i.e., do *all* of the challenged claims relate to the *same* abstract idea and do any of the non-representative claims add one or more inventive concepts that would result in patent eligibility)? Second, are there issues of claim construction that must be decided before resolving the motion? Finally, is there *any* set of facts that could be proven relating to preemption, questions of patentability, or whether the claims "solve a technological problem," that would result in a determination that one [] or more of the claims are patent-eligible?

Id. (citations and footnotes omitted) (emphasis in original); *see also Execware*, 2015 WL 5734434, at *2.

D.   Assessing Patentable Subject Matter

Patent-eligible subject matter is defined in Section 101 of the Patent Act:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. In choosing such expansive terms "modified by the comprehensive 'any,'

Congress plainly contemplated that the patent laws would be given wide scope." *Diamond v.*

Chakrabarty, 447 U.S. 303, 308 (1980).

Yet while the scope of Section 101 is broad, there is an "important implicit exception [to

it]: [l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty.*

Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014) (citation omitted); *see also Mayo*

Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1293 (2012). "Phenomena of

nature, though just discovered, mental processes, and abstract intellectual concepts are not

patentable, [because] they are the basic tools of scientific and technological work." *Prometheus*,

132 S. Ct. at 1293 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

The Supreme Court of the United States has also recognized, however, that "too broad an interpretation of this exclusionary principle could eviscerate patent law." *Id.*; *see also Alice*, 134 S. Ct. at 2354. This is because "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Prometheus*, 132 S. Ct. at 1293; *see also Alice*, 134 S. Ct. at 2354. To that end, it has explained that "an *application* of a law of nature, [natural phenomena or abstract idea] to a known structure or process may well be deserving of patent protection." *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (emphasis in original).

In terms of the process used to analyze patent eligibility under Section 101, the Federal Circuit has explained that a court should first identify whether the claimed invention fits within one of the four statutory classes set out in the statute: processes, machines, manufactures, and compositions of matter. *Ultramercial III*, 772 F.3d at 713-14. The court must then assess whether any of the judicially recognizable exceptions to subject matter eligibility apply, including whether the claims are to patent-ineligible abstract ideas. *Id.* at 714.[2]

In *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), the Supreme Court confirmed the framework to be used in order to distinguish patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts:

> First, we determine whether the claims at issue are directed to one

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[2]   There is no dispute in this action that the claims at issue fall into one of the applicable statutory classes. The dispute here is about whether the claims are drawn to patent-ineligible abstract ideas, and so the Court will focus its analysis on that issue.

of those patent-ineligible concepts. . . . If so, we then ask, "[w]hat else is there in the claims before us?" . . . To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. . . . We have described step two of this analysis as a search for an "'inventive concept'"—*i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

Alice, 134 S. Ct. at 2355 (quoting *Prometheus*, 132 S. Ct. at 1294-98) (citations omitted; alterations in original); *see also Parker v. Flook*, 437 U.S. 584, 594 (1978). Since *Alice*, the Federal Circuit has recognized that "[d]istinguishing between claims that recite a patent-eligible invention and claims that add too little to a patent-ineligible abstract concept can be difficult, as the line separating the two is not always clear." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014).

III. DISCUSSION

IBM alleges that various websites under Defendants' control infringe the four Asserted Patents, (D.I. 1 at ¶¶ 1, 25); all four patents are at issue in the Motion. The Court will discuss the subject matter eligibility of each patent in turn.[3]

A.   '601 patent

1.   The Invention

The '601 patent is entitled "Preserving State Information in a Continuing Conversation

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[3]   The Court will focus its discussion on the claims of the patents that received the lion's share of attention by the parties. Below, the Court concludes that at this stage, Defendants have not met their burden of demonstrating the patent-ineligibility of each of these assertedly representative claims. Thus, it is not necessary at this time for the Court to expend additional resources assessing the remaining claims of the Asserted Patents.

Between a Client and Server Networked Via a Stateless Protocol" and was issued on October 5, 1999. It describes an invention meant to allow computers to preserve state while communicating over networks (such as the Internet) using stateless protocols (such as HyperText Transfer Protocol (or "HTTP")). ('601 patent, Abstract; *see also id.*, col. 1:8-15)

The patent's specification explains that network protocols provide standard methods that permit computers to communicate with each other by indicating how data should be formatted for receipt and transmission across networks (such as between, for example, clients and servers). (*Id.*, col. 3:15-18) Some network protocols are stateless, meaning that every communication between a client and server is treated independently, such that the server does not maintain a record of previous communications. (*Id.*, cols. 2:25-28, 3:66-4:3) One such stateless protocol is HTTP, which the patent describes as "[t]he most common method of communicat[ion]" between users and website servers. (*Id.*, cols. 2:25, 4:32-33) Webpage documents (which make up websites) that use HTTP are formatted with a language known as HyperText Markup Language ("HTML"). (*Id.*, col. 4:45-59) An internet user can switch among different webpages by clicking on highlighted words or phrases known as hyperlinks. (*Id.*, col. 1:51-54) These clickable links are examples of "continuations"—a new request that a client sends to the server, with the server responding with one or more continuations. (*Id.*, col. 2:48-52) Therefore, through the process of clicking through different hypertext links, a client engages in a conversation with a server. (*Id.*, cols. 2:48-63, 7:8-10)

Because HTTP is stateless, there is no inherent way for computers to keep track of the state of an ongoing series of communications between a client and a server utilizing HTTP. (*Id.*, col. 7:32-40) Thus, for instance, if a client requests a page numerous times, the server does not

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maintain any history or knowledge of the previous connections. (*Id.*, col. 7:32-34) And when a

client clicks on a hyperlink, there is no way for the client to communicate additional information

with the request. (*Id.*, col. 7:34-36) While usage of stateless protocol provides for simple and

efficient communication between computers, there are circumstances in which it is desirable to

preserve state information during communications. (*Id.*, cols. 4:3-6, 7:37-39) For example, a

server handling business transactions using HTTP needs state information (such as the client's

user ID and the transaction number) in order to effectively process orders. (*Id.*, col. 7:41-45; *see

also* D.I. 1 at ¶ 20 (explaining that "online merchants can use state information to keep track of a

client's product and service selections while the client is shopping and then use that information

when the client decides to make a purchase"))

The patent describes several "[c]urrent [m]ethods for [h]andling [s]tate on the [w]eb."

('601 patent, col. 7:49) One such method is for a client to pass arguments to a Common Gateway

Interface ("CGI") program, but it can be cumbersome for a client to follow the exact command

syntax required to utilize this method. (*Id.*, cols. 4:33-36, 7:50-57) An easier, more convenient

way for a client to invoke a CGI program is to allow the user to input arguments via HTML

"forms"—the user fills in the appropriate fields and clicks the "send" button to send the

information to the server. (*Id.*, col. 7:57-66) These forms may include hidden variables

containing state which are not displayed to clients but which are passed to the server when the

client sends the form. (*Id.*, col. 8:3-6) The client and server pass state information back and

forth, with the server creating HTML forms on the fly and embedding the state information in

hidden fields, and with the client completing and submitting the forms back to the server. (*Id.*,

col. 8:20-32) The drawback to this approach is that if a client wishes to browse different HTML

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files in the middle of a session, the state information will be lost as soon as the client switches to a different HTML file. (*Id.*, col. 8:33-46) Another solution in the prior art, utilized by Netscape Communications, entailed the use of "cookies": small files stored at the client's computer that keep track of state information. (*Id.*, cols. 8:66-9:10) The cookie approach has several disadvantages, however—it is cumbersome to maintain, it is only compatible with certain clients and servers, and it renders it difficult to keep track of state information relating to multiple conversations on the same computer. (*Id.*, col. 9:11-27)

The invention purports to claim a mechanism for preserving state in a stateless protocol that overcomes the drawbacks of these prior art solutions. (*Id.*, cols. 7:37-40, 8:47-49, 9:28-43) The patentee's claimed method and system entails the preservation of state by "recursively embedding" the state information in continuations, such as hypertext links, during a conversation. (*Id.*, Abstract & cols. 9:57-10:3)

The '601 patent contains six independent claims (claims 1, 14, 27, 40, 51 and 60). The asserted claims are claims 1-12, 14-25, 27-38, 40-49 and 51-68. (Defendants' Motion Presentation, Slide 30)[4] Claim 1 claims:

> 1. A computerized method for preserving state information in a conversation between a client adapted to request services from one or more servers which are networked via a stateless protocol to the client, said services including one or more of data and programs which the client may request, wherein the conversation is a sequence of communications between the client and one or more servers for said services wherein each response from the server includes one or more continuations which enable another request for said services and wherein the client must invoke one of the continuations to continue the conversation, the method comprising

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4 While IBM had not yet identified the claims that it would be asserting in this case at the time of briefing on the Motion, it had done so by the time of oral argument. (Tr. at 35)

the steps of:

> [(1)] the client initiating the conversation with the server using the stateless protocol;
>
> [(2)] detecting when the request for a service requires preservation of the state information;
>
> [(3)] performing said service and identifying all continuations in an output from said service, in response to said step of detecting;
>
> [(4)] recursively embedding the state information in all identified continuations; and
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> [(5)] communicating the output to the client, in response to said step of embedding; wherein the state information is preserved and provided to all services for the duration of the conversation.

(*Id.*, cols. 17:66-18:23)

2. *Alice*'s step one

Under step one of *Alice*, "the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter" (here, an abstract idea). *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see also Execware, LLC*, 2015 WL 5734434, at *4; *Gammino v. Am. Tel. & Tel. Co.*, — F. Supp. 3d — , C.A. No. 12-666-LPS, 2015 WL 5234028, at *5 (D. Del. Sept. 8, 2015).[5] "The 'abstract ideas' category embodies 'the longstanding rule that [a]n idea of itself is not patentable.'" *Alice*, 134 S. Ct. at 2355 (quoting *Gottschalk*, 409 U.S. at 67). The abstract idea can be, but need not amount to, a "preexisting, fundamental truth" about the natural world "that has always existed," or a "method

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[5]   Chief Judge Stark has relied on this "character as a whole" analysis from *Internet Patents* in assessing *Alice*'s first step, *see Execware*, 2015 WL 5734434, at *4, and so will the Court here.

of organizing human activity" (such as a "longstanding commercial practice"). *Id.* at 2356

(citations omitted); *see also DDR Holdings*, 773 F.3d at 1256-57; *cf. CLS Bank*, 717 F.3d at 1286

(explaining that a claim directed to an abstract idea is one directed to a "'disembodied concept' . .

