

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

PROLITEC INC.,

*Plaintiff/Counterclaim Defendant,*

v.

SCENTAIR TECHNOLOGIES, LLC,

*Defendant/Counterclaim Plaintiff.*

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Civil Action No. 20-984-WCB

**FILED UNDER SEAL**

**MEMORANDUM OPINION AND ORDER**

In this patent infringement action, both counter claimant ScentAir Technologies, LLC (“ScentAir”) and counter defendant Prolitec Inc. have moved for summary judgment, and both have moved to exclude various opinions of experts under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and Federal Rule of Evidence 702. Prolitec has moved for summary judgment of patent ineligibility under 35 U.S.C. § 101, invalidity under the on-sale bar rule, and noninfringement. Prolitec has also moved to exclude the apportionment opinions of ScentAir’s damages expert. ScentAir has moved for summary judgment of no invalidity under 35 U.S.C. § 102 or § 103, no invalidity based on the on-sale bar rule, and no unenforceability based on inequitable conduct. ScentAir also has moved to exclude various invalidity opinions of Prolitec’s technical expert.

For the reasons set forth below, Prolitec’s motions for summary judgment of ineligibility under 35 U.S.C. § 101, invalidity under the on-sale bar rule, and noninfringement are all denied. Prolitec’s *Daubert* motion is also denied. ScentAir’s motions for summary judgment of no invalidity under 35 U.S.C. § 102 or § 103, no invalidity under the on-sale bar rule, and no inequitable conduct are all denied. ScentAir’s *Daubert* motion is also denied.

## I. Background

ScentAir originally asserted four patents against Prolitec. The only remaining patent in dispute is U.S. Patent Number 10,838,388 (“the ’388 patent”). At a high level, the ’388 patent is directed to a scent delivery system. As the specification explains, generating a desired scent profile requires controlling the output of individual scent delivery devices and monitoring the status of those devices in real-time. *E.g.*, ’388 patent at 2:55–60. The ’388 patent discloses a computer-implemented method for controlling the delivery of scents. The claimed method uses two tables, identified as the in table and the out table. The in table stores verification information from individual scent delivery devices, namely, real-time status updates of each device. *Id.* at 16:30–38, 18:67–19:3. The out table stores “command data” for the devices, namely, real-time instructions for each device. *Id.* at 16:5–8.

Prolitec identifies claim 1 as representative. Dkt. No. 383 at 3. ScentAir does not dispute that it is representative, and I will treat it as such. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) (“Courts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative.”). Claim 1 recites:

A computer-implemented method for delivering scents, comprising:

establishing a communication network including a central controller and one or more networked scent delivery devices, wherein the central controller is configured to control an operation of each of the one or more networked scent delivery devices, wherein controlling the operation is based on one or more master schedules, and wherein the central controller stores an in table in which verification information relating to each networked scent delivery device is stored and an out table in which instructions for each networked scent delivery device are stored;

generating command data that is configured to control the operation of a networked scent delivery device of the one or more networked scent delivery devices, wherein the command data is generated based on the instructions stored in the out table of the central controller;

transmitting the command data to the networked scent delivery device using the communication network;

receiving a signal from the networked scent delivery device using the communication network, wherein the signal includes status data representing a status of the networked scent delivery device; and

storing the status associated with the networked scent delivery device in the in table of the central controller, wherein the status stored in the in table of the central controller identifies a functionality of the networked scent delivery device, thereby providing a real-time status update for each networked scent delivery device.

'388 patent at 25:38–67.

## **II. Legal Standards**

### **A. Summary Judgment**

A district 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). A factual dispute is genuine and material if a reasonable factfinder could return a verdict for the nonmoving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

On an issue as to which the moving party bears the burden of proof at trial, the party seeking summary judgment must “establish the absence of a genuine factual issue.” *Resol. Tr. Corp. v. Gill*, 960 F.2d 336, 340 (3d Cir. 1992). If the motion does not persuasively establish that no factual issue exists, summary judgment should be denied “even if no opposing evidentiary matter is presented.” *Id.* Once the moving party with the burden of proof makes a showing that there is no genuine issue of material fact, that party is entitled to summary judgment “unless the non-moving party comes forward with probative evidence that would demonstrate the existence of a triable issue of fact.” *In re Bressman*, 327 F.3d 229, 238 (3d Cir. 2003); *see Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986); *Anderson*, 477 U.S. at 250.

On an issue as to which the nonmoving party bears the burden of proof at trial, the party seeking summary judgment “bears the initial responsibility of informing the district court of the

basis for its motion, and identifying those portions of ‘the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any,’ which it believes demonstrate the absence of a genuine issue of material fact.” *Celotex*, 477 U.S. at 323 (1986) (quoting Fed. R. Civ. P. 56(c) as of 1986). The moving party can alternatively make a showing that there is no genuine issue of material fact by pointing out to the district court that “there is an absence of evidence to support the nonmoving party’s case.” *Id.* at 325. Once such a showing is made, the nonmoving party must “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (cleaned up).

## **B. The *Daubert* Standard**

The admissibility of expert testimony is governed by the Supreme Court’s decision in *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and its progeny. Under *Daubert* and Federal Rule of Evidence 702, the trial court is assigned the task of ensuring that an expert’s testimony rests on a reliable foundation and is relevant to the task at hand. *Id.* at 597. In particular, the court must determine whether the reasoning or methodology underling the expert’s testimony is scientifically valid and whether the reasoning or methodology can properly be applied to the facts at issue in the case. *Id.* at 593. In *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999), the Court made clear that the *Daubert* framework applies broadly to “scientific, technical, or other specialized knowledge,” and that the rules of evidence require the trial judge to determine “whether the testimony has ‘a reliable basis in the knowledge and experience of [the relevant] discipline.’” *Id.* (quoting *Daubert*, 509 U.S. at 592).

### **III. Discussion**

#### **A. Summary Judgment Regarding Patent-Eligibility Under Section 101**

Prolitec argues that the claims of the '388 patent are ineligible for patenting under 35 U.S.C. § 101 and that the court should grant summary judgment to Prolitec on that issue. Dkt. No. 383 at 8–18. ScentAir responds that the standard for proving patent ineligibility has not been satisfied, and that Prolitec's motion should therefore be denied. Dkt. No. 388 at 3–17.

##### **1. Principles**

Section 101 of the Patent Act defines patent-eligible subject matter. It states: “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. The Supreme Court has interpreted section 101 to carve out exceptions to that broad characterization of patentable subject matter for “[l]aws of nature, natural phenomena, and abstract ideas.” *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

The framework for determining whether a patent is directed to an unpatentable abstract idea is well settled. The Supreme Court's decision in *Alice* established the now-familiar two-step test for patentability in that context. The first step entails determining whether the claim at issue is directed to an “abstract idea.” The second step entails determining whether the claim contains an “inventive concept” that removes the claimed subject matter from the realm of abstraction. *Alice*, 573 U.S. at 217–18; *see also Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 72–73 (2012).

## 2. Abstract Idea

Neither the Supreme Court nor the Federal Circuit has ventured a single, comprehensive definition of an “abstract idea.” *See Alice*, 573 U.S. at 221 (“[W]e need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case.”); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (“We need not define the outer limits of ‘abstract idea’ . . . .”); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the *Mayo/Alice* inquiry . . . .”). Rather than a unitary test, what has emerged from the cases applying section 101 is a group of related principles that can be applied in gauging whether or not a patent claim is directed to an abstract idea. Those general principles that most directly apply to this case are the following:

First, the courts have characterized “method[s] of organizing human activity” as abstract. *See Alice*, 573 U.S. at 220; *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1285 (Fed. Cir. 2018). For example, the courts have identified fundamental economic and business practices as abstract ideas. *See Elec. Power Grp.*, 830 F.3d at 1353; *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018); *Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016). Such business practices can include relatively specific functions such as disseminating regionally broadcasted content to users outside the region, *see Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1261–62 (Fed. Cir. 2016); classifying an image and storing the image based on its classification, *see In re TLI Commc’ns LLC Pat. Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); or managing a bingo game, *see Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1008 (Fed. Cir. 2014).

Applying that principle to patents that claim the use of computers in performing particular activities, courts have held that simply implementing particular human activity on a computer does not make those practices patent-eligible. *See BSG Tech*, 899 F.3d at 1285 (“If a claimed invention only performs an abstract idea on a generic computer, the invention is directed to an abstract idea at step one” of *Alice*.); *Fair Warning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016); *TLI*, 823 F.3d at 612; *Enfish*, 822 F.3d at 1338.

