

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

IPA TECHNOLOGIES, INC.,

Plaintiff,

v.

AMAZON.COM, INC., and AMAZON  
DIGITAL SERVICES, LLC,

Defendants.

Civil Action No. 16-1266-RGA

MEMORANDUM OPINION

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October 28, 2021

  
ANDREWS, U.S. DISTRICT JUDGE:

Before me is Defendants' Motion for Summary Judgment of Non-Infringement. (D.I. 281). I have reviewed the parties' briefing (D.I. 282, 335, 374). I held oral argument on October 14, 2021. (D.I. 401). For the reasons that follow, I will grant this motion and dismiss the other pending motions as moot.

## **I. BACKGROUND**

Plaintiff IPA Technologies filed this patent infringement action against Amazon on December 19, 2016 and amended its complaint on April 11, 2018. (D.I. 1, 33). IPA asserts infringement of claims 10, 29, 34, 35, and 38 of U.S. Patent No. 6,851,115 ("the '115 patent") and claims 28 and 50 of U.S. Patent No. 7,069,560 ("the '560 patent"). (D.I. 275 at 1). Claim 29 of the '115 patent and claim 50 of the '560 patent are independent claims; the rest are dependent claims that depend either from one of those two claims or from unasserted claim 1 of the '115 patent or claim 26 of the '560 patent. The two patents have identical specifications and have both expired. (D.I. 282 at 1 & n.1).

The asserted patents disclose a software-based architecture called the "Open Agent Architecture" or "OAA," which "support[s] cooperative task completion by flexible, dynamic configurations of autonomous electronic agents" with the help of "one or more facilitators." ('560 patent at abstract; *see also* '115 patent at abstract). Claim 1 of the '115 patent<sup>1</sup> (which is generally representative of the asserted claims) recites:

A computer-implemented method for communication and cooperative task completion among a plurality of distributed electronic agents, comprising the acts of:

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<sup>1</sup> Claim 1 of the '115 patent is unasserted. Claim 10 of the same patent, however, depends from unasserted claims 1 and 5. Claims 34, 35, and 38 of the '115 patent depend from claim 29. Claim 28 of the '560 patent depends from unasserted claim 26.

registering a description of each active client agent's functional capabilities as corresponding registered functional capabilities, using an expandable, platform-independent, inter-agent language, wherein the inter-agent language includes:

a layer of conversational protocol defined by event types and parameter lists associated with one or more of the events, wherein the parameter lists further refine the one or more events;

a content layer comprising one or more of goals, triggers and data elements associated with the events;

receiving a request for service as a base goal in the inter-agent language, in the form of an arbitrarily complex goal expression; and

dynamically interpreting the arbitrarily complex goal expression, said act of interpreting further comprising:

generating one or more sub-goals expressed in the inter-agent language;

constructing a goal satisfaction plan wherein the goal satisfaction plan includes:

a suitable delegation of sub-goal requests to best complete the requested service request—by using reasoning that includes one or more of domain-independent coordination strategies, domain-specific reasoning, and application-specific reasoning comprising rules and learning algorithms; and

dispatching each of the sub-goals to a selected client agent for performance, based on a match between the sub-goal being dispatched and the registered functional capabilities of the selected client agent.

IPA asserts that Amazon's Alexa technology infringes the asserted claims. (D.I. 335).<sup>2</sup>

Alexa is a voice-based virtual assistant that understands and responds to spoken commands. (D.I.

401 at 5:3–10; D.I. 337-1, Ex. A, ¶¶ 57–59). For example, a user can ask an Alexa-enabled

device, like an Echo speaker, to play music or tell a joke. (*Id.*).

Alexa's basic operation is undisputed:

(1) an Alexa-enabled device such as Echo sends an audio of the user's utterance to an Orchestrator running on Amazon's cloud-based servers; (2) Orchestrator transmits the audio to an Automatic Speech Recognition ("ASR") component; (3) ASR returns to Orchestrator a set of possible words recognized from the utterance (e.g., "what's," "the," "weather," and "tomorrow") in a format called Semantic Interpretation Result Format ("SIRF"); (4) Orchestrator transmits the SIRF output to a Natural language Understanding ("NLU") component; (5) NLU returns to Orchestrator a set of possible interpretations of the user's meaning or intent (e.g., the "GetWeatherForecastIntent") in Blueshift Interpretation Format ("BIF") or NLU Interpretation Format ("NIF"); and (6) Orchestrator transmits the BIF or NIF output to a "Panda" component, which is responsible for

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<sup>2</sup> IPA only asserts a theory of literal infringement. (D.I. 401 at 28:24–29:2).

identifying candidate speechlets (Amazon’s own first-party services) or a skill (third-party service) that may be able to handle the user’s request.

(D.I. 282 at 4).

## II. LEGAL STANDARDS

### A. Summary Judgment

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a). Material facts are those “that could affect the outcome” of the proceeding. *Lamont v. New Jersey*, 637 F.3d 177, 181 (3d Cir. 2011) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). “[A] dispute about a material fact is ‘genuine’ if the evidence is sufficient to permit a reasonable jury to return a verdict for the nonmoving party.” *Id.* The burden on the moving party may be discharged by pointing out to the district court that there is an absence of evidence supporting the non-moving party’s case. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

The burden then shifts to the non-movant to demonstrate the existence of a genuine issue for trial. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586–87 (1986); *Williams v. Borough of West Chester*, 891 F.2d 458, 460–61 (3d Cir. 1989). A non-moving party asserting that a fact is genuinely disputed must support such an assertion by: “(A) citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations . . . , admissions, interrogatory answers, or other materials; or (B) showing that the materials cited [by the opposing party] do not establish the absence . . . of a genuine dispute . . . .” FED. R. CIV. P. 56(c)(1). The non-moving party’s

evidence “must amount to more than a scintilla, but may amount to less (in the evaluation of the court) than a preponderance.” *Williams*, 891 F.2d at 461.