. a basic building block of human ingenuity, untethered from any real-world application")

(citation omitted). Beyond that, the concept of an "abstract idea" has not been crisply defined.

Alice, 134 S. Ct. at 2357 (declining to "labor to delimit the precise contours of the 'abstract

ideas' category"); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1331 (Fed. Cir. 2015)

(recognizing that application of the abstract idea concept can be difficult, "a problem inherent in

the search for a definition of an 'abstract idea' that is not itself abstract").

In *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015), in order

to ascertain the basic character of the claimed subject matter at step one, the Federal Circuit

examined the specification of the patent at issue. In doing so, it cited to what the patentee had

described as "the innovation over the prior art" and "the essential, 'most important aspect'" of

the patent. *Internet Patents*, 790 F.3d at 1348;[6] *see also Execware, LLC*, 2015 WL 5734434, at

*4 (explaining at step one of *Alice* that "the 'character as a whole' [of the relevant claim] is clear

from reading the specification"). In attempting to pinpoint a claim's "character as a whole" at

step one, courts should be conscious to "avoid overgeneralizing, [and yet should also be]

cautious of hypersensitivity to technical language"—the inquiry "is one of discerning the heart of

the patented invention/true nature of the claim." *Intellectual Ventures I LLC v. Erie Indem. Co.*,

— F. Supp. 3d — , Civil Action Nos. 1:14-cv-00220, 2:14-CV-01130, 2:14-CV-01131, 2015

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[6] The Court notes that the *Internet Patents* decision issued in June 2015, at the very end of the period for briefing on the Motion, but prior to the date for oral argument on the Motion.

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WL 5686643, at *13 (W.D. Pa. Sept. 25, 2015) (citing cases); *see also Alice*, 134 S. Ct. at 2354;

SimpleAir, Inc. v. Google Inc., — F. Supp. 3d — , Case No. 2:14-cv-00011-JRG, 2015 WL

5675281, at *4 (E.D. Tex. Sept. 25, 2015) (explaining that the inquiry at step one of the *Alice* test

"is not whether the Court is able [to] reach into a patent and extract an abstract idea from which

to determine patent-eligibility . . . . [i]nstead the Court is directed to examine the [asserted

patent] and to determine whether [it is] directed to an abstract idea").

Here, Defendants contend that the claims of the '601 patent "attempt to monopolize an

abstract idea[,]" which they articulate as "keeping track of prior communications during a

conversation between computers." (D.I. 19 at 14-15; D.I. 25 at 8; Tr. at 90-91) Plaintiff

responds that this "over simplification glosses over important differences between the claimed

inventions and alternative mechanisms," and that the patent is eligible under step one of *Alice*

because it "is directed to a discrete solution to [a] computer-specific problem[.]" (D.I. 23 at 14;

see also Tr. at 109-10) For a number of reasons, the Court agrees with Plaintiff that Defendants'

articulation does not capture the true character of the '601 patent's invention.

An initial problem with Defendants' approach is that their primary focus here was not on

the words of the patent; instead, Defendants focused largely on allegations in Plaintiff's

Complaint. *(See, e.g.*, D.I. 25 at 8 ("Again, . . . it is Plaintiff's Complaint . . . that is the source of

the abstract idea articulation."); *see also* D.I. 19 at 15) Worse, Defendants misread those

allegations in a manner that leads to an overly broad assertion as to what is the abstract idea at

the heart of the patent's claims. Specifically, Defendants claim that Paragraph 20 of Plaintiff's

Complaint "describ[es] the invention as 'allow[ing] clients and servers to keep track of prior

communications during a conversation[.]'" (D.I. 25 at 8 n.17; *see also* D.I. 19 at 15) But the

Complaint clearly does not use this phraseology to describe the basic character of the invention in the '601 patent. Rather, Plaintiff introduces the field of the invention by explaining that, as a general matter, "[s]tate information allows clients and servers to keep track of prior communications during a conversation." (D.I. 1 at ¶ 20) Importantly, though, Plaintiff's Complaint goes on to describe the actual invention here by stating that it is directed to "*a better technique of preserving state information* in Internet communications"—i.e., to "novel methods of *recursively embedding state information* into communications between clients and servers." (*Id.* at ¶¶ 20-21 (emphasis added); *see also* Tr. at 110 (Plaintiff's counsel explaining that "you can't look at [claim 1 of the '601 patent] and say this claim is directed to just preserving state information because the meat of the claim is about how to do it. This claim is directed to recursively embedding state information in all continuations. . . . The rest of the claim isn't the invention. The invention is the recursively embedding.'"))

That claim 1 is not directed to the alleged abstract idea put forward by Defendants is confirmed by looking at the '601 patent's specification. For example, the patent's Abstract explains that what is disclosed is:

> A method and system for preserving state in computers
> communicating over networks . . . using stateless protocols . . . .
> State is preserved in a conversation . . . by performing the service
> and identifying all continuations (hyperlinks) in an output from the
> service; *recursively embedding the state information in all
> identified continuations in the output sent to the client.*

('601 patent, Abstract (emphasis added)) The specification goes on to provide great detail about certain then-current methods for preserving state (and their drawbacks), (*id.*, cols. 7:49-9:37), before again noting the inventors' claimed solution: "the embedding of state information" in communications between computers using stateless protocols, (*id.*, col. 10:4-5). Time and again,

when referring to the "present invention," the specification describes it as "the present invention for embedding state information[.]" (*Id.*, col. 10:38, 42-43, 47; *see also id.*, col. 16:1-4)[7] Indeed, many of the patent's figures—and *all* of the figures that do not depict prior art mechanisms for preserving state—work to illustrate the "recursively embedding" concept claimed by the patent. (*Id.*, FIGS. 4-9c) The "innovation over the prior art" described in the patent's specification, then, is not simply "keeping track of prior communications during a conversation between computers." Instead, it is to a new *way* of accomplishing that—an assertedly better method than existed in the prior art.

Unsurprisingly, the "basic character" of the claim can not only be ascertained by reading the specification—it can be found in the text of claim 1 itself. This is seen in step 4's requirement of "recursively embedding the state information in all identified continuations" and in step 5's requirement that as to subsequent communications between the server and client, state information is preserved and provided in just this way. (*Id.*, col. 18:18-23) In describing their view as to these portions of claim 1, Defendants suggest that the claim "merely deconstructs [the] task [of keeping track of the items in a current purchase] into its constituent and inherent steps." (D.I. 19 at 16) Yet that assertion simply ignores the elephant in the room—the claim's "recursively embedding"-related limitations. The "recursively embedding" concept is clearly not

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7   During oral argument, Defendants asserted that the character as a whole of the '601 patent is identical to that of the patent at issue in the *Internet Patents* decision: "preserving state information." (Tr. at 92; *see also id.* at 14) The *Internet Patents* decision is inapposite, however. In that case, the patent at issue described "'maintaining the state'" as the "the innovation over the prior art" and the "'most important aspect'" of the invention. *Internet Patents*, 790 F.3d at 1348. Here, in contrast, the '601 patent does not describe the invention as amounting to the general concept of preserving or maintaining state information (in some undefined or non-specific manner). Instead, it describes the invention as *a particular mechanism* for the preservation of state. (Tr. at 117)

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an "inherent" step for keeping track of state, as confirmed by the patent's detailed descriptions of the various prior art methods used to accomplish this task.

In arguing that the claim fails step one's test, Defendants placed significant stock in their assertion that the claim's steps can be easily implemented in a "non-computerized 'brick and mortar'" context: that of a customer's placement of a telephonic order with a merchant. (*Id.* at 17-18; D.I. 25 at 9; Tr. at 95); *see also Symantec Corp.*, 100 F. Supp. 3d at 383 ("[One] helpful way of assessing whether the claims of [a] patent are directed to an abstract idea is to consider if all of the steps of the claim could be performed by human beings in a non-computerized 'brick-and-mortar' context."). Defendants' analogy (as revised in their reply brief) is depicted in the table below[8]:

Step of '601 Claim 1	Corresponding Routine Step Performed to Process Customer Order
the client **initiating the conversation with the server** using the **stateless protocol;**	A customer calls a merchant's place of business **[initiating a conversation with a server]** using the telephone [a **stateless protocol]**.
detecting when the **request for a service requires preservation of the state information;**	The customer makes a request to purchase several goods **[request for a service]** and the merchant understands **[detects]** that the request requires saving information from the client **[preservation of state information].**
performing said service and **identifying all continuations in an output** from said service, in response to said step of detecting;	The merchant initiates an order for the first item **[performing said service]** and asks the client if he wants any additional items, if that completes his order, or for shipping information **[identifying all continuations in an output].**

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[8]   The text included within this table is drawn verbatim from Defendants' briefing.

recursively embedding the state information in all identified continuations; and	Each time the customer orders an additional item, asks to complete the order, or specifies shipping details [identified continuations], the merchant repeats all the information back to the customer each time [recursively embedding the state information].
communicating the output to the client, in response to said step of embedding; wherein the state information is preserved and provided to all services for the duration of the conversation.	The merchant communicates the details of the order to the customer [communicating the output] and has the information in writing available to use in all other requests to purchase items and for the duration of the call [preserved and provided to all services for the duration of the conversation].

