IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
DENVER DIVISION

UPSTREAM DATA INC., Plaintiff, v. **CRUSOE ENERGY SYSTEMS LLC,** Defendant.	Civil Action No. 1:23-CV-01252-SKC **JURY TRIAL DEMANDED**

DEFENDANT'S MOTION TO DISMISS THE COMPLAINT
UNDER FED. R. CIV. P. 12(b)(6)

Pursuant to Federal Rule of Civil Procedure 12(b)(6), Defendant Crusoe Energy Systems LLC ("Crusoe") respectfully requests that the Court dismiss Plaintiff Upstream Data Inc.'s ("Upstream") complaint for infringement of United States Patent No. 11,574,372 (the '372 Patent") because it is based on a flawed theory of "joint infringement" and does not plead facts to show Upstream has a plausible claim for infringement on any grounds in its pleading.

INTRODUCTION

Upstream alleges that Crusoe's "Digital Flare Mitigation" system ("Accused Product") infringes its '372 patent. ECF 1 at ¶ 1. The complaint is full of accolades for Stephen Barbour, CEO of Upstream and inventor of the '372 patent, lauding him for supposedly inventing the use of waste natural gas to generate cheap electricity for bitcoin mining. But this simple idea was neither innovative or novel: waste gas had been used as cheap fuel by well operators for a long time, and generating electricity to power computers at the well-site was not a novel or non-obvious

use of electricity. To the contrary, Mr. Barbour only received a patent after adding a myriad of components and modifications to components (underlined below) to his "system":

> 1. A system comprising:
> a source of combustible gas produced from [[an oil]] a facility selected from a group consisting of a hydrocarbon production, storage, or processing facility;
> a generator connected to the source of combustible gas to receive a continuous flow of combustible gas to power the generator; and
> [[a]] blockchain mining devices connected to the generator;
> in which
> the blockchain mining devices each have a mining processor and are connected to a network interface;
> the network interface is connected to receive and transmit data through the internet to a network that stores or has access to a blockchain database;
> the mining processors are connected to the network interface and adapted to mine transactions associated with the blockchain database and to communicate with the blockchain database;
> the network is a peer-to-peer network;
> the blockchain database is a distributed database stored on plural nodes in the peer-to-peer network; and
> the blockchain database stores transactional information for a digital currency.

But, because Mr. Barbour added these additional elements to persuade the patent examiner to approve his system claims, he cannot sue Crusoe for infringement of Claims 1 and 2 without showing that all of the element are in the accused Digital Flare Mitigation product. Although Upstream tries to overcome this problem by pleading joint infringement, this judicially created legal theory only applies to method, not system claims. Without direct infringement, there is no indirect or willful infringement, and the complaint must be dismissed.

This is not just a pleading exercise. The real issue here is many of the elements do not appear in Crusoe's Digital Flare Mitigation product or any other Crusoe product. Upstream cannot plead direct infringement of a system claim by Crusoe.

I. Upstream Cannot Meet the Pleading Standard to Overcome Rule 12(b)(6)

Rule 12(b)(6) requires that a complaint contain sufficient factual matter, if accepted as true, to "'state a claim to relief that is plausible on its face.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (*quoting Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). To meet this facial plausibility standard, the plaintiff must plead "factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Id.*

"Plaintiff cannot assert a plausible claim for patent infringement by reciting claim elements and merely concluding that the accused product has those elements; there must be some factual allegations that, when taken as true, articulate why it is plausible that the accused product infringes the patent claim." *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342, 1353, 1355 (Fed. Cir. 2021) ("[W]e agree with the district court that Bot M8's allegations are conclusory, merely track the claim language, and do not plausibly allege that gaming information and a mutual authentication program are stored together on the same memory.").[1] Here, there are no specific facts to show every element of Claim 1 is in the Digital Flare Mitigation System charted at Exhibit 3 to the Complaint. ECF 1-3. Furthermore, even as to its legally deficient joint infringement theory, Upstream only pleads the elements of the theory in rote form with no specific facts to support it.[2]

[1] The court further wrote, "[M]ere recitation of claim elements and corresponding conclusions, without supporting factual allegations, is insufficient to satisfy the *Iqbal/Twombly* standard."