Second, as applied to computer applications, the courts have looked to whether the claim in question is directed to an improvement in computer technology as opposed to simply providing for the use of a computer to perform “tasks for which a computer is used in its ordinary capacity.” *Enfish*, 822 F.3d at 1336; *see also Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1357 (Fed. Cir. 2021); *Yu v. Apple Inc.*, 1 F.4th 1040, 1044 (Fed. Cir. 2021); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016). Where the claims at issue provide for an improvement in the operation of a computer, such as a new memory system, a new type of virus scan, or a new type of interface that makes a computer function more accessible, the Federal Circuit has found the claims patent-eligible. *See Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007–11 (Fed. Cir. 2018) (methods for making electronic spreadsheets more accessible); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1361–63 (Fed. Cir. 2018) (improved display devices); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303–06 (Fed. Cir. 2018) (novel method of virus scanning); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258–60 (Fed. Cir. 2017) (improved computer memory system).

Third, in the field of computer-related applications, the Federal Circuit has held that claims “directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected

manner” are abstract. *Int’l Bus. Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1378 (Fed. Cir. 2022) (quoting *In re Killian*, 45 F.4th 1373, 1380 (Fed. Cir. 2022)); *see also SAP Am.*, 898 F.3d at 1167 (“[C]laims focused on ‘collecting information, analyzing it, and displaying certain results of the collection and analysis’ are directed to an abstract idea.” (quoting *Elec. Power Grp.*, 830 F.3d at 1353–54; *Trading Techs. Int’l, Inc. v. IBG, LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018); *Fair Warning IP*, 839 F.3d at 1093).

Fourth, in determining whether a method claim is directed to an abstract idea, the Federal Circuit has focused on whether the claim is purely functional in nature or is sufficiently concrete or specific to be directed to a patent-eligible process rather than a patent-ineligible result. For example, in *SAP America*, 898 F.3d at 1167, the court asked whether the claim had “the specificity required to transform [it] from one claiming only a result to one claiming a way of achieving it.” To answer that question, the Federal Circuit has directed courts to “look to whether the claims focus on a specific means or method, or are instead directed to a result or effect that itself is the abstract idea and merely invokes generic processes and machinery.” *See also Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017); *McRO*, 837 F.3d at 1314 (“We . . . look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.”); *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1244 (Fed. Cir. 2016) (claim that “calls for the desired result of associating a customer’s order with said customer, and does not attempt to claim any method for achieving that result” is ineligible); *see generally Diamond v. Diehr*, 450 U.S. 175, 182 n.7 (1981) (A patent may issue “for the means or method of producing a certain result or effect, and not for the result or



effect produced.”); *Le Roy v. Tatham*, 55 U.S. 156, 175 (1853) (“A patent is not good for an effect, or the result of a certain process” because such patents “would prohibit all other persons from making the same thing by any means whatsoever.”).

Fifth, and relatedly, “the concern that drives” the judicial exceptions to patentability is “one of preemption.” *Alice*, 573 U.S. at 216; *see also ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). In determining whether a particular invention is directed to an abstract idea, it is therefore important to ask whether according patent protection to the claimed subject matter would have a broad preemptive effect on future innovation in the same field. *See Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013).

### **3. Inventive Concept**

If the court determines that a claim is directed to an abstract idea, the court proceeds to *Alice* step two. That step requires the court “to examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 72, 78–79).

The “inventive concept” is “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 573 U.S. at 217–18 (quoting *Mayo*, 566 U.S. at 72). That step serves to ensure that the claim is directed to more than merely implementing an abstract idea using “well-understood, routine, [and] conventional activities previously known in the industry.” *Coop. Ent., Inc. v. Kollektive Tech., Inc.*, 50 F.4th 127, 130 (Fed. Cir. 2022) (quoting *Alice*, 573 U.S. at 225). That is, *Alice* step two requires the claimed invention to do more than combine known techniques that “yield[] only expected results,” *Universal Secure Registry*, 10 F.4th at 1353; instead, it must

“focus on a specific means or method that improves the relevant technology,” *Weisner v. Google LLC*, 51 F.4th 1073, 1083 (Fed. Cir. 2022) (citation omitted). In particular, the Federal Circuit has asked whether the claim or claims at issue are “directed to a technological solution to a technological problem.” *cxLoyalty, Inc. v. Maritz Holdings Inc.*, 986 F.3d 1367, 1378 (Fed. Cir. 2021); *see also BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350–51 (Fed. Cir. 2016); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257–58 (Fed. Cir. 2014).

The preemptive effect of the asserted claims is also a relevant consideration at *Alice* step two. The Federal Circuit has explained the relationship between preemption and the existence of an inventive concept:

We have explained that claims for methods that “improve[] an existing technological process” include an inventive concept at step two. *BASCOM*, 827 F.3d at 1350–51 (quoting *Alice*, 573 U.S. at 221, 223). And claims that “recite a specific, discrete implementation of the abstract idea” rather than “preempt[ing] all ways of” achieving an abstract idea using a computer may include an inventive concept. *Id.* at 1350. But claims to “an abstract idea implemented on generic computer components, without providing a specific technical solution beyond simply using generic computer concepts in a conventional way” do not pass muster at step two. *Id.* at 1352.

*Killian*, 45 F.4th at 1382 (cleaned up). Thus, whether the claims recite “a specific, discrete implementation of the abstract idea” rather than preempting all implementations of that idea is an appropriate consideration in the step two inquiry. *See id.*

#### **4. Application**

In simple terms, claim 1 of the ’388 patent can be summarized as follows: (1) establishing a central controller with two tables (an “in table” and an “out table”), (2) storing the scent delivery devices’ information, namely, the real-time status of the devices, in the in table, (3) storing

instructions for the scent delivery devices in the out table, and (4) controlling the scent delivery devices based on the instructions from the out table.

**i. Alice Step One**

The *Alice* step one inquiry considers “what the patent asserts to be the focus of the claimed advance over the prior art.” *Yu*, 1 F.4th at 1043 (citation omitted). ScentAir identifies the claims’ use of the two-table structure as the advancement over the prior art. Specifically, ScentAir argues that the “divided I/O arrangement of the in table and out table to control and monitor distributed devices based on a centralized schedule provides technical benefits not previously available.” Dkt. No. 388 at 6; *see also id.* at 5 (characterizing claims as directed to “a specific, technical design of a central controller whereby it separates I/O (computer input and output of data) into two distinct database tables (the ‘in table’ and the ‘out table’), one to control networked devices and one to receive ‘real-time’ status updates for those networked devices”), 3 (The claims “are directed to a specific, technical configuration of a central controller of networked devices whereby the outbound control of the devices and the inbound monitoring of ‘real-time’ status of those devices is decoupled into two distinct database tables: the ‘in table’ and the ‘out table.’”).

Prolitec argues that the most technical aspect of the claims—the in and out tables—is merely a generic data structure. Dkt. No. 383 at 9. Specifically, it characterizes the in and out tables as “simple data entry tables that contain information related to the schedule and when the device was updated.” *Id.* at 10. Therefore, Prolitec argues, the claims lack any concrete or specific steps for how to perform the claimed monitoring and controlling, such that the claims are directed to the abstract idea of monitoring and controlling networked scent delivery devices. I agree with Prolitec.

To begin with, the idea of controlling the operation of devices based on a set of instructions and collecting information regarding the real-time status of the devices is at its core a “method of organizing human activity.” *See Alice*, 573 U.S. at 220. For example, a human using pen and paper could record instructions for the operation of a set of devices on a first piece of paper, control the devices according to those instructions, monitor the status of the devices, and record the status of the devices on a second piece of paper. That the claims call for this series of actions to be implemented on a computer does not confer patent eligibility. *Id.* at 223.

Although the claims of the ’388 patent are specific to delivering scents, the Supreme Court and the Federal Circuit have considered the patent-eligibility of analogous claims addressed to specific subject matter in other fields. The courts’ cases support the conclusion that the claims here are directed to an abstract idea. First, the Supreme Court in *Alice* considered a claim that recited “(1) ‘creating’ shadow records for each counterparty to a transaction; (2) ‘obtaining’ start-of-day balances based on the parties’ real-world accounts at exchange institutions; (3) ‘adjusting’ the shadow records as transactions are entered, allowing only those transactions for which the parties have sufficient resources; and (4) issuing irrevocable end-of-day instructions to the exchange institutions to carry out the permitted transactions.” *Id.* at 224. The court explained that creating and maintaining the shadow account amounts (i.e., “electronic recordkeeping”), obtaining data, adjusting records, and issuing automated instructions are all generic computer functions that could be performed on a generic computer. *Id.* at 225.

