

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

QUALSERVE SOLUTIONS LLC,

Plaintiff,

v.

**SAMSUNG ELECTRONICS AMERICA,
INC.,**

Defendant.

Civil Action No.: 1:23-cv-00550

TRIAL BY JURY DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

1. Plaintiff Qualserve Solutions LLC (“Plaintiff”), through its attorneys, complains of Samsung Electronics America, Inc. (“Samsung”), and alleges the following:

NATURE OF THE ACTION

2. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) to prevent Defendant Samsung Electronics America, Inc. (hereinafter “Defendant”), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No. US 8,046,489 (the “489 Patent” or the “Patent-in-Suit”), which is attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney’s fees, and costs.

THE PARTIES

3. Plaintiff Qualserve Solutions LLC., is a limited liability company organized and existing under the laws of Delaware that registered incorporation address of 251 Little Falls Drive, Wilmington, Delaware 19808 according to the Delaware Secretary of State.

4. Defendant Samsung Electronics America, Inc. is a corporation organized and existing under the laws of New York, having a principal place of business at 85 Challenger Road,

Ridgefield Park, New Jersey 07660. Upon information and belief, Defendant may be served with process c/o C T Corporation System, 28 Liberty Street, New York, New York 10005.

JURISDICTION

5. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.

6. This Court has exclusive subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Defendant because it has engaged in systematic and continuous business activities in this District and is incorporated in this District. As described below, Defendant has committed acts of patent infringement giving rise to this action within this District.

VENUE

8. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant has an established place of business in this District. In addition, Defendant has committed acts of patent infringement in this District, and Plaintiff has suffered harm in this district.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendant resides in this District under the Supreme Court’s opinion in *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through its incorporation in this District.

PATENT-IN-SUIT

10. Plaintiff is the assignee of all right, title and interest in United States Patent No. 8,046,489 (the “’489 Patent” or the “Patent-in-Suit”); including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the

Patent-in-Suit. Accordingly, Plaintiff possesses the exclusive right and standing to prosecute the present action for infringement of the Patent-in-Suit by Defendants.

11. The '489 Patent is entitled "SYSTEM AND METHOD FOR PROCESSING QUALITY-OF-SERVICE PARAMETERS IN A COMMUNICATION NETWORK," after a full and fair examination. The patent issued on October 25, 2011. The '489 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten.

12. Plaintiff is presently the owner of the '489 Patent, having received all right, title and interest in and to the '489 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the '489 Patent, including the exclusive right to recover for past infringement.

13. To the extent required, Plaintiff has complied with all marking requirements under 35 U.S.C. § 287 with respect to the '489 Patent.

14. The invention claimed in the '489 Patent "refers to a system and method for processing a communication session between an originating location and a destination location." Ex. A, 1:1-3. For initiating a communication session through a network, several cooperating individual (sub-)session, each through a domain (e.g., sub-network) may be needed. Ex. A, 1:4-6. QoS signaling implementations in global networks do not exist yet. The prior art methods have several shortcomings. Ex. A, 1:16-17.

15. The '489 patent provides a novel system for processing a communication session to be set up via a communication path from an originating location to a destination location through a communication network comprising a plurality of network domains. Ex. A, 2:56-60. The novel system comprises a common Service Level Agreement (SLA) registry, containing Quality-of-Service (QoS) related parameters which are representative for the QoS valid for the relevant

domains between the originating location and the destination location. Ex. A, 2:60-64. The novel system aims to meet the prior art's shortcomings, considering that: domain owners should be able to make their own decisions, no new protocol should be needed for end-to-end QoS signaling of a session, the solution should be scalable, and the Commercial Service Level Agreement (SLA) information must be kept confidential. Ex. A, 2:48-55.

16. Claim 1 of the '489 Patent states:

"1. A system for processing a communication session to be set up via a communication path from an originating location to a destination location through a communication network comprising a plurality of network domains, the system comprising: a Service Level Agreement (SLA) registry, containing values for QoS related parameters that are representative of QoS valid for relevant domains between the originating location and the destination location, values for the QoS related parameters being representative of QoS for respective ones of relevant domains along the communication path; and a Quality-of-Service (QoS) processor which is configured to: process QoS related parameter values, which are retrieved from the SLA registry, that are representative of QoS valid for a plurality of relevant domains between the originating location and the destination location, and predict, based on the values for QoS related parameters that are representative of QoS valid for relevant domains between the originating location and the destination location, a plurality of end-to-end QoS values, each end-to-end QoS value being representative of one communication path between the originating location and the destination location, the QoS processor being configured to rank and/or select, based on the plurality of predicted end-to-end QoS values, one or more communication paths between the originating location and the destination location." See Ex. A.

17. Specifically, Claim 1 of the '489 Patent provides a solution to the previous problem by addressing a system for processing a communication session to be set up via a communication path to be selected from alternative paths through several network domains. Ex. A, 4: 53-56. The novel system comprises a QoS processor which is adapted for processing QoS related parameters

which are retrieved from the SLA registry and for predicting—based on those retrieved parameters—an end-to-end QoS value which is representative for the communication path between the originating location and the destination location. Ex. A, 2-3: 65-67;1-4. Moreover, the QoS processor is adapted for ranking or selecting or both ranking and selecting, based on said plurality of predicted (computed) end-to-end QoS values, one or more communications paths between the originating location and the destination location, having an optimal QoS value. Ex. A, 3:10-15.

18. Further, these specific elements of Claim 1 also accomplish these desired results to overcome the then existing problems in the relevant field of communication sessions. *Ancora Technologies, Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018) (holding that improving computer security can be a non-abstract computer-functionality improvement if done by a specific technique that departs from earlier approaches to solve a specific computer problem). See also *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018); *Core Wireless Licensing v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018); *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, 957 F.3d 1303 (Fed. Cir. April 30, 2020).

19. Claims need not articulate the advantages of the claimed combinations to be eligible. *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1309 (Fed. Cir. 2020).

20. Based on these allegations, it must be accepted as true at this stage, that Claim 1 of the '489 Patent recites a specific, plausibly inventive system for processing a communication session to be set up via a communication path from an originating location to a destination location through a communication network comprising a plurality of network domains. *Cellspin Soft, Inc.*

v. Fitbit, Inc., 927 F.3d 1306, 1319 (Fed. Cir. 2019), cert. denied sub nom. *Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907, 205 L. Ed. 2d 459 (2020).

21. Moreover, based on the allegations, the claim language, and the written description, the particular arrangement of elements in claim 1 of the ‘489 Patent is technical improvement over prior art, in that prior art failed to permit domain owners to be able to make their own decisions with no new protocol needed for end-to-end QoS signaling of a session. See *Coop. Ent., Inc. v. Kollektive Tech., Inc.*, No. 2021-2167, 2022 WL 4488902 (Fed. Cir. Sept. 28, 2022) (holding that the district court erred in dismissing a complaint where the claim language, the written description, and the amended complaint “describe[] how [the asserted patent's] particular arrangements of elements is a technical improvement over prior art.”)

22. The claims of the ‘489 Patent are not directed to an abstract idea and are therefore eligible for patent protection because the claims: (i) are directed to improving a computer network; and provide a specific solution to the computer network problem created by previous techniques. *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278 (Fed. Cir. 2020).

23. The claims of the ‘489 Patent are associated with certain activities are not directed to an abstract idea and are therefore eligible for patent protection because the claims detail how the invention solves the technological problem of identifying previous flaws in a computer or networked environment. Namely, the specification explains that previously known techniques could not solve the identified shortcomings and the claims focus on the specific improvement of a more granular, nuanced, and useful classification of network communications. *Packet Intelligence LLC v. NetScout Systems, Inc.* 965 F.3d 1299 (Fed. Cir. 2020), cert. denied, 141 S. Ct. 2521 (2021).

24. The claims of the ‘489 Patent are eligible inasmuch as they are directed to a specific improvement that solve a technical problem that were not conventional. *CosmoKey Solutions*

GMBH & Co. KG v. Duo Security LLC, 15 F.4th 1091, 1098-99 (Fed. Cir. 2021); and *CardioNet, LLC v. InfoBionic, Inc.* 955 F.3d 1358 (Fed. Cir. 2020).

25. Alternatively, there is at least a question of fact that must survive the pleading stage as to whether These specific elements of Claim 1 of the ‘489 Patent were an unconventional arrangement of elements. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018) See also *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911, 205 L. Ed. 2d 454 (2020).

26. Defendant commercializes, inter alia, said apparatus and method that perform all the steps recited in at least one claim of the ‘489 Patent. More particularly, Defendant commercializes, inter alia, methods that perform all the steps recited in Claim 1 of the ‘489 Patent. Specifically, Defendant makes, uses, sells, offers for sale, or imports a method that encompasses that which is covered by Claim 1 of the ‘489 Patent.

DEFENDANT’S PRODUCT(S)

27. Defendant offers solutions, such as the “Samsung Galaxy S10” (the “Accused Product”)¹, that practices a system for processing a communication session (voice, data apps over LTE Network as well as Satellite Network) Note, Samsung Galaxy S10 uses LTE network communication channel to carry out communication sessions with end-to-end QoS in the manner similar to the ETSI TS 102 462 (ETSI) which infringes the ‘489 Patent literally or under the doctrine of equivalents. A non-limiting and exemplary claim chart comparing the Accused Product of Claim 1 of the ‘489 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten.

¹ The Accused Product is just one of the products provided by Defendant, and Plaintiff’s investigation is on-going to additional products to be included as an Accused Product that may be added at a later date

28. As recited in Claim 1, the system, at least in internal testing and usage, utilized by the Accused Product provides a system for processing a communication session (voice, data, apps over LTE Network as well as Satellite Network). See Ex. B.

29. As recited in one step of Claim 1, the system, at least in internal testing and usage, utilized by the Accused Product which is connected to an integrated network such as an LTE Network, a Service Level Agreement (SLA) registry, containing values for QoS related parameters that are representative of QoS (such as packet delay, jitter, time to repair, mean opinion score) valid for relevant domains between the originating location and the destination location. See Ex. B.

30. As recited in another step of Claim 1, the system, at least in internal testing and usage, utilized by the Accused Product which is connected to an integrated network such as an LTE Network, a Quality-of-Service (QoS) processor is configured to process QoS related parameter values, which are retrieved from the SLA registry that are representative of QoS valid for a plurality of relevant domains between the originating location and the destination location. See Ex. B.

31. As recited in another step of Claim 1, the system, at least in internal testing and usage, utilized by the Accused Product which is connected to an integrated network such as an LTE network, a Quality-of-Service (QoS) processor predicts end-to-end QoS values (through algorithm – path search and optimization), each of which represents one communication path between the originating location and the destination location. See Ex. B.

32. The elements described in the preceding paragraphs are covered by at least Claim 1 of the '489 Patent literally or under the doctrine of equivalents. Thus, Defendant's use of the Accused Product is enabled by the apparatus and method described in the '489 Patent.

INFRINGEMENT OF THE PATENT-IN-SUIT

33. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs

34. In violation of 35 U.S.C. § 271, Defendant has directly infringed the '489 Patent literally or under the doctrine of equivalents.

35. Defendant has had knowledge of infringement of the '489 Patent at least as of the service of the present Complaint.

36. Defendant has directly infringed at least Claim 1 of the '489 Patent by using, at least through internal testing or otherwise, the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '489 Patent, Plaintiff has been damaged.

37. Upon information and belief, Defendant has induced others to infringe at least Claim 1 of the '489 Patent, literally or under the doctrine of equivalents, by encouraging infringement, knowing that the acts Defendant induced constituted patent infringement, and its encouraging acts actually resulted in direct patent infringement.

38. Upon information and belief, Defendant materially contributed to their own customers' infringement of the '489 Patent, literally or under the doctrine of equivalents, by selling the Accused Products to customers for use in a manner that infringed one or more claims of the '489 Patent. Moreover, the Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

39. By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the '489 Patent, pursuant to 35 U.S.C. § 271.

40. Defendant committed these acts of infringement without license or authorization.

41. As a result of Defendant's infringement of the '489 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

42. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

DEMAND FOR JURY TRIAL

43. Plaintiff demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for the following relief:

- a. That Defendant be adjudged to have directly infringed the '489 Patent either literally or under the doctrine of equivalents;
- b. An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;
- c. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- d. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and
- e. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: January 23, 2023

Respectfully submitted,

SAND, SEBOLT & WERNOW CO., LPA

/s/ Andrew S. Curfman

Andrew S. Curfman

(Pro hac vice filed concurrently)

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