[2] Complaint, paragraph 30, "30. To the extent specific components of the Infringing Crusoe Products are provided and/or operated by Crusoe's customers, vendors or agents, Crusoe infringes at least claims 1-2 of the '372 Patent jointly with its customers, vendors, or agents. On information and belief, Crusoe directs and controls such infringing act(s) of one or more of these third parties by establishing the manner and timing of the one or more third parties' infringing act(s) and conditioning the participation of an activity or receipt of a benefit upon completion of the infringing act(s). Thus, Crusoe and the one or more third-parties jointly infringe the '372 Patent."

II. DIRECT INFRINGEMENT REQUIRES OWNERSHIP OR CONTROL OF THE ENTIRE SYSTEM

The asserted claims here are system claims. *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1332 (Fed. Cir. 2010) ("We have defined a machine as a concrete thing, consisting of parts, or of certain devices and combination of devices." (citation and internal quotation marks omitted))." *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007)(A machine claim—often referred to as an "apparatus" or "system" claim—covers "a concrete thing, consisting of parts, or of certain devices and combination of devices."). Direct infringement occurs when a person or entity, "without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent." 35 U.S.C. § 271(a).

In a system claim, "[t]he infringement analysis is a two-step inquiry. 'First, the court determines the scope and meaning of the patent claims asserted, and then the properly construed claims are compared to the allegedly infringing device.' " *Cordis Corp. v. Boston Scientific Corp*., 658 F.3d 1347, 1354 (Fed.Cir.2011) (*citing Cybor Corp. v. FAS Techs., Inc.,* 138 F.3d 1448, 1454 (Fed.Cir.1998) (en banc))." In order to directly infringe a system claim, every item listed must be owned or controlled by a single entity. *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.*, 631 F.3d 1279, 1284 (Fed. Cir. 2011)

Here, Crusoe does not infringe the asserted system claims, and it is doubtful they can be directly infringed by *anyone* because the premise of a blockchain database is the lack of central control. A blockchain database is a reliable record of transactions because they are recorded by many unrelated, parallel users, and downloaded frequently to every user. It is the lack of common

ownership or control of the blockchain database that makes its ledger of transactions immutable.[3] Further, there are other elements of the system claims that Crusoe does not own or control.

III. JOINT INFRINGEMENT ONLY APPLIES TO METHOD CLAIMS

Upstream knows that Crusoe does not own or control the laundry list of elements in the claimed systems, so it attempts to plead joint infringement among Crusoe, its vendors, and customers. Joint infringement is a judicial doctrine that applies to method claims. In *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020, 1023 (Fed. Cir. 2015), the Federal Circuit on remand from the Supreme Court stated that direct infringement under § 271(a) can be found "when an alleged infringer conditions participation in an activity on receipt of a benefit upon performance of ***a step or steps of a patented method and establishes the manner or timing of that performance.***" (emphasis added). In *Eli Lilly & Co.*, the court said: "The performance of ***method steps*** is attributable to a single entity in two types of circumstances: when that entity directs or controls others' performance, or when the actors form a joint enterprise." 845 F.3d at 1364 (emphasis added) (internal quotation marks omitted). *See also Lyda v. CBS Corp.*, 838 F.3d 1331, 1339-41 (Fed. Cir. 2016).