(D.I. 19 at 17-18 (emphasis in original); D.I. 25 at 9; *see also* Tr. at 95)

The role of the brick and mortar analogy in the Section 101 inquiry, as even Defendants

acknowledge, is to illustrate that the invention at issue "simply take[s] a well-known and widely

applied business practice and appl[ies] it" using generic computers and/or the Internet. *DDR*

Holdings, 773 F.3d at 1264 (Mayer, J., dissenting); (*see also* D.I. 19 at 10-11 ("Where a claim's

limitations simply lay out an interaction that can be *and routinely is* performed by humans, this

demonstrates that the claim is directed to an abstract idea and not rooted in computer

technology.") (emphasis added); Tr. at 72 (Plaintiff's counsel explaining that "the idea of a brick-

and-mortar analogy is supposed to be . . . looking at what humans were already doing. They

were going to the supermarket. They were buying low and selling high. They were advertising

in the newspaper. And those steps are just being done now on the Internet")). In other words, if

the heart of a patent claim has a pre-computer or pre-Internet real-world analog, that might help

to crystallize the abstractness of a claim that in some way implicates the use of computer

technology. That is, it may help to demonstrate that such technology simply amounts to an

insignificant "add" to the claim—one meant, for example, only to allow the abstract idea to be

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implemented more quickly via a different (i.e., computerized) medium. *See, e.g., Parus Holdings, Inc. v. Sallie Mae Bank*, — F. Supp. 3d — , Civ. No. 14-1427-SLR, Civ. No. 14-1428-SLR, Civ. No. 14-1429-SLR, 2015 WL 5886179, at *3-4, *9 (D. Del. Oct. 8, 2015) (finding that the claim was directed to an abstract idea where the defendant was able to point to "pre-internet analogs" to the patent claims, suggesting that the claims were drawn to methods of organizing human activity, not to a solution to problems arising in the realm of computer technology).

After considering Defendants' proffered brick and mortar scenario, the Court finds it to be inapplicable and thus unpersuasive. This is so for at least two reasons.

First, as Plaintiff notes, a telephone conversation between two individuals is not a "stateless protocol"—at least according to the proposed construction for that term put forward by Plaintiff. (D.I. 23, ex. K (Plaintiff's proposed construction of "stateless protocol" as "a protocol where every request from a client to a server is treated independently of previous connections")) Instead, the customer and the merchant taking part in this phone call can both use their memory to recall information that was communicated earlier in the conversation—something that is simply not an option in computer communications that utilize stateless protocols (such as HTTP). (D.I. 23 at 15; Plaintiff's Presentation, Slide 52) And so the two scenarios are not really "analogs" at all: the claimed scenario (a computer-based conversation involving a stateless protocol) lacks something important (the ability to retain the "state" of the conversation) that the brick-and-mortar scenario inherently includes (the ability of the party on the receiving end of the communication to recall the "state" of the conversation). Put differently, the very core of the problem that claim 1 is attempting to address—how to retain state in computer-based communications that would not otherwise be able do so—is not necessarily even a problem at all

in Defendants' proposed brick and mortar scenario.

Second, as a practical matter, it would be hard to describe Defendants' scenario as involving the application of a "well-known and widely applied business practice" to the computer realm. It is obviously possible, of course, for a merchant to repeat back all of the information a customer has previously shared with him, each time the customer seeks to order an additional item from the merchant. But it is hard to argue that this is the way that humans typically communicate in the real world. If it were, conversations lasting beyond a short period of time would become unworkable, and merchants would have quite a few annoyed customers on their hands. (Tr. at 112-15)

In sum, the heart of the invention is more particular than simply "keeping track of communications" amongst computers—it is the specific concept of recursively embedding state in continuations, in order to keep track of that content. By oversimplifying (and thus misidentifying) the basic character of claim 1 of the '601 patent, Defendants have failed to meet their burden of demonstrating that the claim is directed to an abstract idea. *Cf. Symantec Corp.*, 100 F. Supp. 3d at 402-03 (finding the defendants' brick and mortar hypotheticals to be "unpersuasive" and concluding that "[t]he concept of detecting a computer virus in installed data (and doing so in a telephone network) does not make sense outside of a computer context" and that the defendants failed to prove the claim at issue was directed to an abstract idea).

From here, as a procedural matter, the Court could either: (1) recommend denial of Defendants' Motion without prejudice, on the grounds that the Motion is premature with respect to this issue; or (2) conclude, if warranted, that the claim could not be drawn to an abstract idea as a matter of law (and is thus patent-eligible under Section 101). While Plaintiff asserted in its

opposition brief that construction of the claim terms of the '601 patent is essential to a full understanding of the basic character of the claimed subject matter, (D.I. 23 at 19 & ex. K; *see also* Tr. at 110 (Plaintiff's counsel explaining that its proposed constructions for this patent make even more clear that the heart of the claim is the "recursively embedding" concept)), during oral argument, Plaintiff's counsel also suggested that "the [M]otion can be decided on the merits against the [D]efendants quite easily if we focus on the claims[,]" (Tr. at 38).

Here, taking the first path seems more prudent. The Court did explicitly rely above on Plaintiff's proposed construction for one term ("stateless protocol") in assessing the question of patent eligibility. Moreover, in its analysis above, the Court has at least implicitly adopted Plaintiff's proposed construction for the term "recursively embedding the state information in all identified continuations[.]" (D.I. 23, ex. K (Plaintiff proposing that the term means "modifying all identified continuations, *e.g.* hyperlinks, to include state information, *e.g.* user-ID and session-ID, during a conversation")) These constructions may end up being disputed, and Plaintiff's proposals might not ultimately be adopted by the District Court; if so, it is possible that this could affect this Court's view as to the strength of Defendants' arguments. Additionally, Defendants have not assessed whether the "basic character" of the claim as the Court has now articulated it could somehow be framed as an abstract idea. For all of these reasons, the Court will recommend that Defendants' Motion be denied without prejudice with respect to the '601 patent.

3. *Alice*'s step two

Although it need not do so in light of its conclusion as to step one, for the sake of completeness, the Court will next proceed to assess the patent's eligibility under *Alice*'s step two.

Claims of a patent drawn to an abstract idea may still be patent eligible if they contain an

"inventive concept" sufficient to "ensure that the patent in practice amounts to significantly more" than a patent upon the ineligible concept itself. *Alice*, 134 S. Ct. at 2355 (citation omitted). There is no such "inventive concept" if a claim only recites an abstract idea implemented using "generic" technology to "perform well-understood, routine, and conventional activities commonly used in [the] industry." *Content Extraction*, 776 F.3d at 1348. Neither "limiting the use of an abstract idea 'to a particular technological environment[,]'" nor simply stating an abstract idea and adding the words "apply it[,]" will transform an abstract idea into a patent-eligible invention. *Alice*, 134 S. Ct. at 2358 (citations omitted). Pursuant to these principles, a software patent can be patent eligible under Section 101 when its claims "describe a problem and solution rooted in computer technology, and the solution [is] (1) specific enough to preclude the risk of preemption; and (2) innovative enough to 'override the routine and conventional' use of the computer." *Intellectual Ventures I, LLC v. Canon Inc.*, — F. Supp. 3d —, Civ. No. 13-473-SLR, 2015 WL 6872446, at *21 (D. Del. Nov. 9, 2015) (quoting *DDR Holdings*, 773 F.3d at 1258-59).

Even were the Court to assume *arguendo* that Defendants are correct about the outcome at *Alice*'s first step (meaning that claim 1 would be found to be directed to the abstract idea of "keeping track of prior communications during a conversation between computers"), Plaintiff's argument that claim 1 contains an inventive concept would be sufficient at this stage to withstand Defendants' Motion. As the Court will explain below, it is plausible that the "recursively embedding" limitation amounts to a concrete application of the asserted abstract idea. A more robust record would also be needed on the subjects of preemption and innovation, which could impact the subject matter eligibility of the claim.

a. Claim 1 discloses a specific solution

In their initial argument that claim 1 of the '601 patent was devoid of an inventive

concept, Defendants again appeared to completely overlook Claim 1's "recursively embedding"

limitation. Their opening brief asserted that the claim "seeks to monopolize every concrete

application of keeping track of prior communications during a conversation between

computers[.]" (D.I. 19 at 19; *see also id.* at 18 (contending that claim 1 "amounts to 'nothing

significantly more than an instruction to apply the abstract idea' of keeping track of prior

communications during a conversation between computers by 'using some unspecified, generic'

computer hardware") (citations omitted)) But as Plaintiff accurately retorted, the patent's

specification actually details several examples of prior art mechanisms to preserve state

information such as state-aware protocols, cookies, and HTML forms. (D.I. 23 at 17-18) It then

goes on to disclose a purportedly novel, additional way of accomplishing this goal: the concept

of recursively embedding state information in continuations. (*See, e.g.*, '601 patent, cols. 9:57-

10:3)[9]

This disclosure sets the '601 patent apart from other patents that have flunked step two of

Alice at the pleading stage. A helpful case to assess in this regard is the decision in *Internet*

Patents, which involved claims that failed both prongs of *Alice*. There, the Federal Circuit

concluded at step one that the invention was directed to the abstract idea of retaining information

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[9]   Here again, the Court is taking into account Plaintiff's proposed construction for "recursively embedding the state information in all identified continuations": "modifying all identified continuations, *e.g.* hyperlinks, to include state information, *e.g.* user-ID and session-ID, during a conversation[.]" (D.I. 23, ex. K (citing '601 patent, cols. 10:30-55, 13:5-7, 13:15-18, 16:1-4)) To the extent that this proposed construction is not ultimately adopted by the District Court at the time of claim construction, that might affect the ultimate conclusion as to any renewed motion brought on Section 101 grounds.

in the navigation of online forms (i.e., of maintaining state). *Internet Patents*, 790 F.3d at 1348.