Second, in *Accenture*, the Federal Circuit considered a claim to a system used to generate tasks for an insurance organization that stored information regarding an insurance transaction in a database, determined what task needed to be accomplished following an event, and assigned that task using various databases and a processor. 728 F.3d at 1338. The court explained that

generating tasks based on rules to be completed upon the occurrence of an event was an abstract idea. *Id.* at 1344.

Third, in *Symantec*, the Federal Circuit considered a claim to an electronic version of a mailroom that would receive correspondence, keep business rules defining actions to be taken based on attributes of the correspondence, apply those rules to the correspondence, and take certain actions based on the application of rules such as gating the message or releasing the message. 838 F.3d at 1317. The court found that, “with the exception of generic computer-implemented steps, there is nothing in the claims themselves that forecloses them from being performed by a human, mentally or with pen and paper.” *Id.* at 1318.

The claims in this case recite (1) receiving the real-time status of devices and storing them in the in table and (2) controlling the devices in accordance with the instructions stored in the out table. Like the claims in *Alice*, *Accenture*, and *Symantec*, these claimed actions are generic computer functions that could be performed on a generic computer. That conclusion is further supported by the fact that the computer components identified in the claims are all generic—for example, the claims refer to “communication network,” “central controller,” “in table,” “out table,” “command data,” and “signal.” See *GeoComply Sols. Inc. v. Xpoint Servs. LLC*, No. CV 22-1273, 2023 WL 1927393, at \*7 (D. Del. Feb. 10, 2023), *aff’d*, No. 2023-1578, 2024 WL 4717268 (Fed. Cir. Nov. 8, 2024).

ScentAir argues that bifurcating the functions of monitoring and controlling the scent devices in two separate tables is a specific, technical improvement in computer capability. In support of that position, ScentAir cites sections of the specification, statements from the *ex parte* reexamination proceeding record, and expert testimony.

As an initial matter, there is tension in the case law about when to evaluate whether the claims recite a “technological solution to a technological problem.” Some cases suggest that courts should consider that question at step one of the *Alice* test. *See, e.g., Packet Intel. LLC v. NetScout Sys., Inc.*, 965 F.3d 1299, 1309 (Fed. Cir. 2020); *Universal Secure Registry*, 10 F.4th at 1352; *CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC*, 15 F.4th 1091, 1100 (Fed. Cir. 2021) (Reyna, J., concurring). But *cxLoyalty*, *BASCOM*, and *DDR Holdings* make clear that the existence of a technological solution to a technological problem is an appropriate consideration at step two of *Alice*. *See cxLoyalty*, 986 F.3d at 1378; *BASCOM*, 827 F.3d at 1350–51; *DDR Holdings*, 773 F.3d at 1257–58. Nevertheless, the Federal Circuit has recognized that there is some overlap between the two steps. *See CareDx, Inc. v. Natera, Inc.*, 40 F.4th 1371, 1379 (Fed. Cir. 2022) (citing *Elec. Power Grp.*, 830 F.3d at 1353). Because the parties have briefed the technological solution to a technological problem issue primarily with respect to step one, I provide my analysis here at step one.

First, based on the plain language of the claims, I disagree with ScentAir that the claims recite a “specific, technical design” or “configuration” of a central controller. *See* Dkt. No. 388 at 3, 5. Claim 1 provides that “the central controller stores an in table” and “an out table.” It further provides that “verification information relating to each networked scent delivery device” is stored in the in table, and “instructions for each networked scent delivery device” are stored in the out table. The parties’ experts agree that “tables” are databases, which are conventional data structures. *See* Dkt. No. 381, Exh. 6 at ¶¶ 8, 12; Dkt. No. 388, Exh. E at 81:22–82:2. Therefore, claim 1 identifies only a generic data structure without any specificity regarding implementation (a table) and the category of information that it stores (verification information or instructions).

ScentAir cites three cases that it argues support its position that the claims are directed to improvements in computer functioning. But comparing the claims at issue in those cases to the claims at issue in this case further underscores the fact that the claims here do not recite a “specific, technical” design. First, in *Visual Memory*, the claims were directed to an improved computer memory system implemented using three separate caches, each of which was programmable based on the type of connected processor. 867 F.3d at 1259–60. Second, in *IOENGINE, LLC v. PayPal Holdings, Inc.*, 607 F. Supp. 3d 464 (D. Del. 2022), the claims were directed to a portable device with a processor, and the patent described the particular hardware components with their particular features and arrangement in some detail. *Id.* at 484–485. Third, in *Sonos, Inc. v. D&M Holdings Inc.*, No. CV 14-1330, 2017 WL 971700 (D. Del. Mar. 13, 2017), the claims were not directed to generic technology, but were directed to controllers and networked audio players that the court found to be described in detail in the specification. *Id.* at \*6.

In contrast to those three cases, neither the specification nor the claims in this case disclose any specific technical design or configuration for the in table or out table. *See* ’388 patent at 16:5–64 (discussing the uses for the out table but not the implementation of the out table), 16:34–38 (same for the in table), Fig. 6 (in table and out table drawing), 15:33–35 (describing figure 6 as a block diagram illustrating an “exemplary implementation”). Therefore, the claims of the ’388 patent are more like those in *Intellectual Ventures I LLC v. Capital One Financial Corp.*, 850 F.3d 1332 (Fed. Cir. 2017). The claims there identified “specific data structures and objects”; the court found that those “data structures add a degree of particularity to the claims,” but the court ultimately found that recitation of the data structures did not change the court’s conclusion that the claims were directed to an abstract idea because the data structures were “at bottom, broadly defined labels for generic data types.” *Id.* at 1340–1341.

Moreover, the steps of the claims are described mainly in functional terms. For example, claim 1 recites “establishing a communication network,” “controlling the operation,” “generating command data,” “transmitting the command data,” “receiving a signal,” “storing the status,” and “providing a real-time status update.” Those steps describe functional results but do not “sufficiently describe how to achieve th[o]se results in a non-abstract way.” *Two-Way Media*, 874 F.3d at 1337; *Cap. One Fin. Corp.*, 850 F.3d at 1342 (“[T]he claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it.”). Therefore, the claims are akin to the claims that were found to be patent-ineligible in *Universal Secure Registry*, which generically provided “for the collection of biometric information to generate a first authentication information, and then authenticating a user using both the biometric-information-derived first authentication and a second authentication information” but lacked a “description of a specific technical solution by which the biometric information is generated, or by which the authentication information is transmitted.” 10 F.4th at 1354–55.

Second, I disagree with ScentAir that the specification establishes that the claims offer a technical improvement in computing capacity. ScentAir characterizes the specification as teaching that the use of the out table allows the scent delivery devices to be designed with less computing power because the processing for their operation can be centralized in the out table. Although the specification suggests that there are benefits to centralizing the processing of the instructions for the devices, the specification does not attribute those benefits to any specific capacity associated with or any implementation of the out table. *See, e.g.*, ’388 patent at 16:15–23, 16:41–58. Thus, while central processing may offer benefits for scent delivery, the specification does not suggest that centralization requires anything more than a generic computer executing generic computer functionality.



Similarly, ScentAir argues that the specification discloses benefits of using an in table. As with the out table, the specification speaks to the benefits of recording the real-time status of the scent delivery devices generally but does not identify any particular implementation of the in table. *See, e.g.*, '388 patent at 18:62–67, 25:30–33. Processing and recording data are generic computer functions that can be executed using any computer. *See Alice*, 573 U.S. at 225; *Accenture*, 728 F.3d at 1344; *Symantec*, 838 F.3d at 1318.

ScentAir cites statements by the examiner in the *ex parte* reexamination proceeding identifying the benefits of the claimed structure, i.e., a central controller with one or more master schedules and a data structure with an in table and out table. Dkt. No. 381-1 at 277. Those statements, however, were made in the context of a previous rejection under 35 U.S.C. § 102. As a result, the examiner was not identifying benefits attributable to specific improvements in computer capabilities. Rather, the benefits identified by the examiner are attributable to the fact that the claims use generic computer functionality to implement an abstract idea. *See id.* at 280 (identifying efficiency and scalability as benefits of using a central controller and less need for processing and local data storage as benefits of the in and out table structure). Benefits that flow from performing an abstract idea in conjunction with a well-known data structure do not support the argument that the claims are directed to a non-abstract improvement in computer functionality. *See BSG Tech.*, 899 F.3d at 1287–88.