When determining whether a genuine issue of material fact exists, the court must view the evidence in the light most favorable to the non-moving party and draw all reasonable inferences in that party’s favor. *Wishkin v. Potter*, 476 F.3d 180, 184 (3d Cir. 2007). If the non-moving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *See Celotex Corp.*, 477 U.S. at 322.

### **B. Infringement**

“Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device.” *Kahn v. Gen. Motors Corp.*, 135 F.3d 1472, 1477 (Fed. Cir. 1998). “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Rsch. Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). If an accused product does not infringe an independent claim, it also does not infringe any claim depending thereon. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989).

When an accused infringer moves for summary judgment of non-infringement, such relief may be granted only if at least one limitation of the claim in question does not read on an element of the accused product, either literally or under the doctrine of equivalents. *See Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005); *see also TechSearch, LLC v. Intel Corp.*, 286 F.3d 1360, 1369 (Fed. Cir. 2002) (“Summary judgment of noninfringement is . . . appropriate where the patent owner’s proof is deficient in meeting an essential part of the legal standard for infringement, because such failure will render all other facts immaterial.”). Thus,



summary judgment of non-infringement can only be granted if, after viewing the facts in the light most favorable to the non-movant, there is no genuine issue as to whether the accused product is covered by the claims (as construed by the court). *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999).

### III. DISCUSSION

One of Amazon's multiple non-infringement arguments is that Alexa does not meet the ICL service request limitation.

All asserted claims require an "inter-agent language" or "interagent communication language" ("ICL"). ('115 patent, claims 1, 29; '560 patent, claims 26, 50). I construed both "inter-agent language" and "ICL" as "an interface, communication, and task coordination language." (D.I. 128 at 2). IPA and its expert Dr. Medvidovic argue that the combination of Alexa's SIRF and BIF/NIF formats is the "ICL." (D.I. 335 at 2; D.I. 337-1, Ex. A, ¶¶ 126–128, 137).

Each asserted claim also requires a service request expressed in the ICL. ('115 patent, claims 1, 29; '560 patent, claims 26, 50). Claim 1 of the '115 patent, for example, recites "receiving a request for service . . . in the inter-agent language."<sup>3</sup> Dr. Medvidovic contends that SIRF represents the user's utterance and thus is the claimed service request. (D.I. 337-1, Ex. A, ¶¶ 209–211). Amazon argues that based on this theory, SIRF must meet all the requirements of

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<sup>3</sup> Claim 29 of the '115 patent recites "the service request adhering to an Interagent Communication Language (ICL)." Claim 26 of the '560 patent recites "the service request formed according to an Interagent Communication Language (ICL)." Claim 50 of the '560 patent recites "the service request adhering to the Interagent Communication Language (ICL)." The parties treat these limitations as the same for purposes of this motion, and I see no reason to differentiate them in this regard. Thus, I will apply the same analysis for each claim. (*See* D.I. 282 at 8; D.I. 335 at 7–8).

the ICL, which it does not. (D.I. 282 at 8). Specifically, the asserted claims require a layer of conversational protocol within the ICL. ('115 patent, claims 1, 29; '560 patent, claims 26, 50). Dr. Medvidovic contends that the claimed layer of conversational protocol is present in BIF, but not in SIRF. (D.I. 337-1, Ex. A, ¶ 160). Thus, Amazon argues that Alexa does not have a service request in the ICL because SIRF does not include the layer of conversational protocol required in the ICL. (D.I. 282 at 8).

IPA responds that the claims do not require that the service request “contain every component of ICL, only what is needed to represent the request.” (D.I. 335 at 7). IPA also contends that it is sufficient that the service request adheres to the SIRF portion of the ICL. (*Id.*).

IPA's arguments are not supported by the claim language. For example, asserted claim 50 of the '560 patent requires “the service request adhering to the [ICL], the ICL including a layer of conversational protocol” among other limitations. This claim language shows that the service request must be recited in the claimed ICL and must meet every requirement of the claimed ICL. Nothing in this claim language supports a service request adhering only to a selected portion of the ICL. Since it is undisputed that the SIRF format does not include a layer of conversational protocol, Alexa cannot meet the ICL service request limitation. SIRF also cannot be the claimed ICL service request because, as IPA concedes, SIRF is a format, not a language. (D.I. 335 at 4; D.I. 401 at 23:10, 22–25). Thus, a service request received as an instance of the SIRF format cannot be a service request expressed in ICL. (*See* D.I. 374 at 1, 3). IPA has no evidence of a limitation that is present in every asserted claim.

For the foregoing reasons, I grant Amazon's motion for summary judgment of non-infringement on all asserted claims.<sup>4</sup>

#### **IV. CONCLUSION**

An appropriate order will issue.

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<sup>4</sup> Amazon also argues that Alexa does not infringe because it does not meet (1) the inter-agent language or ICL limitations; (2) the layer of conversational protocol limitations; (3) the arbitrarily complex or compound goal limitations; or (4) the agent registry limitations. (D.I. 282). Because I will grant summary judgment of non-infringement on other grounds, I need not address these arguments.