At step two, the Court found no inventive concept in the claims because they "contain[ed] no

restriction on how the result is accomplished[;] [t]he mechanism for maintaining the state is not

described, although this is stated to be the essential innovation." *Id.* The patentee's proposed

construction of "maintaining state" did not help matters, as it described "the effect or result

dissociated from any method by which maintaining the state is accomplished upon the activation

of an icon." *Id.* (emphasis added). Thus, the Federal Circuit concluded that the claims were

patent ineligible. *Id.* at 1348-49. Here, in stark contrast, the '601 patent *does* recite a particular

mechanism for preserving state. (*See* Tr. at 117 (Plaintiff's counsel distinguishing the *Internet*

Patents decision))

By the time of oral argument, Defendants' step two argument shifted a bit. Defendants'

counsel acknowledged that the patent's disclosure of the recursively embedding concept provides

"another way to [preserve state information]." (*Id.* at 125) But Defendants contended that claim

1 fails at step two because "it doesn't really tell you *how*" to recursively embed and, therefore,

does not amount to something "significantly more than [an] abstract idea." (*Id.* at 122-25

(emphasis added); *see also id.* at 93-94)

Defendants' argument raises the question of how much "how" must exist in a patent's

claim, in order to elevate the claim from the realm of abstraction to that of patent eligibility. In

DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (Fed. Cir. 2014), the Federal Circuit

found the patent at issue to satisfy Section 101 where the claims did not simply recite the

performance of a known business practice applied to the Internet, but instead provided a solution

"necessarily rooted in computer technology in order to overcome a problem specifically arising

in the realm of computer networks." *DDR Holdings*, 773 F.3d at 1257. The patent disclosed a

system for generating a composite web page when a user clicked on a third-party merchant's

advertisement hyperlink that combined the visual elements of the "host" website with the content

of the third-party merchant. *Id.* at 1248-49. In deeming the patent satisfactory under Section

101, the Court cautioned that "not all claims purporting to address Internet-centric challenges"

will be eligible for patent. *Id.* at 1258. The Court explained that the patent before it was eligible,

however, because "the claims at issue here *specify how interactions with the Internet are*

manipulated to yield a desired result—a result that overrides the routine and conventional

sequence of events ordinarily triggered by the click of a hyperlink." *Id.* (emphasis added). More

specifically, the claims set out the sequence by which the claimed system directed users to a

"hybrid" web page that maintained the "look and feel" of the host website, instead of sending the

user to a completely different third-party site. *Id.* at 1249, 1259. By claiming only a "specific

way" of performing the task, the claims at issue did "not attempt to preempt every application of

the idea . . . of making two web pages look the same[.]" *Id.* at 1259.

When assessing whether claims contain an inventive concept, courts have emphasized

this finding of the *DDR Holdings* Court. *See, e.g., Source Search Techs., LLC v. Kayak Software*

Corp., 111 F. Supp. 3d 603, 617 (D.N.J. 2015) ("*DDR Holdings* tells us that when a patent

holder seeking to establish [Section] 101 eligibility for an otherwise abstract idea points to a

particular element of a patent's claims as solving a computer-centric problem, the claims must

specify how that solution works. *That specificity removes the claims from the abstract realm.*")

(emphasis in original). An inventive concept will not be found where (unlike the claims at issue

in *DDR Holdings*) the claim fails to disclose *how* an interaction with the Internet (or among

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computer systems) is manipulated.[10] On the other hand, where claims recite specific,

unconventional methods directed to solving the problem identified by the patent, district courts

have tended to find that such patents pass muster under *Alice*'s second step.[11]

Here, claim 1 clearly discloses, at minimum, one level of "how," in reciting a specific

solution to the patent's identified problem. That is, claim 1 has an answer to the question "How

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[10] *See, e.g.*, *Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, — F. App'x —, No. 2015-1411, 2015 WL 9461707, at *4-5 (Fed. Cir. Dec. 28, 2015) (distinguishing the asserted claims from those in *DDR Holdings* where the claims "do not address a problem arising in the realm of computer networks" but instead were broadly drafted to cover testing a vehicle operator for impairments and where the patent failed to explain *how* the claimed "undefined" and "unspecified" "expert system" improved upon the prior art); *TriPlay, Inc.*, 2015 WL 1927696, at *15 (holding that the claim at issue did not contain an inventive concept where it "does not purport to limit itself to a specific *way* of converting a message from one layout to another—it simply covers the act of 'converting' messages") (emphasis in original); *East Coast Sheet Metal Fabricating Corp. v. Autodesk, Inc.*, Civil No. 12-cv-517-LM, 2015 WL 226084, at *9 (D.N.H. Jan. 15, 2015) (finding a patent claim to be patent ineligible under step two where it "describe[s] the inventions' computer programming as operating in the most generic of terms" and did not set out "how the invention does what it does").

[11] *See, e.g.*, *Motio, Inc. v. BSP Software LLC*, — F. Supp. 3d —, CASE NO. 4:12-CV-647, 2016 WL 26043, at *4 (E.D. Tex. Jan. 4, 2016) (concluding that claims drawn to the abstract idea of maintaining versions of electronic documents contained an inventive concept that meaningfully limited the abstract idea, as they "describe a non-conventional method [of doing so], by providing an 'automated agent' distinct from a business intelligence system to provide a type of version control"); *01 Communique Lab., Inc. v. Citrix Sys., Inc.*, — F. Supp. 3d —, CASE NO. 1:06-cv-253, 2015 WL 9268913, at *12-13 (N.D. Ohio Dec. 21, 2015) (finding that the asserted claim constituted an inventive concept where it did "not simply say [] use the Internet to implement remote access between two computers" but instead "provide[s] a specific solution to remote access problems that is necessarily rooted in computer technology"); *Kenexa Brassring, Inc. v. HireAbility.com, LLC*, Civil Action No. 12-10943-FDS, 2015 WL 1943826, at *7 (D. Mass. Apr. 28, 2015) (concluding that claims were "not manifestly invalid for lack of inventiveness" where they did not simply recite the use of digital data, but also recited a specific method of digital extraction that plaintiff contended was not conventional); *Messaging Gateway Solutions, LLC v. Amdocs, Inc.*, Civil Action No. 14-732-RGA, 2015 WL 1744343, at *4-5 (D. Del. Apr. 15, 2015) (finding that a claim directed to the translation of mobile phone language into Internet language contained an inventive concept where "[i]t specifies how an interaction between a mobile phone and a computer is manipulated in order to achieve a desired result which overrides conventional practice").

will the patentee preserve state in conversations between computers communicating via stateless

protocols?": by recursively embedding the state information in continuations, such as hyperlinks.

It is true that the claim does not explicitly provide additional layers of "how." It does not further

include, for example, a set of rules dictating how exactly the server must accomplish the

"recursively embedding" step.[12] But at this stage, the claim's clear recital of a specific way to

preserve state is a factor suggesting that it would be inappropriate to grant Defendants' Motion.

Cf. Messaging Gateway Solutions, 2015 WL 1744343, at *3, *5-6 (finding that a method claim

directed to the translation of an SMS text message in a way that allows the computer to receive

and understand the message contained an inventive concept, where the translation limitation

recited "the computer system inserting at least a message body of the text message into an

Internet Protocol (IP) message" but did not further specify how that translation from text message

to IP message is to occur); *Intellectual Ventures I, LLC v. Motorola Mobility LLC*, 81 F. Supp.

3d 356, 369 (D. Del. 2015) (finding, in resolving a post-trial motion seeking summary judgment,

that the claims of an asserted patent relating to the allocation of wireless bandwidth based on

packet contents were directed to patent-eligible subject matter, explaining at step two that

"[e]ven though claim 1 itself does not provide a detailed explanation of how packet headers are

used to allocate the bandwidth, the inventive concept lies in the limitation of using packet

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[12] Some of the patent's other claims clearly do more work in this regard, as they further describe specific implementation details. (D.I. 23 at 18 (quoting '601 patent, cols. 18:53-57, 19:10-18)) For example, claim 13 claims: "The method of claim **8**, wherein said step of embedding further comprises the step of: modifying an identified continuation which is an invocation to a CGI program to invoke a CGI converter program with the identified continuation, an argument counter which indicates a number of arguments associated with the CGI program, and the state information passed as arguments, wherein said step of embedding is performed by the converter program." (*Id.*, col. 19:10-18)

headers to allocate bandwidth, not in the details of implementation").

b. Innovation and Preemption

The Court further finds that issues relating to innovation and preemption—additional important considerations in the step two inquiry—would need to be further fleshed out prior to a final decision on the eligibility of claim 1.

In order to amount to an inventive concept, a claim's limitations must "recite an invention that is not merely the routine or conventional use of" computer technology and/or the Internet. *DDR Holdings*, 773 F.3d at 1259. Plaintiff asserts that the recursively embedding limitation "[i]s a total change [from] the way the Internet hyperlinks worked before this patent." (Tr. at 108; *see also id.* at 116-17; D.I. 1 at ¶ 21 ("The inventor [of the '601 patent] . . . . developed novel methods of recursively embedding state information into communications between clients and servers.")) For their part, even Defendants acknowledge that it is "arguabl[e]" that the "rescursively embedding" limitation in claim 1 is something other than a "conventional step[]." (Tr. at 92) Further factual development—as to just how unconventional or innovative this solution was at the time—might impact the Section 101 inquiry.

So too would factual development as to the question of preemption. Defendants assert that "[p]rofound preemption concerns are inherent because Claim 1 . . . fails to impose any significant limitations on the implementation of the abstract idea of keeping track of a prior communication in a conversation[,]" and "[t]he few remaining options in the field offered by Plaintiff (using state-aware protocols, i.e., not HTTP, or using small files containing state information stored at the client computer) demonstrate the over-breadth of the claim." (D.I. 25 at 11) Plaintiff, to the contrary, argues that the patent "does not monopolize the industry in any

way"—pointing to the additional methods the patent discusses for preserving state information. (Tr. at 119)

The Supreme Court has identified "the concern that drives th[e] exclusionary principle [set out in Section 101] as one of pre-emption." *Alice*, 134 S. Ct. at 2354. The inquiry with respect to preemption is whether the patent "would risk disproportionately tying up the use of the underlying ideas[.]" *Id.* (internal quotation marks and citation omitted). On this record, it is still an open question as to whether: (1) the additional specific methods identified in the patent were the *only* remaining options in the field for preserving state information in conversations between a client and a server; and (2) if they were not (or even if they were), to what extent could claim 1's content be said to tie up too much of the use of the underlying asserted abstract idea. *See, e.g., Cronos Techs.*, 2015 WL 5234040, at *3 (explaining that if there are any set of facts that could be proven relating to preemption that could render a claim patent eligible, then a court should deny a Rule 12 motion brought on Section 101 grounds); *Mirror Worlds Techs., LLC v. Apple Inc.*, CAUSE NO. 6:13-CV-419 (LEAD CASE), 2015 WL 6750306, at *10 (E.D. Tex. July 7, 2015) (denying defendants' Section 101 motions for judgment on the pleadings without prejudice because, *inter alia*, "the Court cannot conclude at the pleading stage that claim 13 uses conventional and generic computer functions to disproportionately preempt the abstract idea"). The answers to those disputed questions could inform whether a Section 101 motion is ultimately well-taken, all of which further militates against grant of Defendants' Motion. (*Cf.* Tr. at 104 (Defendants' counsel acknowledging that there "could be" disputed fact questions regarding the number of additional solutions that exist for preserving state information in communications between computers, specifically as to the significance or scope of any such alternative solutions))

4.   Conclusion

In sum, under the current procedural posture of the case, Defendants have failed to meet their burden of demonstrating that claim 1 of the '601 patent is patent-ineligible. The Court thus recommends that Defendants' Motion be denied without prejudice as to this patent.