Infringement of a system claim, on the other hand, requires all elements be found in the accused system. *Centillion Data Systems, LLC*, 631 F.3d at 1286 ("Supplying the software for the customer to use is not the same as using the system."). Recently, in *Boston Scientific Corp. v. Cook Group Incorporated*, 2023 WL 1452172, *26 (S.D. Ind. 2013), the district court specifically considered an attempt to extend the *Akamai* line of cases on joint infringement from method to

[3] https://www.ibm.com/topics/blockchain
https://www.sciencedirect.com/science/article/pii/S2772485922000606

apparatus claims, and rejected the argument.[4] *See also Deep9 Corp. v. Barnes & Noble, Inc*., No. 11-cv-35, 2012 WL 4336726, at *10 (W.D. Wash. Sept. 21, 2012), *aff'd*, 504 F. App'x 923 (Fed. Cir. 2013)(joint or vicarious infringement does not apply to system claim). In *Deep9 Corp.,* the district court confronted a single system claim that dealt with the software to perform the steps of the method claims in the patent. However, because the system required the internet as one of its elements there was no direct infringement: "In other words, logically, Barnes & Noble cannot provide each and every limitation required by the system disclosed in Claim 24 because it does not provide the "common communications," *i.e*., the Internet." *Id*. at *10-11. Likewise, here Crusoe does not own or control the internet, so it too cannot infringe the claimed system.

A. Claims 1 And 2 Are To Systems That Crusoe Does Not Own or Control

Upstream's factual allegations begin and end with the Digital Flare Management System. *See* ECF 1 at ¶ 16 and ECF 1-3 ("Ex. 3").[5] Claim 1 is the sole independent system claim in the

[4] "Plaintiffs first cite to *Autronic Plastics, Inc. v. Apogee Lighting, Inc.,* No. 19-CV-6268 (MKB), 2021 WL 5965715, (E.D.N.Y. Dec. 16, 2021), for the proposition that "[a]n actor may be held liable for direct infringement based on another entity's actions where that actor directs or controls the other entity's performance." *Id*. at *4. But that court's reasoning is not persuasive nor binding on this Court and is inapposite in any case. In that case, the court relied on a family of Federal Circuit cases all stemming from *Akamai Technologies, Inc. v. Limelight Networks, Inc*., 797 F.3d 1020 (Fed. Cir. 2015). But *Akamai* and its progeny do not stand for a rule that a party can be liable for direct infringement any time it directs or controls the infringing activity of a subsidiary. Rather, these cases apply to a particular context that is not relevant here: when the patent claim allegedly infringed is a method claim and more than one party is performing the pertinent steps. *See Akamai*, 797 F.3d at 1022 (emphasis added) (discussing vicarious liability applicability for direct infringement and stating that "[w]e will hold an entity responsible for others' performance of method steps in two sets of circumstances: (1) where that entity directs or controls others' performance, and (2) where the actors form a joint enterprise"); *see also Travel Sentry, Inc. v. Tropp*, 877 F.3d 1370, 1378 (Fed. Cir. 2017) (citing to *Akamai* and stating that one actor may be liable for direct infringement of a method claim if it directed or controlled another entity to perform certain steps). Plaintiffs attempt to transplant this language into the apparatus claim context and argue that a parent entity can be liable for direct infringement when it directs a subsidiary entity to make, use, sell, offer to sell, or import an infringing product; Akamai did not go this far. "

[5] Moreover, Upstream cannot plead method claims, because each step of a method claim must be performed in the United States. "[D]irect infringement of a method claim requires that each of the claimed steps are performed within the United States. *Meyer Intell. Properties Ltd. v. Bodum, Inc*., 690 F.3d 1354, 1371 (Fed. Cir. 2012) (*citing NTP, Inc. v. Rsch. In Motion, Ltd., 418 F.3d 1282, 1318 (Fed. Cir. 2005). See also Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.,* 576 F.3d 1348, 1364-65 (Fed. Cir. 2009) (holding that Section 271(f) does not apply to method patents because method patents do not have physical components that could be combined outside the United States). The world-wide web does not limit access to computers and networks outside of the United States.

'372 patent. Since all other system claims (2-23) depend from it, none can be infringed if Claim 1 is not infringed by the Digital Flare Management System.