Regarding the expert testimony, ScentAir cites testimony about the benefits of separating incoming and outgoing data into separate tables. Dkt. No. 388 at 1 (benefits include avoiding NULL data, data inconsistencies, garbage data, and deadlocking). The cited testimony describes the benefits of using two tables and then concludes that it would not make sense to aggregate the two sets of data into one table but rather that separating the data “into two separate tables is a

design decision consistent with normal database design practices.” Dkt. No. 381, Exh. 6 at ¶ 15; *see also id.* at ¶ 18 (performance benefits from separating data into tables are well-known). ScentAir characterizes this expert testimony as explicitly linking “the structure and design of the ’388 Patent claims to numerous, significant technical benefits.” Dkt. No. 388 at 4–5. While ScentAir might be right that a two-table structure offers technical benefits, the question is whether “the claims are directed to an improvement of an existing technology.” *Enfish*, 822 F.3d at 1337. All that the cited testimony establishes is that separating two data sets into two tables offers known benefits, not that the claims offer an improvement over an existing technology. This conclusion is consistent with ScentAir’s admission that it “has never contended that the ’388 patent claims recite tables that, when isolated, have an ‘inventive characteristic.’” Dkt. No. 388 at 9.

Finally, ScentAir argues that it is not the data structures in isolation that render the claims patent-eligible but the fact that the structures are used in combination with the scent delivery devices to separate the functions of status detection and control. For this proposition, ScentAir cites *Data Engine*. The claims in *Data Engine*, however, are unlike the claims here. There, the claims recited “a specific interface and implementation for navigating complex three-dimensional spreadsheets using techniques unique to computers,” including requirements regarding the display of information, the use of a user-settable identifying character, a way to navigate through selection, and a formula for operating across multiple spreadsheet pages. 906 F.3d at 1008–09. Here, the claims offer no more detail than to identify the data structures as “tables.” As the Federal Circuit has consistently held, “claims are not saved from abstraction merely because they recite components more specific than a generic computer.” *BSG Tech.*, 899 F.3d at 1286. Without any more detail, such as the level of detail in *Data Engine*, the claims recite “no more than routine steps involving generic computer components and conventional computer data processing

activities to accomplish the well-known concept” of operating devices. *See Intell. Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1329 (Fed. Cir. 2017).

In sum, the claims are directed to an abstract idea under *Alice* step one. That the claims are limited to the specific field of scent delivery does not change any of the above analysis. *See SAP*, 898 F.3d at 1169. I next turn to *Alice* step two.

## **ii. Alice Step Two**

Step two of the *Alice* test for patent eligibility requires the court to determine whether the claims at issue contain an “inventive concept.” In a case involving computer- and software-based technology, such as this one, the court looks to whether the relevant implementation consists of more than generic computers and networking components executing “well-understood, routine, [and] conventional activities previously known to the industry.” *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014).

Prolitec originally moved for judgment on the pleadings that the ’388 patent is invalid under section 101. I denied that motion because (1) nothing in the specification suggested that the implementation was well understood, routine, or conventional and (2) ScentAir had alleged otherwise, and I was required to accept that allegation as true. *See* Dkt. No. 347. On summary judgment, Prolitec again argues that the claims lack an inventive concept because the aspect of the invention that ScentAir identifies as inventive—the in table and out table—is implemented with generic technology in a conventional manner. Prolitec further argues that ScentAir has failed to present any evidence suggesting otherwise.

“The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact. Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and

convincing evidence.” *Berkheimer*, 881 F.3d at 1368. Therefore, Prolitec bears the burden of proof on the issue of whether there is an inventive concept. Although Prolitec identifies record evidence suggesting that the in table and out table are generic database structures, Prolitec fails to identify any record evidence in its opening brief suggesting that it was well understood, routine, and conventional to use a database to control the operation of devices.

For its part, ScentAir has offered evidence through its technical expert, Robert Dezmelyk, that the use of an out table to store instructions “before the commands to each scent delivery device are generated” constitutes a “technological benefit” that “provides significant run time performance enhancements for the central controller.” Dkt. No. 388, Exh. D at ¶ 37. For example, he stated in his report that “centralizing the instructions for each scent delivery device in a table provides significant run time performance enhancements for the central controller,” a technological improvement “that depends directly on the unique system architecture claimed by the ’388 patent.” *Id.* at ¶ 38. Mr. Dezmelyk added that the use of an in table to store status data “provides a significant improvement in the run time performance of related software which is using the real-time status data as an input.” *Id.* at ¶ 41. The claimed structure, he explained, is a technological improvement that operates faster, generates less disk traffic, “can reduce the cost of the processor and memory used in the central controller, and reduce the power consumption of the central controller during query operations” as compared with more conventional systems. *Id.* at ¶¶ 41–42.

In its effort to rebut ScentAir’s evidence as to step two of the section 101 inquiry, Prolitec offers a number of reasons for rejecting the evidence offered by ScentAir’s technical expert. But Prolitec’s arguments underscore that the dispute over whether the two-table aspect of the claimed invention was well understood, routine, and conventional requires resolution of a question of fact.

On the record before me, I cannot conclude that Prolitec has shown by clear and convincing evidence that it was well understood, routine, or conventional to use a two-table database structure to control the claimed devices. *See Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019).<sup>1</sup>

Because Prolitec has not made a sufficient showing to justify summary judgment based on its contention that the '388 patent lacks an inventive concept under *Alice* step two, I will deny Prolitec's motion to hold the asserted claims of the '388 patent patent-ineligible under 35 U.S.C. § 101. ScentAir did not cross-move for summary judgment on this issue, so the fact question whether the '388 patent lacks an inventive concept under *Alice* step two remains unresolved and will be sent to the jury if a jury-submissible factual dispute remains at the close of the evidence.

#### **B. Summary Judgment Regarding the On-Sale Bar Rule**

The parties have cross-moved for summary judgment on Prolitec's defense that the asserted claims are invalid based on the on-sale bar rule. *See* Dkt. No. 379 at 14–19; Dkt. No. 383 at 18–28. Under the on-sale bar rule, a patent is invalid if the patented invention was “on sale” prior to the “critical date” of the patent application for the invention, i.e., more than one year before the patent application was filed. *See* 35 U.S.C. § 102(a), (b)(1).<sup>2</sup>

The on-sale bar rule applies when two conditions are satisfied. First, “the product must be the subject of a commercial offer for sale.” *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998).

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<sup>1</sup> Prolitec notes that the specification does not address the advantages of the claimed two-table architecture. Dkt. No. 383 at 16. But it is not necessary for the specification or the claims to “expressly list all the reasons why [the] claimed structure is unconventional,” as long as “what makes the claims inventive is recited by the claims.” *Cellspin*, 927 F.3d at 1317. And here, the use of the two-table structure is recited in each of the claims of the '388 patent.

<sup>2</sup> The application that issued as the '388 patent was a continuation of two successive applications, the first of which was filed on July 10, 2013. The critical date for purposes of the on-sale bar is therefore July 10, 2012.

Second, the invention must be ready for patenting. The second condition may be satisfied in at least two ways: “by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” *Id.* at 67–68.

Prolitec explains that prior to filing the patent application that eventually issued as the ’388 patent, ScentAir collaborated with the Barclays Center, a large sports and entertainment facility in Brooklyn, New York, to develop a system of remotely operated scent delivery devices. The development work on that system was recorded in various technical documents. Citing testimony from the inventors listed on the ’388 patent, Prolitec argues that the system developed for the Barclays Center is the invention that was disclosed in the ’388 patent. Because ScentAir leased the system to the Barclays Center, Prolitec argues that the patented invention was “on sale” more than one year before the patent application was filed, and that the ’388 patent is therefore invalid.

ScentAir argues that it is entitled to summary judgment that there is no on-sale bar in this case, because Prolitec has not shown that there was a sale of the patented invention prior to the critical date for the ’388 patent. ScentAir first posits that Prolitec’s on-sale bar theory fails because the date that Prolitec points to as the date of sale preceded the development of the patented invention. ScentAir also argues that the court should grant summary judgment of no on-sale bar because Prolitec has not shown that each element of the claims is found in the design drawings and materials for the Barclays Center system; in particular, ScentAir argues, Prolitec has not shown that design documents establish that the “command data” limitation was conceived of prior to the critical date. At the very least, according to ScentAir, there are genuine disputed facts regarding Prolitec’s on-sale bar defense, so Prolitec is not entitled to summary judgment sustaining that defense and invalidating the ’388 patent.

Beginning with whether there was a sale of the patented invention, the parties dispute whether this case is governed by *Sparton Corp. v. United States*, 399 F.3d 1321 (Fed. Cir. 2005), or *August Technology Corp. v. Camtek, Ltd.*, 655 F.3d 1278 (Fed. Cir. 2011). In *Sparton*, the Federal Circuit held that an invention was not the subject of an offer to sell because the design proposed in the contract was not the design that was ultimately patented. 399 F.3d at 1323. ScentAir argues that *Sparton* governs here because the sale date preceded the date on which Prolitec argues the invention was ready for patenting. Therefore, ScentAir argues, Prolitec has not shown that ScentAir offered to sell the system that embodied the patented invention.

In *August Technology*, the court explained that an invention need not be ready for patenting at the time of the offer for sale, and that if conception occurs prior to the critical date, the prior sale will become an offer for sale of the invention as of the conception date.” 655 F.3d at 1289. Citing *Robotic Vision Systems v. View Engineering, Inc.*, 249 F.3d 1307 (Fed. Cir. 2001), the court explained that the on-sale bar is “triggered by a prior commercial offer for sale and a subsequent enabling disclosure that demonstrated that the invention was ready for patenting prior to the critical date.” 655 F.3d at 1289. Thus, even if the offer for sale precedes the date of conception of the invention, “if the offer for sale is extended and remains open a subsequent conception will cause it to become an offer for sale of the invention as of the conception date.” *Id.* Prolitec argues that *August Technology* governs this case because ScentAir developed the patented invention pursuant to ScentAir’s agreement with the Barclays Center and, importantly, because the invention was conceived and disclosed to the purchaser prior to the critical date for the ’388 patent.

The key difference between *Sparton* and *August Technology* is what the seller communicated to the purchaser prior to the critical date; specifically, whether the seller communicated to the purchaser more than a year before the filing date of the patent that the sale

was for the patented invention. In *Sparton*, the court emphasized that it was undisputed that the design described in the contract was not the patented invention. 399 F.3d at 1323. The court went on to explain that although the patented invention was embodied in the product that was eventually delivered to the purchaser, there was no evidence that prior to the critical date the patentee communicated to the purchaser that the product that would be delivered would be different from the product that was described in the contract. *Id.* Accordingly, there was nothing in the record to suggest that prior to the critical date the seller made an offer to sell the patented invention. *Id.* In contrast, in *August Technology*, the court concluded that a remand was necessary to determine whether the patentee had conceived of the patented invention prior to the critical date. *August Tech.*, 655 F.3d at 1290. The critical question that remained for decision on remand was “whether [the patentee] had conceived of the [invention] prior to the critical date.” *Id.*; *see also IGT v. Global Gaming Tech., Inc.*, Nos. 98-1246 & 98-1390, 1999 WL 445672 (Fed. Cir. 1999) (“[T]he on-sale bar applies if an invention that is offered for sale at a time when it is not ‘ready for patenting’ becomes ‘ready for patenting’ prior to the critical date.”).

Focusing on whether, prior to the critical date, the seller has communicated to the purchaser that the purchaser will be receiving the patented invention is consistent with the purpose of the on-sale bar doctrine, which is to limit the extent to which the inventor can commercially exploit his invention prior to applying for a patent. *See Pfaff*, 525 U.S. at 64–66. If the inventor discloses to the purchaser that the product the purchaser has bought embodies the invention and does so after the sale but prior to the critical date, the inventor has commercialized his invention just as much as if he had disclosed the invention on the date of the sale. In both cases, the inventor will have commercialized his invention more than one year before seeking to patent it. *See id.* (“reluctance to allow an inventor to remove existing knowledge from public use undergirds the on-sale bar”).



Accordingly, I reject ScentAir's argument that summary judgment of no on-sale bar is warranted simply because the date of conception was after the date of the offer for sale.<sup>3</sup>

On March 21, 2012, ScentAir executed a contract to provide a ScentAir scenting system for the Barclays Center. According to Prolitec, the system that ScentAir designed for the Barclays Center embodied all the features recited in the limitations of the claims of the '388 patent, and those features were incorporated in the design documents for the system by July 6, 2012. *See* Dkt. No. 383, Exh. 6 (design document dated July 6, 2012). That date was several days before the critical date of July 12, 2012, which was more than one year before the first application leading to the '388 patent was filed. ScentAir does not contend that those documents were not shared with the Barclays Center, which would make this case akin to *Sparton*. Rather, ScentAir contends that those documents do not contain the patented invention because further design work was completed after July 6, 2012, and up until the system was installed at the Barclays Center in September 2012 when the Barclays Center opened. Dkt. No. 379 at 16. Therefore, the dispute articulated in the summary judgment briefing is whether those documents sufficiently disclosed the patented invention such that the patented invention was communicated to the Barclays Center prior to the critical date. That is a question of fact that cannot be resolved on summary judgment. Therefore, the question whether Prolitec has proved that the first condition of *Pfaff* is met will be sent to the jury if a jury-submissible factual dispute remains as to that issue at the close of the evidence.

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<sup>3</sup> ScentAir argues that *August Technology* is distinguishable from this case because the offer for sale in *August Technology* was "open," whereas the offer in this case was not. That, however, was not the rationale of the Federal Circuit's decision in *August Technology*. The court referred to the "open" nature of the sale by contrasting it with an offer that has been retracted before the date of conception. When an offer for sale "is extended and remains open," the court explained, "a subsequent conception will cause it to become an offer for sale of the invention as of the conception date." 655 F.3d at 1289.

ScentAir’s secondary argument is that its agreement with the Barclays Center was not a sale but rather was a contract to provide services in the future and therefore that summary judgment in its favor is appropriate on that ground. I disagree. First, ScentAir admits that the agreement gave the Barclays Center a time-limited right to use ScentAir’s equipment—i.e., it granted a lease to the use of the equipment. Dkt. No. 388 at 18. And the Federal Circuit has made it clear that a lease can trigger the on-sale bar rule. *See Minton v. Nat’l Ass’n of Sec. Dealers, Inc.*, 336 F.3d 1373, 1378 (Fed. Cir. 2003). Second, the fact that the lease was set to begin in the future does not prevent a finding of an on-sale bar. As Prolitec notes, *Pfaff* contemplates a future conveyance of the product. *Pfaff* requires only that there be an *offer* for sale; it does not require that the sale have been executed. And *Pfaff* allows evidence of enabling drawings to serve as proof that the invention was ready for patenting; it does not require proof that the invention was actually reduced to practice. *See* 525 U.S. at 67. In sum, ScentAir has not established that Prolitec will be unable to prove that there was an offer for sale of the patented invention.

With regard to ScentAir’s argument that Prolitec has not shown that the command data limitation was disclosed in the Barclays Center documents, there is also a genuine dispute of fact. ScentAir argues that Prolitec’s technical expert, Dr. Cory Plock, has failed to identify what features constitute the claimed command data. Dr. Plock’s report states that “the out table ‘consists of the data needed to command the control program.’” Dkt. No. 381, Exh. 4 at ¶ 90 (citing ScentAir\_00042351). Whether that testimony is sufficient to persuade the fact-finder that the command data limitation was disclosed is a question of fact that cannot be resolved on summary judgment. Therefore, ScentAir has not established that Prolitec will be unable to show that prior to the critical date ScentAir had prepared documentation sufficient to enable a person skilled in the art to practice the invention. And given that there is a genuine dispute of fact as to whether at

least the command data limitation was disclosed, Prolitec has not established that it is entitled to summary judgment of invalidity under the on-sale bar doctrine. Accordingly, I will deny both parties' motions for summary judgment regarding the on-sale bar doctrine.