B.   '346 patent

1.   The Invention

The '346 patent is entitled "Method and System for a Runtime User Account Creation Operation Within a Single-Sign-On Process in a Federated Computing Environment[,]" and was issued on December 8, 2009. It describes an invention meant to improve upon then-current single-sign-on ("SSO") technology. ('346 patent, col. 2:44-48)

The patent's specification explains that online service providers, such as website operators, usually utilize "sign-on" operations to control a user's ability to access protected resources, including confidential webpages. (*Id.*, cols. 1:55-58, 6:26-30) To sign on, a user provides authentication credentials, such as a username and password. (*Id.*, cols. 6:26-35, 9:63-64) The server then verifies the credentials to authenticate the user's identity, by, for example, retrieving the user's previously submitted registration information and matching the authentication credentials with the user's stored information. (*Id.*, col. 6:36-41) If the authentication is successful, the service provider grants access to the user, and the server establishes a session identifier for the user that accompanies any subsequent request messages from the client during the session. (*Id.*, col. 6:41-45) The patent's specification identifies the need to provide Internet users with secure access to protected resources in a user-friendly manner, such that once they have been authenticated by a computer system, they can then switch

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among various applications without regard to authentication barriers that protect each particular system supporting those applications. (*Id.*, col. 1:14-52)

In order to address the burden of repetitive sign-on operations, SSO processes were developed that allow a user to complete only one authentication process during a particular user session. (*Id.*, col. 1:53-61) The drawback with SSO technology at the time of the invention, however, was that users were required to have preexisting accounts with the service provider. (*Id.*, col. 2:19-42) The invention purports to disclose how SSO technology can be used in a manner that overcomes this problem.

The invention at issue is described as being supported within a "federated computing environment." (*Id.*, col. 10:24-25, 45-46) The specification explains that "a federation is a set of distinct entities . . . that cooperate to provide a [SSO], ease-of-use experience to a user; a federated environment differs from a typical [SSO] environment in that two enterprises need not have a direct, pre-established, relationship[.]" (*Id.*, col. 10:62-67) Accordingly, within such an environment, "[u]sers are not required to register at each business of interest, and users are not constantly required to identify and authenticate themselves." (*Id.*, col. 10:55-58) An entity within a federated computing environment called an "identity provider" provides identity information as a service to other entities within the federation. (*Id.*, col. 12:37-51) The patented invention triggers interactions between a service provider and an identity provider to automatically authenticate the user—even though that user does not have a preexisting account with the service provider that links the user to an account at the identity provider. (*Id.*, col. 33:9-43) In such a scenario, the service provider is able to dynamically perform operations to allow the SSO operation to proceed. (*Id.*)

The patent contains three independent claims (claims 1, 15 and 18). The asserted claims

are independent claim 1 and dependent claims 2, 3, 5, 8 and 10-13, (Defendants' Motion

Presentation, Slide 21), all of which are dependent on claim 1, ('346 patent, cols. 44-45). Claim

1 claims:

> **1.** A method for managing user authentication within a distributed data processing system, wherein a first system and a second system interact within a federated computing environment and support single-sign-on operations in order to provide access to protected resources, at least one of the first system and the second system comprising a processor, the method comprising:
>
>> [(1)] triggering a single-sign-on operation on behalf of the user in order to obtain access to a protected resource that is hosted by the second system, wherein the second system requires a user account for the user to complete the single-sign-on operation prior to providing access to the protected resource;
>>
>> [(2)] receiving from the first system at the second system an identifier associated with the user; and
>>
>> [(3)] creating a user account for the user at the second system based at least in part on the received identifier associated with the user after triggering the single-sign-on operation but before generating at the second system a response for accessing the protected resource, wherein the created user account supports single-sign-on operations between the first system and the second system on behalf of the user.

(*Id.*, col. 44:38-61)

2. *Alice*'s step one

Defendants argue that the '346 patent is directed to the abstract idea of "using access

rights to a first system to obtain access rights to a second system." (D.I. 19 at 6-7, *see also id.* at

9; D.I. 25 at 2; Tr. at 19-20) Plaintiff responds that this articulation ignores the invention's "key

components," entirely "leav[ing] out . . . [the concepts of] authorization and automatic account creation." (Tr. at 62; *see also* D.I. 23 at 7)

The Court finds that Defendants' articulation is overbroad and thus fails to accurately capture the character of the claimed invention. Indeed, again here Defendants fail to focus on the language of representative claim 1 when assessing patent eligibility. Instead, in an attempt to support the assertion that the claim is drawn to an abstract idea, Defendants cite to: (1) an allegation in Plaintiff's Complaint; and (2) the very first sentence of the patent's Abstract. (D.I. 19 at 7; D.I. 25 at 2 & n.3) Both citations are problematic.

With regard to the former, Defendants assert that in the Complaint, Plaintiff pled that the inventors' goal was to permit a user "'[t]o access a protected resource at a service provider on the Internet . . . [while] requiring only one authorization operation during a particular user session.'" (D.I. 19 at 7 (quoting D.I. 1 at ¶ 22)) But this is not entirely accurate. Rather, in the relevant paragraph of the Complaint, the above-quoted language was recited simply to set the stage for the invention, and to explain that *prior art* SSO technology allowed a user access while "requiring only one authorization operation during a particular user session." (D.I. 1 at ¶ 22) That same paragraph goes on to explain that the patent sought to *improve* upon the prior art technology's use of SSO technology, by eliminating the requirement in the prior art that "the user already ha[d] an account with the service provider [before the user could] use [SSO] technology." (*Id.*)

And as for the latter citation, Defendants note that the first sentence of the '346 patent's Abstract states that the invention "support[s] computing systems of different enterprises that interact within a 'federated computing environment.'" (D.I. 19 at 7 (quoting '346 patent, Abstract)) Yet it is the Abstract's next sentence that is clearly meant to describe the core of the

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invention at issue. That sentence reads: "Federated single-sign-on operations can be initiated at the computing systems of federation partners on behalf of a user *even though the user has not established a user account at a federation partner prior to the initiation of the single-sign-on operation*." ('346 patent, Abstract (emphasis added); *see also id.*, col. 2:55-60)

With this context in mind, it becomes clear that the true heart of the invention is the utilization of SSO technology to automatically create an account at the service provider level on behalf of users who did not previously have such accounts, all in order to allow the user to access protected resources at the service provider.[13] (*See* D.I. 1 at ¶ 23; *see also* Tr. at 62, 66 (Plaintiff's counsel explaining that "[t]he patent is trying to let users surf the Internet and not have to have accounts at each of these places, not have to put in user names and passwords at each of these places and just get access to protected resources because they have a relationship with an entity called the identity provider, and the identity provider is going to take care of that for them")) The specification further makes this clear when it describes the claimed subject matter as follows:

> The [SSO] operation of the present invention . . . differs from the

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[13]   Plaintiff puts forward potential constructions for key claim terms in the '346 patent, including "single-sign-on" and "federated comput[ing] environment." (D.I. 23, ex. K) These proposed constructions, if adopted, further support that the heart of the invention is much more nuanced than Defendants' sweeping articulation of "using access rights to a first system to obtain access rights to a second system." For the term "single-sign-on," for example, Plaintiff's proposed construction is "an authentication process whereby the user is *subsequently not required to perform another authentication operation during a particular user session.*" (*Id.* (emphasis added) (citing '346 patent, col. 1:53-61)) For the term "federated computer environment," Plaintiff's potential construction is "a set of distinct entities, such as enterprises, organizations, institutions, etc. that cooperate to provide a single-sign-on, ease-of-use experience to a user by authenticating users, accepting authentication assertions, e.g., authentication tokens, that are presented by other entities, and providing some form of translation of the identity of the vouched-for user into one that is understood within the local entity, wherein the enterprises need not have a direct, pre-established, relationship defining how and what information to transfer about a user." (*Id.* (citing '346 patent, cols. 10:62-11:7))

[SSO] solutions of the prior art . . . because the service provider
recognizes during the [SSO] operation of the present invention that
the service provider does not have a user account for the user that
links the user to an account at an identity provider in order to
support [SSO] operations, *yet with the present invention the service
provider is able to dynamically perform operations to allow the
[SSO] operation to proceed.*

('346 patent, col. 33:9-19 (emphasis added)) The patent clearly reflects that Defendants' step one

assessment "oversimplifies the subject matter of the [] patent . . . in an attempt to characterize the

invention as an abstract idea." *01 Communique Lab., Inc. v. Citrix Sys., Inc.*, — F. Supp. 3d —,

CASE NO. 1:06-cv-253, 2015 WL 9268913, at *9 (N.D. Ohio Dec. 21, 2015) (finding the same

where defendants overlooked the purpose of the invention as reflected in the patent's

specification).[14]

During oral argument, Defendants put forward a "brick and mortar" analogy involving the

concept of reciprocal golf club privileges, which was meant to be analogous to the patent's

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[14] Defendants eventually focus on the actual language of claim 1 in their *Alice* step
one analysis, asserting that the claim's steps can be described as "receiving information about a
user, characterizing the user (i.e., whether he has access rights), and communicating the result."
(D.I. 19 at 8; *see also* D.I. 25 at 4 ("Claim 1 of the '346 [p]atent discloses only collecting data,
recognizing data, and communicating results—all abstract steps.")) As Plaintiff points out,
however, Defendants' summary, *inter alia*, "entirely ignore[s]" the last claim element—the
automatic creation of a user account that supports SSO operations on behalf of the user—which,
as described above, is what the specification pinpoints as the most important aspect of the
invention. (Tr. at 62; *see also* D.I. 23 at 7) Defendants' analysis of the claim language at step
one thus further confirms that Defendants paint with too broad a brush in their articulation of the
patent's purported abstract idea. *See SimpleAir, Inc.*, 2015 WL 5675281, at *4 (finding that the
defendants did not meet their burden of showing the asserted patents were directed to an abstract
idea where their characterization of the abstract idea "ignores significant claim limitations");
Trading Techs. Int'l, Inc. v. CQG, Inc., Case No. 05-cv-4811, 2015 WL 774655, at *4 (N.D. Ill.
Feb. 24, 2015) (finding that the defendant did not meet its burden of proving that the patents
were directed to an "abstract idea" where it "ignore[d] much of the details of the [] claims,"
which were "directed to solving a problem that existed with prior art [graphical user interface
devices]").

purported abstract idea (that is, analogous to "using access rights to a first system to obtain access rights to a second system"). (Tr. at 22-23) However, this analogy only served to further underscore how Defendants missed the mark in ascertaining the basic character of the claim.