Claim 1 is "[a] system" comprising "a source of combustible gas" from a "hydrocarbon production, storage or processing facility." It then adds "a generator" connected to "the source" of natural gas to "power the generator". This electricity powers "blockchain mining devices connected to the generator", and "the blockchain mining devices each have a mining processor and are connected to a network interface." Claim 1 further states: "the network interface is connected to receive and transmit data through the internet to a network that stores or has access to a blockchain database; the mining processors are connected to the network interface and adapted to mine transactions associated with the blockchain database and to communicate with the blockchain database." Claim 1 refers expressly to the internet, and also says "the network is a peer-to-peer network; the blockchain database is a distributed database stored on plural nodes in the peer-to-peer network; and the blockchain database stores transactional information for a digital currency." Claim 2 simply adds "[t]he system of claim 1 isolated from a sales gas line and an external electrical power grid".

There are no facts to show that Crusoe owns or control the source of the gas, the hydrocarbon facility. There are no facts pled that Crusoe owns or controls the internet, and as in *Deep9*, this alone is enough to require dismissal of the system claims. Likewise, there are no facts alleged that Crusoe owns or controls the blockchain database, the peer-to-peer network or the plural nodes on which the blockchain database resides.

Upstream is trying to plead and enforce the claims Mr. Barbour applied for, not the claims that issued in the '372 patent. As a consequence, gaping holes exist in the specific facts needed to

show the system of Claim 1 is owned or controlled by Crusoe. And, since all elements of Claim 1 *must* be in all system claims that depend from it, Claim 2 likewise fails.[6]

B. There Are No Facts for a Plausible Allegation of Direct Infringement 'Making' the System.

Upstream relies mainly on a claim chart in Exhibit 3 for its allegations of specific facts to support its infringement claims. The claim chart, however, does not refer to or show any facts that show it is plausible to believe Crusoe ***makes*** the parts of the system that are the source of the gas, the hydrocarbon production, storage or processing facility or the internet, blockchain database, peer-to-peer network, plural nodes on which the blockchain database resides, or digital currency**.** *See* Complaint, Claim Chart Exh. 3, ECF 1-3.

For these reasons, Plaintiff's claims for "makes"-type direct infringement of the '372 Patent should be dismissed. *See Bowlby*, 681 F.3d at 219; *Cevallos*, 541 F. App'x at 392 (explaining plaintiff's factual allegations must be sufficient to "raise a right to relief above the speculative level").

C. Plaintiff Fails to Plead Facts Supporting 'Selling' or 'Offering to Sell' the Claimed Inventions

Selling or offering to sell a system requires each element of the claims be found in the alleged apparatus. *See Fujitsu Ltd. v. Belkin Int'l, Inc.*, 782 F. Supp. 2d 868, 887 (N.D. Cal. 2011) ("[L]iability for infringement requires a party to make, use, sell, or offer to sell the patented invention, meaning the entire patented invention."). Because it is impossible for Upstream to plead Crusoe sells or offers to sell a system that includes the source of the gas, the hydrocarbon production, storage or processing facility, or the internet, blockchain database, peer-to-peer

[6] All of the system claims depend directly or indirectly from Claim 1, and so include all of its elements.

network, plural nodes on which the blockchain database resides, or digital currency, Upstream cannot plead direct infringement based on "sell or offer to sell". Accordingly, the direct infringement claims for "sell", or "offering to sell" the systems of Claims 1 and 2 of the '372 patent must be dismissed.

D. Plaintiff Fails to Plead Facts Supporting Importation of the Invention

The complaint makes the unsupported statement that Crusoe "import[s] products, including at least the Accused Products, that meet every limitation, either literally or under the doctrine of equivalents, of at least claims 1-2 the '372 Patent, in violation of 35 U.S.C. § 271(a)." ECF 1 at ¶ 29. Plaintiff simply restates statutory language, nothing more. Nevertheless, importation of the claimed system cannot be pled because Crusoe, at best, only imports computers by purchasing them from a foreign manufacturer. However, these computers are only one element, not all elements, of the system. The allegation of direct infringement by importation of the claimed invention should be dismissed.