### **C. Summary Judgment Regarding Noninfringement**

Prolitec argues that it is entitled to summary judgment of noninfringement for two reasons. First, Prolitec argues that the claims require that the “central controller” generate command data, but that the command data in the accused system is generated by Prolitec’s scent-producing Aera device, not by the central controller, which in Prolitec’s system is the Ayla cloud. Specifically, Prolitec explains that the Ayla cloud in the accused system merely reformats the schedule generated by the user on a mobile device before it transmits the schedule data to the Aera device. Prolitec contends that the Aera device contains the firmware that generates the command data from the schedule data. Dkt. No. 383 at 28–34.

ScentAir disagrees that the Ayla cloud simply “reformats” the schedule data. Instead, ScentAir explains that the Ayla cloud merges the schedule data with instruction data, creates commands in pseudocode, and converts those commands into a transferable format. ScentAir further explains that the Aera device has a command interpreter, which processes the command data from the Ayla cloud and controls the operation of the Aera device. ScentAir acknowledges that some processing of the command data is done on the Aera device, but argues that there is a dispute of fact as to whether the data from the Ayla cloud is configured such that it is the claimed command data. Dkt. No. 388 at 25–33.

In supplemental claim construction proceedings, I construed the phrase “generating command data that is configured to control the operation of a networked scent delivery device” to mean “generating, by the central controller, command data that is configured to control the

operation of a networked scent delivery device, including turning the device on and off.” Dkt. No. 349 at 1. Based on that construction, I agree with ScentAir that there is a genuine dispute of material fact as to whether the data sent from the Ayla cloud to the Aera device is configured to control the operation of the device, including turning the device on and off—i.e., whether the transmitted data is command data.<sup>4</sup> As one example, Dr. Plock takes the position that the “data commands” received by the device carry TLV “payloads,”<sup>5</sup> which Dr. Plock asserts are just schedule data, not commands (i.e., not instructions or executable code). Dkt. No. 383, Exh. 9 at ¶ 154. In contrast, Mr. Dezmelyk states that in his view the Ayla cloud uses the schedule data to generate command data that is then transmitted to the Aera device. *E.g.*, Dkt. No. 388, Exh. C at ¶ 33. Therefore, Mr. Dezmelyk concludes that the TLV message includes both schedule data and additional commands. Dkt. No. 388, Exh. E at 194:18–24. I find the disagreement over whether the schedule data is sufficiently transformed by the Ayla cloud that it can be considered command data to be a battle of the experts that should be left to the jury to resolve.

I also disagree with Prolitec’s argument that ScentAir’s theory of infringement renders the claims indefinite. Prolitec argues that under ScentAir’s theory, “the schedule at any point in the accused system may qualify as ‘command data’ with infringement turning on arbitrary decisions as to where in the system command data is generated.” Dkt. No. 394 at 16. ScentAir’s theory, however, is not that the schedule data at some point qualifies as command data; instead, ScentAir contends that the Ayla cloud transforms the schedule data into command data. Therefore, at what

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<sup>4</sup> Prolitec contends, Dkt. No. 393 at 15, that the material at pages 28–29 of ScentAir’s opposition brief consists of nothing more than attorney argument. That description, however, ignores the preceding three pages of ScentAir’s brief, which contain numerous record cites pointing to disputes of fact. *See* Dkt. No. 388 at 26–28.

<sup>5</sup> “TLV” refers to “tag, length, and value.” TLV constitutes a data structure for a message containing an identifying tag, the length of the message in bytes, and a value. Dkt. No. 383, Exh. 11 at ¶ 39 n.5.

point the data is no longer considered schedule data but has been sufficiently transformed such that it constitutes command data is a question of fact, not an arbitrary determination. Because there is a genuine dispute of fact as to whether the Ayla cloud, as opposed to the Aera device, generates command data, I reject Prolitec’s first theory for summary judgment of noninfringement.

Prolitec’s second noninfringement theory is that ScentAir impermissibly identifies the same element in Prolitec’s accused system as meeting both the master schedule and the out-table claim limitations. Prolitec argues that as a matter of claim construction those limitations must be met by distinct elements and thus that ScentAir has insufficient evidence to prove its infringement case. ScentAir disagrees, arguing that the master schedule does not need to be distinct from the out table.

The flaw in Prolitec’s argument is that Prolitec attempts to compare a data *set* (master schedule) to a data *structure* (out table) that holds one or more data sets. Based on the claim language and the specification, I understand the master schedule limitation to be referring to a data set. *See* ’388 patent at 16:39–50; Dkt. No. 119. In contrast, I understand the out-table limitation to be referring to a data structure that holds one or more data sets. *See* ’388 patent at 16:7–8. The claims require that the out table hold the instructions; therefore, I understand the instructions limitation to refer to a second data set. At the oral argument, ScentAir explained that its infringement theory is that (1) the accused system has a data structure (referred to as the “schedules table”) that meets the out-table limitation and (2) that data structure holds both the instructions data set and the master schedule data set. *See* Dkt. No. 383, Exh. 14 at ¶ 104; Dkt. No. 388 at 30.<sup>6</sup> ScentAir also clarified that the data set in the accused system that ScentAir has identified as the

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<sup>6</sup> Separately, Prolitec argues that ScentAir’s interpretation of the relevant source code is unsupported by the testimony of ScentAir’s expert. Whether ScentAir’s interpretation of the source code is adequately supported by the evidence is a question of fact for the jury to resolve.

instructions data set is distinct from the data set it has identified as the master schedule data set, although those two data sets contain some overlapping data.

As noted, the claims require that the out-table data structure contain the instructions data set. But nothing in the patent prohibits the out-table data structure from containing the master schedule data set in addition to the instructions data set. In fact, the specification does not identify where the master schedule data set is stored beyond disclosing that it can be stored in the central controller or can be accessible through the central controller, and Figure 6 of the specification shows that the out table is stored within the central controller. '388 patent at 4:61–63 & Fig. 6. Given that the patent does not specifically identify where the master schedule data set is stored, requiring the master schedule data set to be stored somewhere other than in the out table would impermissibly read a new limitation into the claims. *See Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 906 (Fed. Cir. 2005). Accordingly, I reject Prolitec's argument that ScentAir's infringement theory fails as a matter of claim construction.

To the extent Prolitec's position is that the master schedule data set cannot contain any data that overlaps with the instructions data set, I disagree. The fact that the claims contain both a master schedule limitation and an instructions limitation implies that those two limitations are distinct components of the patented invention. *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010); *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000). But nothing in the specification prohibits those two data sets from containing overlapping data. To the contrary, the specification acknowledges that “generating command data may include generating a set of machine-specific instructions that incorporates all scheduled events.” '388 patent at 7:41–44. The specification also explains that “master schedule data may then be processed by the schedule control section . . . to

generate/update non-conflicting machine-specific instruction tables . . . [that] are a list of grouping of instructions with corresponding execution time information for a specific machine.” *Id.* at 16:44–52. Therefore, I reject Prolitec’s second theory for summary judgment of noninfringement. *See Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231 (Fed. Cir. 2011).

#### **D. Summary Judgment of No Anticipation or Obviousness**

ScentAir has moved for summary judgment of no invalidity under 35 U.S.C. § 102 or § 103. As an initial matter, ScentAir presents its invalidity challenge as turning on a claim construction dispute. Dkt. No. 379 at 7–14. Beyond that, ScentAir contends that the testimony of Prolitec’s technical expert, Dr. Plock, should be excluded under *Daubert* and Federal Rule of Evidence 702, on the ground that his opinions are legally insufficient to support a finding of anticipation or obviousness. *Id.* at 19–34. In the absence of Dr. Plock’s testimony, ScentAir argues, there is no evidence to support Prolitec’s theory that the claims of the ’388 patent are invalid for either anticipation or obviousness.

##### **1. Claim Construction**

As a matter of claim construction, ScentAir argues that the in-table and out-table limitations, which are found in all the claims of the ’388 patent, cannot be satisfied by the same table. For that reason, ScentAir contends that Prolitec’s anticipation and obviousness theories are flawed because, in ScentAir’s view, Prolitec’s position on those issues is based on the theory that a single table can serve as both the in table and the out table.

In its response, Prolitec agrees that the in-table and out-table limitations cannot be met by the same element in the accused system. Dkt. No. 387 at 1, 6–7. Thus, ScentAir’s contention that the in table and the out table must be separate tables is undisputed. Because there is no dispute as to that claim construction issue, and the agreed-upon claim construction is consistent with the

specification, *see, e.g.*, '388 patent at Fig. 6 (depicting the in table as a distinct structure from the out table), I adopt that claim construction.

## **2. Prolitec's Theories of Anticipation and Obviousness**

ScentAir argues that under a construction in which the two tables must be distinct, Prolitec has no viable anticipation or obviousness theories. In its opposition brief, Prolitec responds by identifying what it contends are three viable anticipation theories: (1) that one of Prolitec's principal prior art references (Hamada)<sup>7</sup> discloses two distinct tables, one of which serves as the in table and the other of which serves as the out table, *see* Dkt. No. 387 at 7; Dkt. No. 381, Exh. 6 at ¶ 106; (2) that the Hamada reference includes two distinct sub-tables within one larger table and that the two sub-tables correspond to the in table and the out table, *see* Dkt. No. 387 at 3, 7; Dkt. No. 381, Exh. 6 at ¶ 105; and (3) that the invention is disclosed in the Hamada and Roemburg prior art references<sup>8</sup> under the theory of inherency, *see* Dkt. No. 387 at 3, 9 n.2, 29–32; Dkt. No. 381, Exh. 4 at ¶¶ 152–58.

As for obviousness, Prolitec argues that the claims would have been obvious in light of some 24 prior art combinations, resulting from modifying either the Hamada or the Van Roemburg reference with one or more of five specified secondary references. Dkt. No. 387 at 3. Prolitec separately argues that the asserted claims are invalid because a person of ordinary skill in the art would have found it obvious to modify the Hamada reference to use two separate tables for the in table and the out table. *See* Dkt. No. 387 at 3; Dkt. No. 381, Exh. 6 at ¶¶ 119–25.

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<sup>7</sup> Hamada is Japanese Patent Publication No. JP2009-217641, an English translation of which is found at Dkt. No. 381, Exh. 8.

<sup>8</sup> The Van Roemburg reference is U.S. Patent Application Publication No. US 2011/0089260. Dkt. No. 381, Exh. 10.



In its reply brief, ScentAir argues that Prolitec abandoned its “two distinct tables” theory in the course of Dr. Plock’s deposition testimony. ScentAir points out that Dr. Plock did not mention that theory when he was asked at his deposition about how he regarded Hamada as disclosing the two-table structure. *See* Dkt. No. 394 at 3–4 (citing Dr. Plock’s deposition testimony referring to the two tables as both being described in Figure 4 of Hamada, rather than in Figures 3 and 4, as indicated in Dr. Plock’s initial expert report). However, Dr. Plock did not explicitly disclaim the theory that Hamada discloses two tables that perform essentially the same function as the claimed in table and out table. To the extent ScentAir regards Dr. Plock’s deposition testimony as inconsistent with his report, ScentAir can cross-examine him at trial using his deposition testimony. But Dr. Plock’s failure to refer to the two-table theory (and Figures 3 and 4 of Hamada) during his deposition is not a sufficient ground to exclude that theory, which was set forth in his expert report.

As to Prolitec’s sub-table theory, ScentAir argues that it is new, as it was not raised in Dr. Plock’s initial expert report. Dkt. No. 394 at 1–3. However, I previously rejected ScentAir’s request to strike the portion of Dr. Plock’s reply report in which he explained that the in-table and out-table functions could be performed by a single table that has been split by partitioning. *See* Dkt. No. 371 at 1–2. Although Dr. Plock did not explicitly refer to that theory as a “sub-table” theory, the idea of partitioning one table into two tables as disclosed in Dr. Plock’s report is consistent with what Prolitec describes as its “sub-table” theory. *See* Dkt. No. 394 at 2 (discussing ScentAir’s motion to strike). Accordingly, I decline to reconsider my previous decision regarding the motion to strike.

With respect to the inherency theory, Dr. Plock stated that because Hamada provided for acknowledgement signals, which are a form of status reporting, to be sent to the central controller

upon the receipt of instructions, Hamada inherently disclosed the in-table limitation of the claims. Dr. Plock's report also alleges that the Van Roemburg reference inherently includes an out table of the sort claimed in the '388 patent. *See* Dkt. No. 381, Exh. 4 at ¶¶ 295, 304. The inherency theory is set forth in Dr. Plock's reports with facial sufficiency to present at least a jury question as to whether it is a valid theory of invalidity.

As to obviousness, Dr. Plock's expert reports contain lengthy descriptions of how, in his view, various prior art references disclose each of the limitations of the claims of the '388 patent and why there was a motivation to combine those references in ways that render the '388 patent claims obvious. ScentAir's challenge to Prolitec's obviousness case rests principally on its argument that Dr. Plock's opinions should be excluded, an issue to which I now turn.

### **3. ScentAir's *Daubert* challenge to Dr. Plock's Evidence**

As the central element of its challenge to Prolitec's invalidity case, ScentAir seeks to exclude Dr. Plock's testimony for a variety of reasons, including ScentAir's contention that Dr. Plock's reports relied on improper hindsight and improperly selected references to satisfy various limitations without an adequate showing of a motivation to combine those references. Dkt. No. 379 at 19–34. As a consequence of the asserted infirmities in Dr. Plock's reports, ScentAir argues that I should exclude his opinion testimony, which would require me to grant summary judgment of no anticipation and no obviousness. *Id.* at 20. Prolitec responds that ScentAir's challenges go to the weight of Dr. Plock's opinions, not their admissibility, and that ScentAir's motion to exclude his testimony (and to grant summary judgment of no anticipation and no obviousness) should be denied. Dkt. No. 387 at 19–33. I agree with Prolitec and deny ScentAir's motion to exclude Dr. Plock's testimony as well as ScentAir's motion for summary judgment on those issues for the following reasons.

ScentAir challenges Dr. Plock's opinions under Federal Rule of Evidence 702 and the *Daubert* standard. When evaluating an expert's opinions under Rule 702, a court must consider the expert's qualifications, the reliability of the expert's opinions, and the fit of those opinions to the issues in the case. *Schneider ex rel. Est. of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003). "Qualification refers to the requirement that the witness possess specialized expertise." *Id.* Reliability requires a determination as to the opinion's scientific validity. *Id.* (explaining that the expert's opinion "must be based on the 'methods and procedures of science' rather than on 'subjective belief or unsupported speculation'" (citation omitted)). Fit requires the expert's testimony to be relevant for the purposes of the case and to assist the trier of fact. *Id.* ScentAir has not challenged Dr. Plock's qualifications as an expert or otherwise suggested that Dr. Plock lacks specialized expertise. ScentAir has also not challenged the methods and procedures Dr. Plock has applied. Therefore, I consider whether Dr. Plock's opinions are relevant and will assist the jury.

ScentAir focuses its challenges on paragraphs 144, 148–60, and 264–332 of Dr. Plock's opening report and paragraphs 69, 119–125, and 132–33 of his reply report. Dkt. No. 383 at 20 n.4, 31 n.8. I find those opinions of Dr. Plock to be admissible under *Daubert*. Taking Dr. Plock's first combination as an example, he begins by identifying claim limitations that may be missing from the primary reference. Dkt. No. 381, Exh. 4 at ¶ 265. He then identifies where each possibly missing limitation can be found in the prior art. *E.g., id.* at ¶¶ 266–67. After that, Dr. Plock points to a reason that it would have been obvious to combine the secondary reference with the primary reference. *E.g., id.* at ¶ 268. Dr. Plock also identifies reasons that a person of ordinary skill in the art would have been motivated to combine the references and would have had an expectation of

success from employing the resulting combination. *E.g., id.* at ¶¶ 289–90; *see also id.* at ¶¶ 268, 271, 274, 276, 278, 280, 283.

ScentAir’s objections to Dr. Plock’s testimony do not justify excluding Dr. Plock’s opinions. ScentAir does not argue that Dr. Plock applied the wrong legal standards governing anticipation and obviousness.<sup>9</sup> Rather, ScentAir points to reasons that it believes Dr. Plock’s analysis is insufficiently detailed to satisfy Prolitec’s burden to prove invalidity. ScentAir complains that Dr. Plock’s opinions are too “generic,” that they fail “to explain deficiencies in any of the references,” and that they merely “fill[] in holes he needs to achieve an opinion that the claims are sufficient.” Dkt. No. 383 at 24–25; *see also, e.g., id.* at 25 (criticizing Dr. Plock for failing “to provide any explanation [about] what signal status features have to do with power consumption benefits” or to “explain why a POSITA would look to decrease power consumption” in the Hamada reference), 33 (identifying admissions from Dr. Plock’s deposition that undermine his inherency opinions); Dkt. No. 393 at 15 (“Under the more stringent clear and convincing standard, Dr. Plock’s conclusory assertions that unrelated, generic benefits could be achieved will not be enough to establish a motivation to combine any set of references.”).<sup>10</sup>

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<sup>9</sup> In its opening brief, ScentAir suggests that Dr. Plock misapplied the principles of inherency in patent law by citing to a second reference to support his theory. Prolitec responds that it can be appropriate to cite additional references when establishing what properties are inherent. ScentAir offers no response to that argument in its reply brief. Therefore, I find that Dr. Plock’s opinion was not based on a legal error. *See Cont’l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). As with Dr. Plock’s other theories, Dr. Plock’s opinions are not based on a misapprehension of the law; the question is simply whether his analysis is factually sufficient to warrant submitting the issues of invalidity to the jury.

<sup>10</sup> Contrary to ScentAir’s suggestion, a motivation to combine references can derive from “something in the prior art as a whole [that suggests] the desirability, and thus the obviousness of the claimed invention.” *Honeywell Int’l, Inc. v. 3G Licensing, S.A.*, 124 F.3d 1345, 1355 (Fed. Cir. 2025); *In re Fulton*, 391 F.3d 1195 1200 (Fed. Cir. 2004); *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992); *Lindemann Maschinenfabrik GmbH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1462 (Fed. Cir. 1984).

Those complaints about Dr. Plock's reports do not render the reports inadmissible. ScentAir can address each purported deficiency in Dr. Plock's opinions on cross-examination of Dr. Plock or by introducing its own contrary evidence. *See Nox Med. EHT v. Natus Neurology Inc.*, No. CV 15-709, 2018 WL 845635, at \*11 (D. Del. Feb. 13, 2018) ("failure of proof arguments" can be addressed during cross-examination).

ScentAir's authorities do not suggest otherwise. As Prolitec points out, among ScentAir's numerous cited authorities, only two cases address whether expert testimony was admissible under the *Daubert* standard or Rule 26; the rest address whether the expert's testimony was factually sufficient to support a finding that the party had met its evidentiary burden at trial. And Dr. Plock's opinions are distinguishable from ScentAir's two relevant cases. In both of ScentAir's cases, the expert failed to offer an opinion on the motivation to combine. *See Acceleration Bay, LLC v. Amazon Web Servs., Inc.*, No. CV 22-904, 2024 WL 4164876, at \*19 (D. Del. Sept. 12, 2024), and *Innogenetics, N.V. v. Abbott Lab 'ys*, 512 F.3d 1363, 1374 (Fed. Cir. 2008). In this case, Dr. Plock has offered an analysis of the motivation to combine by pointing to the benefits that would flow from the proposed combinations. That analysis is sufficient to render Dr. Plock's opinions admissible. *E.g.*, Dkt. No. 381, Exh. 4 at ¶ 268.

In its *Daubert* motion, ScentAir also argues that Dr. Plock's report violated Federal Rule of Civil Procedure 26 because it failed to identify specific combinations of references. Prolitec responds by explaining that it is relying on 24 combinations of prior art references, and specifically identifying those combinations. Dkt. 387 at 20 n.10, 21 n.11. ScentAir replies that Dr. Plock's report is phrased in a way that appears to cover more than those 24 combinations. To the extent that ScentAir's characterization of Dr. Plock's report is accurate, Prolitec will be limited to the 24 combinations it has identified in its opposition briefing.

Because ScentAir has not shown that Prolitec lacks a viable anticipation or obviousness theory, I will deny ScentAir's motion for summary judgment regarding anticipation and obviousness. *See Anderson*, 477 U.S. at 255 ("Neither do we suggest that . . . the trial court may not deny summary judgment in a case where there is reason to believe that the better course would be to proceed to a full trial.").

#### **E. Summary Judgment Regarding Inequitable Conduct**

ScentAir argues that summary judgment is appropriate as to Prolitec's proposed defense of inequitable conduct because Prolitec lacks evidence that anyone acting on behalf of ScentAir had the specific intent to deceive the United States Patent and Trademark Office by failing to disclose the Barclays Center system. Dkt. No. 379 at 34–36. In response, Prolitec points to record evidence suggesting that the inventors were aware that the Barclays Center system incorporated the limitations of the patented invention and that at least one of the inventors was familiar with the disclosure obligations of applicants under the relevant patent law as a result of his work as a technical advisor for patents. Dkt. No. 387 at 33–36.

"Because direct evidence of deceptive intent is rare, a district court may infer intent from indirect and circumstantial evidence." *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc). Moreover, while granting summary judgment on inequitable conduct is permissible, it is uncommon "in light of the 'inherently factual nature of the issue of intent.'" *Sprint Commc'ns Co. LP v. Charter Commc'ns, Inc.*, No. CV 17-1734, 2021 WL 982728, at \*4 (D. Del. Mar. 16, 2021) (citing *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1317 (Fed. Cir. 2006)).

Drawing all inferences in favor of Prolitec as the non-moving party, I find that a reasonable fact finder could find an intent to deceive based on the evidence that Prolitec has pointed to. *See*

Dkt. No. 381, Exh. 15 at 79:2–21 (testimony that the claimed invention “came about because of” the Barclays Center system), 31:17–25 (testimony that the inventor was “working more or less as a patent agent”). Accordingly, I will deny ScentAir’s summary judgment motion on this issue.

**F. Prolitec’s *Daubert* Motion Regarding ScentAir’s Damages Expert**

Prolitec argues that testimony from ScentAir’s damages expert, Kevin McElroy, should be excluded because his report failed to properly apportion the value of the infringing and non-infringing uses of the accused system. Dkt. No. 383 at 34–36. Prolitec explains that the claims require the central controller to control the operation of the scenting devices based on master schedules. To determine the value of that patented feature, Mr. McElroy examined the price difference between the accused system, which according to ScentAir includes functionality that practices the invention, and a similar system lacking that functionality. Prolitec contends that the relevant functionality of the accused system can be used in non-infringing ways, and that Mr. McElroy’s report is misleading because it fails to apportion the price difference to exclude the non-infringing uses of the accused system.

ScentAir responds by explaining that Prolitec’s technical expert and ScentAir’s technical expert disagree as to whether there are any non-infringing uses of the relevant feature and that I would need to resolve that technical dispute conclusively in Prolitec’s favor before excluding the challenged damages testimony. Dkt. No. 388 at 33–36. I agree with ScentAir that Prolitec’s motion boils down to a factual dispute between the experts as to whether there are any non-infringing uses for the accused system.

Prolitec’s reply brief does not support a contrary conclusion. There, Prolitec argues that “ScentAir’s damages case is based on the incorrect premise that all of the remote control features

of the [accused] system are infringing.” Dkt. No. 393 at 16. That argument is based on Prolitec’s contention that ScentAir’s technical expert has misread the patent.

“When, as here, the parties’ experts rely on conflicting sets of facts, it is not the role of the trial court to evaluate the correctness of facts underlying one expert’s testimony.” *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1392 (Fed. Cir. 2003). At trial, Prolitec is free to challenge the infringement opinions of ScentAir’s technical expert and to argue to the jury about the implications of those challenges with regard to damages. I cannot at this stage credit Prolitec’s technical expert’s opinion that there are non-infringing uses over ScentAir’s expert’s contrary opinion that there are not. *See i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 856 (Fed. Cir. 2010) (“Questions about what facts are most relevant or reliable to calculating a reasonable royalty are for the jury. The jury [is] entitled to hear the expert testimony and decide for itself what to accept or reject.”), *aff’d*, 564 U.S. 91 (2011). Accordingly, I will deny Prolitec’s motion to exclude Mr. McElroy’s opinions.

\* \* \*

In an abundance of caution, this order has been filed under seal because the parties’ briefs and exhibits regarding the present motions were filed under seal. Within three business days of the issuance of this order, the parties are directed to advise the court by letter whether they wish any portions of the order to remain under seal. Any request that portions of the order should remain under seal must be supported by a particularized showing of need to limit public access to those portions of the order.



IT IS SO ORDERED.

SIGNED this 13th day of March, 2025.

A handwritten signature in black ink, reading "William C. Bryson". The signature is written in a cursive style with a horizontal line underneath the name.

WILLIAM C. BRYSON  
UNITED STATES CIRCUIT JUDGE