In this scenario, Defendants explain, several separately-owned golf clubs participate as part of a network that is analogous to the federated computing environment in the claims of the '346 patent. (*Id.* at 22) Typically, golf clubs that are a part of this network will allow an individual member of one club to appear at a second club and play the second club's course, based solely on the fact that the individual is authorized to play the first course. (*Id.*) For example, when Joe Smith (member of golf club no. 1) arrives at golf club no. 2 to play a round of golf, golf club no. 2 will authenticate Joe Smith by calling golf club no. 1, stating that Joe Smith is present, and requesting verification that Joe is indeed a member of golf club no. 1. (*Id.*) Golf club no. 1, in turn, will confirm that Joe Smith is indeed one of its members and will provide golf club no. 2 with Joe's member identification number. (*Id.*) Golf club no. 2 will check Joe Smith's identification, authenticate his identity, and allow him to play its course. (*Id.*)

The Court is not persuaded that such a scenario amounts to a pre-Internet analog of the claimed invention. In fact, because Joe Smith has to physically wait while golf course no. 2 goes through the steps of authenticating his identity, this proffered scenario seems more reflective of the prior art problem that the patentees were attempting to overcome. (*See* '346 patent, col. 1:20-24 ("Users generally desire the ability to change from interacting with one application to another application without regard to authentication barriers that protect each particular system supporting those applications.")) The point of inventions like that disclosed in the '346 patent (at least, as articulated by Plaintiff, in part through its proffered construction for the claim term

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"single-sign-on") is for there to be no need for a user-involved authentication process to occur at

the second resource (i.e., to remove from the equation the step of the user having to physically

authenticate himself at that second resource). (Tr. at 60) And so as Plaintiff accurately explains,

Defendants' golf club analogy reflects that the invention "never could happen in the real world

because [in the real world] you're physically present, and the second resource is always going to

check your ID to always make sure who you are." (*Id.*) The invention, however, is all "about *not*

checking your ID and about vouching for you on the Internet across [] computers[.]" (*Id.*

(emphasis added); *see also id.* at 42 ("[A]llowing a remote user to access secret resources at an

enterprise where he is not physically present. . . . doesn't happen in the real world."), 64, 66-67,

72-74, 84) Thus, Defendants' brick and mortar scenario does not mirror the steps of the claim, in

that it simply does not capture essential portions of the Internet-based authentication process

described in the claim.[15]

For all of the above reasons, the Court finds that Defendants have not met their burden of

demonstrating that the claimed invention of the '346 patent is directed to the asserted abstract

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[15]   *See DDR Holdings*, 773 F.3d at 1258 (explaining that the dissent's "'store within a store'" brick and mortar analogy did not amount to the "pre-Internet analog" to the asserted claims of the patent-in-suit, as to patent claims directed to systems and methods of generating a composite web page combining visual elements of a host website with content from a third-party merchant, in that the analogy failed to "account for the ephemeral nature" of the Internet); *see also 01 Communique Lab., Inc.*, 2015 WL 9268913, at *7-9 (finding that defendants' brick and mortar analogy of telephone operators connecting one caller to a second caller at the first caller's request did not reflect the steps of the claim, which disclosed a communication portal that does not require replication to a third-party intermediary to access data, as it failed to account for the realities of the Internet and did not capture the claim's true purpose); *Contentguard Holdings, Inc. v. Amazon.com, Inc.*, — F. Supp. 3d — , Case No. 2:13-CV-1112-JRG, Case No. 2:14-CV-61-JRG, 2015 WL 5853984, at *4-5 (E.D. Tex. Oct. 5, 2015) (finding the defendants' brick and mortar "analogy to library loans" unpersuasive, where the analogy did not match up to the steps of the claim, which involved managing digital rights using specific trusted devices and systems).

idea. The Court recommends that Defendants' Motion thus be denied with respect to this patent.

The Court also recommends that such Motion be denied without prejudice. In part, it does so because, as to this patent, Plaintiff itself has asserted that the Motion is "premature"—that claim construction of the terms of the '346 patent would be essential to a full understanding of the basic character of the claimed subject matter. (D.I. 23 at 12) And indeed, above, the Court has relied on proposed constructions put forward by Plaintiff (that may or may not later be adopted) to guide its step one analysis. Additionally, Defendants have not addressed whether what the Court has now found to be the "basic character" of claim 1 (i.e., the use of SSO technology to automatically create user accounts at a service provider, in order to provide access to a protected resource) could somehow be framed as an abstract idea, and the Court is hesitant to definitively decide that issue at this stage.

3. *Alice's* step two

Although the Court has found that the claim satisfies *Alice's* step one, for the sake of completeness, the Court will also address step two of the *Alice* test. That is, the Court will assume that Defendants are correct that their proffered abstract idea amounts to the basic character of claim 1, and will then assess whether the claim could nevertheless be said to contain an inventive concept.

Plaintiff asserts that the inventive concept contained in claim 1 is the "ordered combination between three systems to retrieve an identifier, authorize a user, and automatically creat[e] an account." (Tr. at 85; *see also* D.I. 23 at 10 (stressing the importance of the ordered combination of steps which is "crucial to modify the typical, prior art [SSO] interactions and implement the process" described in the patent)) The Court agrees that it is plausible that the

claim contains an inventive concept sufficient to withstand Defendants' Motion.

At step two, Defendants again (as with the '601 patent) primarily focus on the question of "how." That is, they assert that claim 1 fails step two because it "does not disclose any specific hardware or detail regarding *how* it eliminates the requirement that users have preexisting accounts." (D.I. 25 at 6) Therefore, according to Defendants, "[t]he claim [] reduces to an instruction to apply an abstract idea using conventional computer technology and the Internet." (*Id.* at 6-7 (emphasis in original) (internal quotation marks and citation omitted); *see also* Tr. at 19, 24-25, 27-28 (Defendants' counsel explaining that the claim does not contain an inventive concept because it does not "recite anything other than generic hardware and software *and purely functional steps that are not limited to a particular way. . . .* unlike the claims in *DDR Holdings*, there is just nothing here that provides the 'how' such that the claim would be significantly more than the abstract idea") (emphasis added), 89)

At this early stage in the case, before claim construction has shed light on key terms in claim 1, the Court cannot agree with Defendants' "lack of particularity" argument. The claim can be read to recite a specific method of providing access rights to a user "*without requiring [the user] to complete a separate application and authorization process each time*" he wishes to access a new resource—one that was purportedly unconventional at the relevant time. (Tr. at 59 (emphasis added), 74) How is the requirement that users have preexisting accounts eliminated? The claim sets out an ordered sequence for doing so, involving a first system and a second system interacting in a federated computing environment to: (1) trigger a SSO operation; (2) receive from the first system a user identifier, and (3) automatically create a user account at the second system that allows the user to access the protected resource at the second system. ('346

patent, col. 44:38-61; Tr. at 76-78) Although Defendants complain that "[t]he claim does not

specify *how*, for example, the second system 'creat[es] a user account,'" (D.I. 25 at 6), they are at

least overlooking the claim's disclosure that the account is created based "in part on the received

identifier associated with the user" at a specific time in the sequence (after the SSO has been

triggered, but before a response for accessing the protected resource at the second system is

generated). And Defendants' complaint also glosses over Plaintiff's argument that the claim

requires the account be created in conjunction with an interaction between systems in a

"federated computing environment."[16] On this record, then, it is plausible that claim 1 provides a

sufficiently specific computing solution to the problem of authentication barriers that make it

difficult for users to easily interact with various protected resources during a session. *See e.g.*,

Prism Techs., LLC v. T-Mobile USA, Inc., No. 8:12CV124, 2015 WL 6161790, at *3 (D. Neb.

Sept. 22, 2015) (concluding that claims included inventive concepts ensuring that the patents

amounted to more than just the abstract idea of restricting access to resources, where they

"modif[ied] the way the Internet functions to provide secure access over a protected computer

resource" involving the "inventive use of identity associated with the client computer" to control

such access).

Beyond reciting a specific solution, in order to amount to an inventive concept, a claim

must also "recite an invention that is not merely the routine or conventional use of the Internet."