E. Plaintiff Fails to Plead Facts Supporting 'Use' of the Invention

Infringement for use of a system requires the user to benefit from each element of the claimed system and have control over each element of the claimed system. In *Centillion Data Sys., LLC*, the Court explained that "direct infringement by 'use' of a system claim 'requires a party . . . to use each and every . . . element of a claimed [system].'" 631 F.3d at 1284. The Court further concluded that "to 'use' a system for purposes of infringement, a party must put the invention into service, i.e., control the system as a whole and obtain benefit from it." *Id.* More recently, in *Intellectual Ventures I LLC v. Motorola Mobility LLC*, 870 F.3d 1320, 1329 (Fed. Cir. 2017), the majority held that the user must ***control and benefit from each element of the system***. Judge

Newman wrote a separate concurrence and dissent that illustrates *Intellectual Ventures*' holding is not simply directed at the system as whole, but goes to each individual element of the system. *Id*. at 1333.[7]

However, as stated above, Upstream has not pled any specific facts to show Crusoe has control over the source of the gas (hydrocarbon production, storage or processing facility), blockchain transactions, blockchain database, peer-to-peer network, the plural nodes on which the blockchain resides or digital currency. Indeed, Plaintiff cannot plead facts to show direct or indirect control of the blockchain database because the benefit of blockchain is that no one entity directly or indirectly controls or can change the ledger. *See* '372 Pat. at 11:65-12:12. The blockchain transactions are analogous to a competition, where participants are trying to perform more transactions faster than their competitors to record a block of information into the chain: no one competitor controls the competition or which transactions are placed in the record. No one has the ability to change a transaction after it has been recorded in the ledger.[8] Another benefit of a blockchain database is that the blockchain ledger is frequently downloaded on every computer participating in the "competition", hence none of the competitors (including Crusoe) can change transactions on every copy of the ledger once recorded in and downloaded from the database. If

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[7] "The district court correctly stated: "Centillion did not hold that the infringer 'benefit' from every single limitation. Rather Centillion held that the user must 'obtain benefit' from the 'system as a whole' and its analysis of (and finding of) benefit was not on a limitation-by-limitation basis." Dist. Ct. Op. at 422. My colleagues "disagree," Maj. Op. 1328, stating that:

> Centillion and NTP held that to "use" something is to put it into service, which means to control and benefit from it. And Centillion explicitly added that, to use a claimed system, what must be "used" is each element. From those two propositions, it follows that, to use a system, a person must control (even if indirectly) and benefit from each claimed component.

Id. (citations and parenthetical omitted).

> With respect, my colleagues are incorrect." *Intell. Ventures*, at 1333.

[8] https://www.ibm.com/topics/blockchain ("No participant can change or tamper with a transaction after it's been recorded to the shared ledger.")

Upstream believes it can plead the facts necessary to make a plausible case for infringement by use, then it must actually state facts, rather than rote, baseless allegations.

F. Indirect Infringement Fails Because No Direct Infringement Is Properly Pled

Indirect infringement requires direct infringement by someone. Plaintiff's allegations of indirect infringement are deficient because, as shown above, Plaintiff fails to provide factual support for its allegations of direct infringement by Crusoe or anyone else. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961); *In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1333 (Fed. Cir. 2012) ("Because liability for indirect infringement of a patent requires direct infringement, [the] amended complaints must plausibly allege that the '078 patent was directly infringed to survive Appellees' motion to dismiss."). Thus, claims for inducement to infringe and for contributory infringement must be dismissed.

X. Plaintiff's Claims for Willful Infringement Should Be Dismissed.

Because Plaintiff has not pled sufficient facts that allows the court to draw a reasonable inference that Crusoe is liable for direct or indirect infringement, the allegation of willful infringement likewise fails.

CONCLUSION

For the above reasons, Plaintiff's Complaint fails to state claims for direct infringement, joint infringement, induced infringement, and contributory infringement, and those claims should be dismissed pursuant to Federal Rule of Civil Procedure 12(b)(6).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

It is hereby certified that on July 20, 2023, a true and correct copy of the foregoing **MOTION TO DISMISS THE COMPLAINT UNDER FED. R. DIV. P. 12(b)(6)** was electronically served via the E-Filing system, to all counsel of record.

/s/ Karen Lancaster
Karen Lancaster