DDR Holdings, 773 F.3d at 1259. Defendants argue that claim 1 of the '346 patent contains no

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[16]   Plaintiff's proposed claim construction for this term would require that such an
environment would enable "distinct entities [to] cooperate to provide a SSO . . . experience to a
user by . . . accepting authentication assertions . . . presented by other entities, and providing [a]
translation of the [user] identity" into one that is understood within the environment. (D.I. 23,
ex. K)

inventive concept because "[t]he claims are . . . directed to online transactions requiring 'conventional computer technology and the Internet[,]'"; in this regard, Defendants cite to portions of the specification that state that the invention may be implemented using conventional computer components. (D.I. 19 at 11; *see also* D.I. 25 at 6-7) Yet at step two of *Alice*, "[t]he Court is not asked to determine only whether the steps or limitations can be performed or implemented using standard or well-known technologies, but rather also whether 'the *function performed by the computer* at each step of the process is [p]urely conventional.'" *SimpleAir, Inc.*, 2015 WL 5675281, at *5 (quoting *Alice*, 134 S. Ct. at 2359) (emphasis added); *cf. Execware, LLC v. BJ's Wholesale Club, Inc.*, Civil Action No. 14-233-LPS, 2015 WL 4275314, at *15 (D. Del. July 15, 2015), *rejected in part on other grounds*, 2015 WL 5734434 (D. Del. Sept. 30, 2015). And here, Plaintiff asserts that the patented invention set out in claim 1 "changed the conventional approach to how to get in to protected resources on the Internet[.]" (Tr. at 56, 59; D.I. 1 at ¶ 23; D.I. 23 at 10)

There is plenty of material in the patent's specification that supports Plaintiff's assertion. While the concept of SSO technology was not a new one at the time of the invention, the specification explains that the prior art SSO solutions "require that a user have an authenticatable account at both an identity provider and a service provider as a prerequisite to a federated [SSO]." ('346 patent, col. 2:26-30) The specification describes the improvement over the prior art encompassed by the invention as the "eliminat[ion] [of] these prerequisites" because while "[i]n the prior art, the service provider cannot automatically create an active session for the user and allow access to protected resources; with the present invention, the service provider dynamically performs a runtime linked-user-account creation operation at the service provider by

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creating a linked user account based on the user identity . . . that has been provided by the identity provider to the service provider[.]" (*Id.*, cols. 31:3-4, 33:9-35) If Plaintiff is correct that the automatic creation of an account under these circumstances was not a conventional computer function for SSO technology at the time of the invention, then the disclosure of that technique could amount to a meaningful limitation that supplies an inventive concept.

A finding of patent-ineligibility on this record would also be premature with respect to preemption. Defendants assert that claim 1 "'tie[s] up too much future use'" of the abstract idea of using access rights to a first system to obtain access rights to a second system because it "imposes no significant limitations" on that abstract idea. (D.I. 25 at 7 (citation omitted); *see also* D.I. 19 at 12) In response, Plaintiff points to specific portions of the '346 patent's specification, in which the patentee itself highlights a multitude of other applications of sign-on approaches in the prior art, including: (1) the completion of a sign-on operation every time a user accesses a resource; (2) providing SSO capabilities on an enterprise-by-enterprise basis; and (3) the use of *a priori* user account creation. (D.I. 23 at 11 (citing '346 patent, cols. 1:25-37, 47-52, 2:30-35); Tr. at 78-79) Additional fact-finding could shed light on the depth and breadth of these and other relevant approaches that would bear on the preemption question.

4. Conclusion

Accordingly, at this stage of the case, Defendants have not met their burden of demonstrating that claim 1 of the '346 patent is directed to an abstract idea, or that it does not include an inventive concept. Therefore, the Court recommends that Defendants' Motion be denied without prejudice as to this patent.

C. '967 and '849 patents

1. The Invention

The '967 patent and the '849 patent (collectively, "the Filepp Patents") are related patents sharing similar specifications. The patented technology therein was conceived in the late 1980s, while IBM was developing the PRODIGY online service ("Prodigy"), a predecessor to today's Internet.[17] (D.I. 1 at ¶ 17) IBM launched Prodigy, which embodied inventions from the Filepp Patents, in the late 1980s. (*Id.* at ¶ 19) The '967 patent is entitled "Method for Presenting Applications in an Interactive Service" and was issued on August 18, 1998. The '849 patent is entitled "Method for Presenting Advertising in an Interactive Service" and was issued on July 4, 2006.

IBM's goal behind Prodigy was to provide interactive applications (such as electronic banking, travel reservations, home shopping, current events, sports and business news) to millions of simultaneous users with minimal response times. ('967 patent, col. 1:16-64; '849 patent, col. 1:16-61; D.I. 23, ex. L ('967 patent Prosecution History, November 1994 "Disclosure Statement Under 37 C.F.R. [§] 1.97") at 2, 4-5)[18] The patents' specifications explain that while interactive computer networks were in existence by the late 1980s, they utilized a "dumb terminal" approach that relied exclusively on the processing power of a central host computer that sequentially received user data process requests, executed them, and supplied responses back to the user. ('967 patent, col. 1:37-45; '849 patent, col. 1:34-42; D.I. 23, ex. L at 2) In other

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[17]   The parties briefed these patents together, (*see, e.g.*, D.I. 23 at 19-29; D.I. 25 at 11-15), and the Court will likewise look at these patents together as it analyzes their eligibility.

[18]   In deciding a Rule 12(b)(6) motion, a court may take judicial notice of a patent's prosecution history, which is a public record. *Genetic Techs. Ltd. v. Bristol-Myers Squibb Co.*, 72 F. Supp. 3d 521, 526 (D. Del. 2014) (citing *Hockerson-Halberstadt, Inc. v. Avia Grp. Int'l, Inc.*, 222 F.3d 951, 957 (Fed. Cir. 2000)).

words, the user terminals had no computing power, and instead the host systems in these prior art

networks were entirely responsible for modifying and assembling the requested applications

following every user interaction. ('967 patent, cols. 1:37-45, 10:37-41; '849 patent, cols. 1:34-42,

10:42-45) As these interactive applications became more popular and attracted more users,

processing bottlenecks occurred at the host systems. ('967 patent, cols. 1:46-55, 10:38-53; '849

patent, cols. 1:43-52, 10:45-57) While one solution to bottlenecking is expanding the size and

complexity of host processing capability, such expansion is expensive and requires higher user

costs. ('967 patent, col. 1:50-55; '849 patent, cols. 1:47-2:6) In order to be successful,

commercial interactive networks must provide interesting content to subscribers at low costs with

minimal response times. ('967 patent, cols. 1:61-2:6; '849 patent, cols. 1:58-2:9) The

specifications of the Filepp Patents explain that the networks described therein were designed to

achieve these goals by enabling reliance on the processing power of both the host system and the

user's personal computer. ('967 patent, col. 10:57-65; '849 patent, cols. 10:61-11:2)

More specifically, the specifications explain that the data structures that make up

applications, called objects, can be selectively stored for future use (either locally on the user's

personal computer or remotely at the host server). ('967 patent, col. 6:16-32; '849 patent, col.

6:18-32) These objects have a uniform, self-defining format which are known to the user's

reception system and are treated by those systems as components to construct interactive

applications. ('967 patent, col. 5:52-58, '849 patent, col. 5:54-60) While the users of prior art

networks had to wait for the host system to process, modify and send the entire display to the

user, the network described by the Filepp Patents relies on the user's personal computer to

retrieve from the network new objects on an as-needed basis, thereby dynamically creating

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updated displays in response to user requests. ('967 patent, col. 11:10-16; '849 patent, col. 11:15-20)

The goal of the '967 patent was to enable a user to navigate easily through multiple applications in an interactive service. ('967 patent, col. 2:41-67) The specification explains that the patented method "featur[es] steps for generating [] screen displays at respective user reception systems" that include multiple partitions for the concurrent presentation of applications and a group of command functions for managing the display. (*Id.*, cols. 2:41-3:8)

The '967 patent contains only 1 independent claim. The asserted claims are claims 1-9 and 12-17. (Defendants' Motion Presentation, Slide 38) Claim 1 of the '967 patent claims:

> **1.** A method for presenting interactive applications on a computer network, the network including a multiplicity of user reception systems at which respective users may request a multiplicity of available applications, the respective reception systems including a monitor at which the applications requested can be presented as one or more screens of display, the method comprising the steps of:
>
>> a. generating a screen display at a respective reception system for a requested application, the screen display being generated by the respective reception system from data objects having a prescribed data structure, at least some of which objects may be stored at the respective reception system, the screen display including a plurality of partitions, the partitions being constructed from objects, the objects being retrieved from the objects stored at the respective reception system, or if unavailable from the objects stored at the respective reception system, then from the network, such that at least some of the objects may be used in more than one application;
>>
>> b. generating at least a first partition for presenting applications; and
>>
>> c. generating concurrently with the first partition at least a second partition for presenting a plurality of command functions, the command functions including at least a first

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group which are selectable to permit movement between applications.

(*Id.*, col. 39:35-61)

Meanwhile, the '849 patent's goal is to provide a method for presenting relevant advertising to a user of an interactive service without distracting the user or disrupting the user's session. ('849 patent, col. 2:14-67) The patent's specification describes selectively storing advertising that is structured as objects to be displayed concurrently with applications. (*Id.*, col. 3:5-67)

The patent contains 5 independent claims (claims 1, 8, 13, 14 and 21). The asserted claims are claims 1-9, 12-22 and 25. (Defendants' Motion Presentation, Slide 47) Claim 1 of the '849 patent claims:

> **1.** A method for presenting advertising obtained from a computer network, the network including a multiplicity of user reception systems at which respective users can request applications, from the network, that include interactive services, the respective reception systems including a monitor at which at least the visual portion of the applications can be presented as one or more screens of display, the method comprising the steps of:
>
> > a. structuring applications so that they may be presented, through the network, at a first portion of one or more screens of display; and
> >
> > b. structuring advertising in a manner compatible to that of the applications so that it may be presented, through the network, at a second portion of one or more screens of display concurrently with applications, wherein structuring the advertising includes configuring the advertising as objects that include advertising data and;
> >
> > c. selectively storing advertising objects at a store established at the reception system.

('849 patent, col. 39:43-61)

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2. *Alice's* step one

Defendants assert that claim 1 of the '967 patent and claim 1 of the '849 patent are directed to the abstract ideas of "local storage of information and resources at a user's computer" and for using such information and resources in "presenting a partitioned display."[19] (D.I. 19 at 20, 26; D.I. 25 at 11-12; Tr. at 129) Defendants have accurately characterized the basic character of these claims. The Abstract of the '967 patent describes the core of the invention as follows:

> A method for presenting applications in an interactive service featuring steps for generating screen displays of the service applications at the reception systems of the respective users. Steps are provided for generating the application displays as screens having a plurality of partitions, *the partitions being constructed from reusable elements.*

('967 patent, Abstract (emphasis added)) Similarly, the Abstract of the '849 patent describes the invention as follows:

> A method for presenting advertising in an interactive service provided on a computer network [with] .... the advertising [] structured in a manner comparable to the service applications enabling the applications to be presented at a first portion of a display associated with the reception system and the advertising presented at a second portion. . . . steps are provided *for storing and managing advertising at the user reception system*[.]

('849 patent, Abstract (emphasis added)) The specifications later explain that the innovation over the prior art achieved by the inventions are that the user's computer "acts to manage and sustain

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[19] While Defendants also devoted a few sentences to claim 8 of the '849 patent in their opening brief, (D.I. 19 at 26-30), which relates to the concept of presenting to users targeted advertising that has been locally stored, ('849 patent, col. 40:24-41), Plaintiff's opposition brief and Defendants' reply brief do not further specifically address claim 8. With the Court finding herein that Defendants' Motion is not well taken as to claim 1 of the patent, and in the absence of almost any argument from either party specific to claim 8, the Court declines to address claim 8 here and will deny the Motion without prejudice as to that claim as well.

the user screen displays," and these displays are divided into partitions made up of objects stored at the user's computer. ('967 patent, cols. 10:37-11:16; '849 patent, cols. 10:41-11:20) In line with the character of the invention as described by the patent specifications, claim 1 of the '967 patent discloses a method for presenting interactive applications to users by generating a screen display including a plurality of partitions at a user's computer from information stored at the user's computer. ('967 patent, col. 39:35-61) Claim 1 of the '849 patent recites a method for presenting advertising to users by presenting advertising that has been stored at the user's computer on a portion of a screen display concurrently with applications. ('849 patent, col. 39:43-61) The heart of these inventions are as Defendants have described them—generating partitioned screen displays for users from information stored at the user's computer.

The next key question is whether these concepts at the heart of the invention are abstract ideas. The Court agrees with Defendants that the concepts of locally storing information and resources at a user's computer and presenting a partitioned display are abstractions "devoid of a concrete or tangible application." *Ultramercial III*, 772 F.3d at 715. People have been locally storing information and presenting displays of information with or without computer-based help for years. (*See, e.g.*, D.I. 19 at 21 (Defendants describing an individual creating a copy of a document that is also stored in a file room to avoid having to visit the file room each time she needs to use the document)) These concepts are comparable to other similar concepts that have been deemed to be abstract in recent cases. *See, e.g.*, *Content Extraction*, 776 F.3d at 1347 ("The concept of data collection, recognition, and storage is undisputedly well-known."); *CertusView Techs., LLC v. S & N Locating Servs., LLC*, 111 F. Supp. 3d 688, 709, 718 (E.D. Va. 2015) (finding that the claims were directed to the abstract ideas of electronically transmitting or storing

information and electronically displaying information, as applied to a particular technological environment).

3. *Alice*'s step two

Since claim 1 of the '967 patent and claim 1 of the '849 patents are directed towards abstract ideas, to be patent-eligible subject matter they must contain an inventive concept. The Court finds that it is plausible that when the limitations of the claims are considered together as an "ordered combination," they recite an invention amounting to a specific solution that is more than just the routine or conventional use of the Internet. Claim construction and discovery should further illuminate whether the claims' limitations are specific enough to be an inventive concept that avoids tying up too much future use of the abstract ideas of using locally stored information and advertising to generate partitioned displays.

Plaintiff asserts that the inventive concept encompassed by the claims is the breakdown of information and advertising into objects, and the storage of some of these objects locally and some of the objects on the network. This, according to Plaintiff, allows for on-the-fly construction of a partitioned display on the user's screen from these objects with a command bar for navigation among the displays. (Tr. at 137; *see also* D.I. 23 at 25-26) Defendants counter that "nothing about the host computer's operation actually changes under such a scenario[;] [i]ndeed, the host machine works just as it always did—the Filepp patents merely suggest asking the host system to do less processing, offloading that work to user machines." (D.I. 25 at 14)

The Court finds that division of applications and advertising into discreet "objects" that are stored locally and at the host computer appears to be a concrete application of the concept of "local storage." Relatedly, the claimed method of grabbing these objects both from the user's

computer and the network server to generate a screen display for a user would amount to

something more than simply using "local storage" to generate a "partitioned display."

Considered as a whole, the claims can be seen to attempt to improve the functioning of computer

networks by "reducing the demand on the host for processing resources[.]" (See '967 patent, col.

10:60-65; '849 patent, cols. 10:64-11:2) Plaintiff alleges that is the whole point of these

inventions, to create improved interactive networks that could support millions of users. Thus, at

this stage, it appears plausible that "as in *DDR Holdings*, the invention does not simply use a

computer to automate what was done previously, but rather *improves upon what was previously*

done with computers, solving a computer specific problem[.]" *Motio, Inc. v. BSP Software LLC*,

— F. Supp. 3d — , CASE NO. 4:12-CV-647, 2016 WL 26043, at *4 (E.D. Tex. Jan. 4, 2016)

(emphasis added) (finding that claims that recited a specific method using an "automated agent"

to maintain versions of electronic documents were patent eligible where they "expand[] the

functionality of existing computer software, local or on a computer network, by addressing a

problem specific to the realm of computers"); *Trading Techs Int'l, Inc. v. CQG, Inc.*, Case No.

05-cv-4811, 2015 WL 774655, at *5 (N.D. Ill. Feb. 24, 2015) (finding that claims directed to

displaying content contained an inventive concept, where they included an element that

"eliminated some problems of prior [art graphic user interfaces] relating to speed, accuracy and

usability").[20]

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[20]   *Compare Klaustech, Inc. v. Admob, Inc.*, No. C 10-05899 JSW, 2015 U.S. Dist. LEXIS 118532, at *7-9 (N.D. Cal. Aug. 31, 2015) (claims directed to a "novel centrally-located, non-scrolling advertisement display frame on an Internet browser" address "the prevailing problem of advertising on the Internet" and passed muster under Section 101 because they employ "a new approach to control and monitor the display of advertisement on Internet browsers and seek[] to solve technical problems that do not exist in the conventional advertising realm"), *with Datatrak Int'l, Inc. v. Medidata Solutions, Inc.*, CASE No. 1:11 CV 458, 2015 WL

Defendants also complain that the claim limitations do not provide enough details to elevate the claims to concrete applications of an abstract concept. (D.I. 19 at 22; D.I. 25 at 14) By way of example, Defendants note that the claims lack detail regarding "how, for example, the claimed data objects generate the display, the underlying structure of the objects . . . or the way the displays are generated concurrently." (D.I. 19 at 22) The *Markman* process may provide further clarity on this issue. (D.I. 23, ex. K) Plaintiff's proposed construction for "objects" is "separate data structures having a uniform, self-defining format that are known to the reception systems, including, *e.g.*, data types, such as interpretable programs and presentation data for display at the monitor screen of the user's personal computer." (*Id.* (citing '967 patent, col. 5:52-58; '849 patent, col. 5:54-60)) Such a construction at least is meant to get to, *inter alia*, "the underlying structure of the objects" as well as *how* the objects generate the display (i.e., they are known to the reception system in that they are stored there).

Defendants next contend that "[i]nstead of reciting a specific way to use locally stored data on a computer to generate a partitioned display, [the claims] instead improperly attempt[] to preempt nearly every application of the idea." (D.I. 19 at 24, 29) However, as just explained, the claim construction process will better inform whether the claims are specific enough to avoid disproportionately preempting all applications of the idea. The discovery process may also play a helpful role as to that question. For instance, while Defendants assert that "the Filepp patents cover all of Defendants' webpages, and most likely, nearly every other webpage on the

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6870109, at *6 (N.D. Ohio Nov. 6, 2015) (finding that claims did not contain an inventive concept where the patent's proffered improvements were not rooted in computer technology to overcome a problem specifically arising in realm of computer networks, but instead related to "common problems generally associated with large amounts of data, not computer networks"—problems that have been around for ages and affect non-computerized data storage).

Internet[,]" (D.I. 25 at 15), it is not clear to the Court on the present record (1) how many of Defendants' webpages are at issue here; (2) whether the patents indeed cover almost all webpages in existence; or (3) whether other methods exist of locally storing information and advertising for use in presenting displays to users (i.e., involving something other than breaking such data into objects stored at both the host and user computers).

The record would also benefit from further development with respect to whether the claims are innovative enough to override the routine and conventional functions of a computer. The specifications of the patents explain that in the prior art interactive networks, information would be displayed to the user in sequential fashion because "the host [computer was] required to satisfy all the user data processing requests." ('967 patent, col. 1:36-50; '849 patent, col. 1:34-48) Accordingly, the invention's utilization of data *stored as objects locally and at the host* to present applications and advertisements on the user's screen in partitioned displays appears to have amounted to then-innovative functionality. Indeed, Plaintiff's Complaint alleges that the inventors of the Filepp Patents "developed novel methods for presenting applications and advertisements in an interactive service that would take advantage of the computing power of each user's PC" by structuring applications "to be comprised of 'objects' of data and program code capable of being processed by a user's PC[.]" (D.I. 1 at ¶ 18) On this point, Defendants' counsel responded during oral argument that the claims amount to nothing more than storing and recalling, which is "Basic Network Computing 101. . . . I generate a display based on something that I have stored, and then if I need to go retrieve more information to generate, I'll go retrieve it." (Tr. at 134-35) However, construing Plaintiff's allegations in the light most favorable to it, as the Court must at this point in the case, the Court finds it plausible that the solutions described

by the claims are sufficiently innovative. A more robust factual record, as will inevitably be developed during the discovery process, should shed additional light on this inquiry.

4. Conclusion

For these reasons, at this stage of the case, Defendants have failed to meet their burden of demonstrating that claim 1 of the '967 patent and claim 1 of the '849 patent are devoid of inventive concepts. The Court therefore recommends that Defendants' Motion be denied without prejudice as to the Filepp Patents.
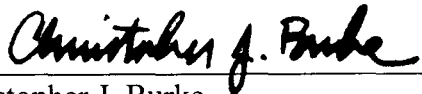
IV. CONCLUSION

For the foregoing reasons, the Court recommends that Defendants' Motion to Dismiss be DENIED, without prejudice to Defendants' ability to later renew a Section 101 challenge in the form of a summary judgment motion.

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b). The failure of a party to object to legal conclusions may result in the loss of the right to de novo review in the district court. *See Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987); *Sincavage v. Barnhart*, 171 F. App'x 924, 925 n.1 (3d Cir. 2006).

The parties are directed to the Court's Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated October 9, 2013, a copy of which is available on the District Court's website, located at http://www.ded.uscourts.gov.

Dated: February 16, 2016

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Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE