UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

KAIFI LLC,	
Plaintiff,	
v.	Case No.
AMAZON.COM, INC.; AMAZON.COM SERVICES LLC; and AMAZON WEB SERVICES, INC.,	JURY TRIAL DEMANDED
Defendants.	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff KAIFI LLC ("Plaintiff" or "KAIFI") hereby alleges patent infringement against Defendants Amazon.com, Inc. ("Amazon.com"), Amazon.com Services LLC ("Amazon Services"), and Amazon Web Services, Inc. ("Amazon AWS") (collectively, "Defendants" or "Amazon") as follows:

<center><u>PARTIES</u></center>

1.   KAIFI is a corporation organized and existing under the laws of the State of Texas, having a principal place of business at 5700 Tennyson Pkwy 300, Plano, Texas 75024.

2.   Amazon.com is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. Amazon.com may be served via its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

3.   Amazon Services is a limited liability company organized and existing under the laws of the State of Delaware, having a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. Amazon Services may be served via its registered agent, Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company at 211 7th Street, Suite 620, Austin, Texas 78701.

4.   Amazon AWS is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business located at 410 Terry Avenue North, Seattle, Washington 98109. Amazon AWS is registered to do business in the State of Texas and may be served via its registered agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

5.   On information and belief, Amazon Services is a wholly owned subsidiary of Amazon.com and Amazon AWS is a wholly owned subsidiary of Amazon.com.

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JURISDICTION AND VENUE

6.   This patent infringement action arises under the patent laws of the United States,

Title 35 of the United States Code ("U.S.C.") § 101 *et seq*., including 35 U.S.C. §§ 271, 281,

283, 284 and 285.

7.   This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, and

1338(a).

8.   Amazon is subject to this Court's specific and general personal jurisdiction

consistent with the principles of due process and/or the Texas Long Arm Statute.

9.   Personal jurisdiction also exists over Amazon because it transacts substantial

business either directly or through its subsidiaries, affiliates, or intermediaries, some or all of

which are Amazon's agents or alter egos, with entities and individuals in this State and this

District, by, among other things, making, using, selling, offering for sale, importing, advertising,

making available, and/or marketing products and services that infringe one or more claims of the

asserted patents, as alleged more particularly below.

10.   Amazon has sufficient minimum contacts with this State and this District because

Amazon regularly solicits and transacts business herein, and/or because Amazon has engaged in

persistent conduct and/or has derived substantial revenue from goods and services provided in

this State and this District.

11.   Venue in this District is proper under 28 U.S.C. §§ 1391 and 1400(b) because,

among other things, Amazon has committed acts of infringement in this District and has regular

and established places of business in this District.

12.   Amazon offers to sell and sells infringing products and services throughout the

United States, this State, and this District, and introduces infringing products and services into

the stream of commerce knowing that they will be sold in the United States, this State, and this District.

13.   Amazon has authorized sellers and sales representatives and/or does business, offers for sale and/or sells products and services pertinent to this Complaint across the United States, including throughout this State, including in and to consumers throughout this District, through its website.

14.   Amazon owns, leases, and/or operates one or more warehouses, distribution centers, fulfillment centers, and/or other facilities in this District. These include but are not limited to: Amazon Fulfillment Center FTW3/FTW4 located at 15201 Heritage Parkway, Fort Worth, Texas 76177 (Denton County); Amazon Fulfillment Center STX8 located at 3501 Research Drive, Richardson, Texas 75082 (Collin County); Amazon Fulfillment Center located at 4121 International Parkway, Carrollton, Texas 75007 (Denton County); Amazon Distribution Facility at 1649 W. Frankford Road, Carrollton, Texas 75007 (Denton County); Amazon Delivery Stations in Frisco (Denton County), Lewisville (Denton County), and McKinney (Collin County); Amazon Hub Lockers in Plano (Collin County), Carrollton (Denton County), The Colony (Denton County), and Lewisville (Denton County); and Amazon AWS Local Zone located at 1649 West Frankford Rd., Carrollton, Texas 75007 (Denton County).

15.   Amazon, including Amazon Services, owns and operates the www.amazon.com website, and leases and operates Amazon Fulfillment Centers.

16.   Amazon, including Amazon AWS, operates in the Amazon Fulfillment Centers located within this District and its systems, software, and employees are integral to their automated robotics operations.

17.   According to Amazon, "Amazon's Fulfillment Centers are wonders of

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automation, with AWS at their core."[1] At Amazon Fulfillment Centers, "robots work alongside our amazing employees."[2] The Amazon Fulfillment Centers are "a symphony of people, AWS, software, and other high-tech components. The result is a coordination between our great employees and the finely-honed computer systems we've evolved for more than 20 years."[3]

18.   According to Amazon, the Amazon Robotics team has developed "more than a hundred services to support operations and uses AWS extensively in the Amazon Fulfillment Centers" and Amazon Robotics locations are "tracked in real time using our own created robotic operating software."[4] Amazon Fulfillment Centers also utilize various other AWS services and products, including but not limited to Amazon Aurora; Amazon Neptune; Amazon SageMaker; and AWS IoT Services.[5]

19.   According to Amazon, Amazon Fulfillment Center associates are Amazon AWS employees involved in operating the business of Amazon AWS as "the heart and soul of our operation."[6] Amazon Fulfillment Center associates actively take part in the operation and improvement of AWS systems and software. For example, when Amazon AWS's Machine Learning model has "low confidence" in the classification of a product, "[i]t sends images to people to classify and train more ground truth data for [AWS's] Machine Learning model, which operates in Amazon Sagemaker and Amazon Sagemaker Ground Truth from AWS."[7]

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[1] *Amazon Fulfillment Center Tour with AWS*, Amazon Web Services YouTube Channel, https://www.youtube.com/watch?v=8nKPC-WmLjU.

[2] *Id*.

[3] *Id*.

[4] *Id*.

[5] *Id*.

[6] *Id*.

[7] *Id*.

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20.   According to Amazon, the majority of the physical space at Amazon Fulfillment Centers are dedicated to Amazon AWS's Amazon Robotics operations, as "about 65% of the facility's total square footage" are dedicated to fenced-off areas where its Amazon Robotics operate using Amazon AWS's "own created robotic operating software."[8]

21.   According to Amazon, "Amazon Fulfillment Centers are wonders of innovation and industrial automation. See how robotics, miles of conveyors, complex scanning & sortation equipment, advanced automation and machine learning come together with the help of AWS to get packages to customers in as fast as one day for Prime members."[9]

22.   On information and belief, Amazon maintains an "AWS Local Zone" at 1649 West Frankford Rd., Carrollton, Texas 75007 (Denton County). An AWS Local Zone is a physical location including "AWS infrastructure deployment that place compute, storage, database, and other select services closer to large population, industry, and IT centers."[10] An AWS Local Zone is "an extension of an AWS Region in geographic proximity to your users. Local Zones have their own connections to the internet and support AWS Direct Connect, so that resources created in a Local Zone can serve applications that require low latency."[11]

23.   The Amazon warehouses, distribution facilities, fulfillment centers, delivery centers, hub lockers, local zones, and other facilities in this District are regular, physical, continuous, and established places of business. Amazon established, ratified, and controls these

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[8] *Id.*

[9] *AWS for* Industrial, AWS Website, https://aws.amazon.com/industrial/.

[10] *AWS Local Zones Features*, AWS Website, https://aws.amazon.com/about-aws/global-infrastructure/localzones/features/#:~:text=AWS%20Local%20Zones%20are%20a,millisecond%20latency%20to%20end%20users.

[11] *How Local Zones Work*, AWS Website, https://docs.aws.amazon.com/local-zones/latest/ug/how-local-zones-work.html.

places of business. Amazon lists and describes these places of business on its own websites, on other public websites, and/or in its SEC filings. Amazon employs thousands of employees at these places of business from which it conducts business, including the infringing conduct, in this District to its benefit.

24.   Amazon makes, uses, sells, offers to sell, and/or imports infringing products and services into and/or within this District, maintains a permanent and/or continuing presence within this District, and/or has the requisite minimum contacts with this District such that this venue is a fair and reasonable one. Upon information and belief, Amazon has transacted and, at the time of the filing of the Complaint, is continuing to transact business within this District, and has and continues to derive substantial revenue from infringing acts in this District.

ASSERTED PATENTS

25.   KAIFI owns the entire right, title, and interest in and to the following patent, including the right to seek damages for past and ongoing infringement: U.S. Patent No. 8,930,196 ("the '196 Patent").

26.   The '196 Patent is entitled "System For Detecting Speech Interval And Recognizing Continuous Speech In A Noisy Environment Through Real-Time Recognition Of Call Commands." The '196 Patent was duly and legally issued by the United States Patent Office on January 6, 2015. The named inventors are Heui-Suck Jung, Se-Hoon Chin, and Tae-Young Roh. A true and correct copy of this patent is attached hereto as Exhibit 1.

27.   The '196 Patent was originally issued to KoreapowerVoice Co., Ltd. ("PowerVoice"). Located in Korea and founded in 2002, PowerVoice is a pioneer in voice recognition technologies. PowerVoice's technologies include voice recognition and speaker verification engines for DSP and CPU modules, particularly used in security systems and voice

recognition applications for smart devices and home networking. Global companies have turned to PowerVoice technology for a wide variety of products, including home networking, appliances and heavy equipment, automotive systems and navigations, and smartphone applications.

28.   KAIFI owns the entire right, title, and interest in and to the following patent, including the right to seek damages for past and ongoing infringement: U.S. Patent No. 8,040,232 ("the '232 Patent").

29.   The '232 Patent is entitled "USN Middleware Apparatus And Method For Generating Information Based On Data From Heterogeneous Sensor Networks And Information Service Providing System Using The Same." The '232 Patent was duly and legally issued by the United States Patent Office on October 18, 2011. The named inventors are Se-Won Oh, Yong-Joon Lee, and Jong-Hyun Park. A true and correct copy of this patent is attached hereto as Exhibit 2.

30.   KAIFI owns the entire right, title, and interest in and to the following patent, including the right to seek damages for past and ongoing infringement: U.S. Patent No. 11,082,518 ("the '518 Patent").

31.   The '518 Patent is entitled "Method For Operating Relation Server And System Using The Same." The '518 Patent was duly and legally issued by the United States Patent Office on August 3, 2021. The named inventors are Young-Sic Jeong, Sang-Keun Yoo and Yong-Woon Kim. A true and correct copy of this patent is attached hereto as Exhibit 3.

32.   KAIFI owns the entire right, title, and interest in and to the following patent, including the right to seek damages for past and ongoing infringement: U.S. Patent No. 7,689,001 ("the '001 Patent").

33.   The '001 Patent is entitled "Method For Recognizing Location Using Built-In Camera And Device Thereof." The '001 Patent was duly and legally issued by the United States Patent Office on March 30, 2010. The named inventors are Jae-Ho Kim and Gyung-Chul Sihn. A true and correct copy of this patent is attached hereto as Exhibit 4.

34.   The '232 Patent, '518 Patent, and '001 Patent were originally issued to Electronics and Telecommunications Research Institute ("ETRI"). Located in Korea and established in around 1976, ETRI is one of the world's leading research institutes and is considered one of the top research institutes in the area of wireless technologies. ETRI's innovations include core technologies in the fields of information, communications, electronics, broadcasting and convergence.

35.   The claims of the '196 Patent are directed to patent-eligible subject matter and satisfy the requirements of 35 U.S.C. § 101. The apparatus and methods taught by the '196 Patent solve technological problems and improve performance in speech recognition systems by, among other things, enabling detecting a speech interval in noisy environments using call commands, which "can solve the disadvantage of an isolated word recognition system which requires a special event for speech recognition while solving the disadvantage of a conventional keyword detection-based continuous speech recognition technique which requires not only a large computational load but also the change of a language model or post-processing."[12] This enables, among other things, continuous speech recognition that is very robust in noisy environments.[13]

36.   In addition, the specification of the '196 Patent describes embodiments

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[12] Ex. 1 at 2:51-56.

[13] *Id*. at 3:6-19.

implementing the technological solution of the invention, including exemplary techniques and improvements to computer systems. As one example, the specification describes aspects of an exemplary embodiment as follows: "a system for detecting a speech interval and recognizing continuous speech using real-time recognition of call commands, wherein when a speaker speaks a call command, the call command is recognized, confidence rate of the call command is measured, and a speech interval spoken subsequent to the call command is applied to a continuous speech recognition engine at a moment at which the call command is recognized, thus recognizing speech of the speaker. In this case, the recognition of the call command is performed by a call command recognition network which is implemented using a Left-to-Right (LTR) model, and a speech frame input to the recognition network is configured to include predetermined tokens and is compared based on probability with the recognition network in real time. In this case, each of the predetermined tokens includes the speech frame and a silence interval accompanied by noise. In this case, the call command recognition network is configured such that, when an accumulated probability of the predetermined token which is computed in real time after passing through the call command recognition network falls within a range of a predetermined upper percentage, the call command is estimated to have been spoken, and the speech frame is transferred to a confidence measurement stage."[14]

37.   Furthermore, the '196 Patent describes exemplary techniques for call command recognition. As an example, the specification describes an exemplary "call command recognition network" including an "adaptive filter 421 [that] is a Finite Impulse Response (FIR) filter for automatically tracking the spectrum characteristics of surrounding noise from noise-containing input speech (all spoken Voices including call commands) and eliminating the

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[14] *Id*. at 3:55-4:11.

surrounding noise."[15] A "feature extraction unit 422 is a component for audibly modeling the

spectrum characteristics of the input speech, having passed through the adaptive filter 421, for

each frame, and converting the spectrum characteristics into robust parameters."[16] And

"keyword searching unit 423 determines whether relevant speech is a call command using an

acoustic model database (DB), a pronunciation dictionary DB and a language model DB, and

then determines whether to execute the continuous speech recognition routine. The keyword

searching unit 423 includes a token passing unit for configuring a speech frame, which includes a

silence interval accompanied by noise and call commands from the speaker, in the form of a

minimum number of tokens, and then searching for call commands, and a confidence detection

unit for detecting the confidence of each recognized call command in relation to whether the

recognized call command is an authentic or false command."[17]

        38.   The specification further describes the technological solution of the invention,

stating that, for example, the "scheme of the present invention has the advantages of remarkably

reducing the memory capacity and computational processing ability which are necessary for a

continuous speech recognition system using the conventional recognition network. In order to

solve the problems, the following technique is proposed in the present invention so that a higher

rejection rate for unregistered words can be obtained and the speech recognition rate can be

improved even though just a small computational load is used when the keyword-detection based

continuous speech recognition system is implemented."[18] Additional details and improvements

of the invention are described in the '196 Patent, which is incorporated herein by reference.

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[15] *Id*. at 5:28-34.

[16] *Id*. at 5:35-39.

[17] *Id*. at 5:40-52.

[18] *Id*. at 6:36-46.

39.   The claims of the '232 Patent are directed to patent-eligible subject matter and satisfy the requirements of 35 U.S.C. § 101. The systems, apparatus, and methods taught by the '232 Patent solve technological problems with processing, integrating, and using data from heterogeneous sensor networks, which traditionally required significant control and computational cost and power resources. For example, the '232 Patent enables use of an information service for these heterogeneous networks including a Ubiquitous Sensor Network (USN) middleware for extracting object and environment information by cleaning, classifying and integrating the message received from the sensor network data transmitter, generating conditional events, context aware information, circumstantial analysis information, and the other relevant knowledge contents from the extracted object and environment information, and providing the information service to an application program, the application program providing a user with information related to the environment where the sensor network observes or is installed.[19] This allows, among other things, changing environment conditions to be collected in real-time and the operation states of the sensor networks to be continuously monitored, thereby increasing the effectiveness and reliability of the information service, and improving utilization of the sensor network and applications using it.[20]

40.   In addition, the specification of the '232 Patent describes embodiments implementing the technological solution of the invention, including exemplary techniques and improvements to computer systems. For example, the specification describes that "USN middleware apparatus 40 includes a sensor network abstraction unit 41, a sensor network intelligence unit 42, and a service platform management unit 43. The sensor network abstraction

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[19] *See, e.g.*, Ex. 2 at 2:17-3:33.
[20] *Id*. at 3:23-35.

unit 41 extracts the sensed data from the message received from the gateway 30. The sensor

network intelligence unit 42 extracts the object properties and the environment state information

by performing an analysis operation to clean, classify and integrate the sensed data extracted by

the sensor network abstraction unit 41, and generates conditional events, context aware

information, and the other knowledge contents such as circumstantial analysis information. The

service platform management unit 43 provides the results processed by the sensor network

intelligence unit 42 to the application program 50 in a form suitable for the application program

50. The processed results include both the extracted information including the object properties

and the environment state information, and the generated information including conditional

events, context aware information, and circumstantial analysis information. The service platform

management unit 43 can also provide an information selection and interface function based on a

plurality of heterogeneous sensor networks, which is required by the application program 50."[21]

41.   The specification further describes examples of "the sensed data collected by the

sensor network 20, the sensed data analyzed by the USN middleware apparatus 40, and

conditional events and context aware information generated by the USN middleware apparatus

40."[22] Additional details and improvements of the invention are described in the '232 Patent,

which is incorporated herein by reference.

42.   The claims of the '518 Patent are directed to patent-eligible subject matter and

satisfy the requirements of 35 U.S.C. § 101. The systems taught by the '518 Patent, among other

things, solve technological problems in managing and synchronizing relationships between

various interconnected machines with different functions and states, such as smart home systems.

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[21] *Id*. at 5:1-27.

[22] *Id*. at 5:63-67 and Table 1.

The '518 Patent teaches, for example, a relation server for storing a relation profile including a task processing schedule parameter which defines a sequence of performing multiple processes, and for requesting selected machines of the multiple machines to perform the multiple processes.[23]

43.   In addition, the specification of the '518 Patent describes embodiments implementing the technological solution of the invention, including exemplary techniques and improvements to computer systems. For example, the specification describes exemplary "[p]arameters of machine profile" that may be used in the system.[24] The specification states that "the relation server 104 may form relations between the machines 101, 102, 105, and 106, based on the capability set, the capability parameters and the status parameters of the respective machines 101, 102, 105, and 106, and generate a relation profile based on the relations. The generated relation profile may be stored in the relation server 104 or a storage space associated with the relation server 104."[25] The specification further describes, for example, referring to Table 2, that "the parameters of the relation profile may include a capability set parameter, grouped machine parameters, a work group ID parameter, a task description, parameter, a task processing schedule parameter, etc."[26] The specification further explains that, for example, "the relation server 104 may perform management so that the corresponding machines perform required operations at required times based on the newly generated relation profile."[27]

44.   The specification further describes the technological solution of the invention,

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[23] *See, e.g.*, Ex. 3 Claim 1.

[24] *See, e.g.*, *id*. at Table 1.

[25] *Id*. at 5:65-6:5.

[26] *Id*. at Table 2 and 7:28-32.

[27] *Id*. at 10:46-49.

stating that, for example, "when various machines form collaborative relations, methods for managing the relations between the machines are required. Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an object of the present invention is to provide a method for operating a relation server and a system using the method, which manage relations between machines that are required in order to execute externally received commands."[28] Additional details and improvements of the invention are described in the '518 Patent, which is incorporated herein by reference.

45.   The claims of the '001 Patent are directed to patent-eligible subject matter and satisfy the requirements of 35 U.S.C. § 101. The devices and methods taught in the '001 Patent, among other things, solve technological problems in recognizing a user location. For example, the specification explains that the "conventional location determination method has problems in accuracy and recognition speed. Further, it may not be used in environments including a shadow area where a signal may not reach due to frequency interference or reduction of signal strength, and an indoor area or a basement that a GPS signal may not reach."[29] The specification further states that, for example, the "present invention has been made in an effort to provide a location recognition device for accurately and quickly recognizing a location by using a built-in camera without being affected by wireless communication environments or geo graphical environments and providing information on various locations, and a method thereof."[30]

46.   In addition, the specification of the '001 Patent describes embodiments implementing the technological solution of the invention, including exemplary techniques and

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[28] *Id*. at 1:38-49.

[29] Ex. 4 at 1:48-53.

[30] *Id*. at 2:6-11.

improvements to computer systems. For example, the '001 Patent teaches an "exemplary

location recognition device according to an embodiment of the present invention recognizes a

location by using a built-in camera. The exemplary location recognition device includes an

image photographing unit, a distance measuring unit, an image analyzing unit, and a location

recognizing unit. The image photographing unit photographs a plurality of location recognition

tags that are arranged in a predetermined physical area, respectively stores location recognition

information, and performs a digital image process. The distance measuring unit measures a

distance to the location recognition tag. The image analyzing unit analyzes an image of the

location recognition tag processed by the image photographing unit, and recognizes

corresponding location information and direction information of the location recognition tag.

The location recognizing unit recognizes a user location by using distance information measured

by the distance measuring unit, and the location information and the direction information

recognized by the image analyzing unit."[31]

47.   Furthermore, the specification of the '001 Patent further describes exemplary

techniques for implementing the invention including, for example, in relation to FIG. 2, "a one-

dimensional bar code or a two-dimensional bar code identified by the photographed image is

used as the location identifier in the exemplary embodiment of the present invention, and

hereinafter, the one-dimensional bar code or the two-dimensional bar code will be referred to as

the 'location recognition tag'. In addition, the two-dimensional barcode as the location

recognition tag will be described in the exemplary embodiment of the present invention. More

than one location recognition tag 30 is provided in an indoor area, a basement, a predetermined

location, or an object, and they are positioned in appropriate locations with an appropriate

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[31] *Id*. at 2:36-54.

density according to a desired precision of location recognition and user accessibility.

Accordingly, a user photographs one or more location recognition tags 30 of the object 20 having

the location recognition tags 30 by using a camera terminal 100 so as to determine his

location."[32]

48.   The '001 Patent further explains that, in exemplary embodiments, the location

recognition tag(s) may be photographed and recognized and that, for example, "location

information management server 200 performs a long distance wireless communication or a short

distance wireless communication with the camera terminal 100 to receive the location

information including image data of the location recognition tag 30 from the camera terminal

100. In addition, the location information management server 200 is connected to the Internet to

transmit/receive the information to/from a terminal in a remote place. Further, the location

information management server 200 may provide coordinate information when the camera

terminal 100 requests the coordinate information corresponding to the location recognition tag

30. At least one among the camera terminal 100 and the location information management

server 200 interprets an absolute/logic location coordinate from an image of the location

recognition tag 30 and detects offset information of the image of the location recognition tag 30,

and the camera terminal 100 measures a distance to the photographed location recognition tag

30."[33] Additional details and improvements of the invention are described in the '001 Patent,

which is incorporated herein by reference.

ACCUSED INSTRUMENTALITIES

49.   Amazon makes, uses, sells, and/or offers to sell in, and/or imports into the United

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[32] *Id*. at 4:47-64.

[33] *Id*. at 5:8-26.

States systems, products, and/or services that infringe one or more claims of the Asserted Patents

(the "Accused Instrumentalities").

50.   The Accused Instrumentalities include Alexa, Alexa App, Alexa Voice Services

(AVS), Amazon Web Services (AWS), Echo, and Amazon and third-party branded smart and/or

Internet of things (IoT) systems, services, networks, servers, and devices ("Accused Smart

Instrumentalities"); and autonomous mobile robots (AMRs) and robotic systems ("Accused

AMR Instrumentalities"). Appendix A provides a non-exhaustive list of the Accused

Instrumentalities.

COUNT I – INFRINGEMENT OF THE '196 PATENT

51.   The '196 Patent is valid and enforceable.

52.   Amazon infringes at least claim 9 of the '196 Patent. Appendix B details the

manner in which the Accused Smart Instrumentalities infringe by way of an exemplary chart as

illustrated through a representative example. On information and belief, infringement of this

patent by other Accused Instrumentalities is materially or substantially the same.

COUNT II – INFRINGEMENT OF THE '232 PATENT

53.   The '232 Patent is valid and enforceable.

54.   Amazon infringes at least claim 1 of the '232 Patent. Appendix C details the

manner in which the Accused Smart Instrumentalities infringe by way of an exemplary chart as

illustrated through a representative example. On information and belief, infringement of this

patent by other Accused Instrumentalities is materially or substantially the same.

COUNT III – INFRINGEMENT OF THE '518 PATENT

55.   The '518 Patent is valid and enforceable.

56.   Amazon infringes at least claim 1 of the '518 Patent. Appendix D details the

manner in which the Accused Smart Instrumentalities infringe by way of an exemplary chart as illustrated through a representative example. On information and belief, infringement of this patent by other Accused Instrumentalities is materially or substantially the same.

COUNT IV – INFRINGEMENT OF THE '001 PATENT

57.   The '001 Patent is valid and enforceable.

58.   Amazon infringes at least claim 8 of the '001 Patent. Appendix E details the manner in which the Accused AMR Instrumentalities infringe by way of an exemplary chart as illustrated through a representative example. On information and belief, infringement of this patent by other Accused Instrumentalities is materially or substantively the same.

NOTICE AND INFRINGEMENT

59.   Amazon had actual and/or constructive prior notice of the Asserted Patents and/or its infringing activities. For example, in April 2017, Amazon contacted PowerVoice to inquire about PowerVoice's technologies for incorporation into Amazon products and services, including for example, Alexa. During those discussions, PowerVoice provided presentations and materials about its technologies and disclosed its patent portfolio to Amazon. On information and belief, Amazon previously received notice of one or more of the Asserted Patents during the prosecution of patent applications of its own or by its affiliates. For example, Amazon received notice of at least the '196 Patent during prosecution of the applications for U.S. Patent No. 9,390,708 and U.S. Patent No. 9,697,828.

60.   Further, to the extent that Amazon contends it lacked actual knowledge of its infringement of the Asserted Patents before the time of service of this Complaint, it was willfully blind by deliberately avoiding investigating KAIFI's patents or inspecting and/or instructing its employees not to investigate KAIFI's patents.

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61.   In addition to having actual and/or constructive pre-suit notice of the Asserted Patents as detailed above, Amazon has actual notice and knowledge of the Asserted Patents no later than the filing of this Complaint and/or the date this Complaint was served upon Amazon.

62.   Amazon has committed and continues to commit acts of direct infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing in and into the United States, this State, and this District the Accused Instrumentalities.

63.   Amazon has been and is indirectly infringing the Asserted Patents by actively inducing or contributing to the direct infringement by others, in the United States, this State, and this District.

64.   Amazon has induced and continues to induce its subsidiaries and affiliates, customers, and other third parties, such as resellers and end-consumers of Accused Instrumentalities, to directly infringe the Asserted Patents by making, using, selling, offering to sell, and/or importing into the United States the Accused Instrumentalities through affirmative acts.

65.   The affirmative acts of inducement by Amazon include, but are not limited to, any one or a combination of encouraging and/or facilitating third-party infringement through the advertisement, marketing, offering for sale, promoting, and dissemination of the Accused Instrumentalities and their components; and creating and publishing promotional and marketing materials, supporting materials, product manuals, and/or technical support and information relating to the Accused Instrumentalities.

66.   Amazon took active steps to encourage end users to use and operate the Accused Instrumentalities, despite knowing of the Asserted Patents in the United States, in a manner it knew directly infringes each element of the claims of the Asserted Patents. Further, Amazon

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provided product manuals and other technical information that cause its subscribers, customers, and other third parties to use and to operate the Accused Instrumentalities for their ordinary and customary use, such that these third parties have directly infringed the Asserted Patents, through the normal and customary use of the Accused Instrumentalities.

67.   Amazon specifically intended and was aware that the ordinary and customary use of the Accused Instrumentalities would infringe the Asserted Patents.

68.   Amazon knew that the induced conduct would constitute infringement, and intended said infringement at the time of committing the aforementioned acts, such that those acts and conduct have been and continue to be committed with the specific intent to induce infringement, or to deliberately avoid learning of the infringing circumstances at the time those acts were committed, so as to be willfully blind to the infringement they induced.

69.   Amazon has contributed and continues to contribute to the infringement of its subsidiaries and affiliates, customers, and other third parties, such as resellers and end-consumers of Accused Instrumentalities, to directly infringe the Asserted Patents by offering to sell, selling or importing within or into the United States, this State and this District a component of the Accused Instrumentalities, which constitutes a material part of the invention and are not a staple article or commodity of commerce suitable for substantial noninfringing use.

70.   Amazon knew and knows that the component is especially made or adapted for use in infringement of the Asserted Patents.

71.   Amazon also infringes jointly and/or vicariously. Amazon engages or participates in a joint enterprise and/or collective conduct of making, using, offering to sell, selling, and/or importing of the Accused Instrumentalities with at least one or more subsidiaries and affiliates, customers, and/or other third parties. Amazon acts under or provides the direction and/or control

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of one or more different parties. The infringing acts of subsidiaries, affiliates, customers and other third parties are attributable to Amazon.

72.   As detailed above, Amazon's conduct constitutes willful infringement of the Asserted Patents. As discussed above, Amazon has had knowledge of KAIFI's Asserted Patents and its infringement thereof, and yet has deliberately and intentionally continued to infringe with reckless disregard for KAIFI's patent rights. Amazon's use of the Asserted Patents is not licensed or authorized by KAIFI in any way. Therefore, Amazon is liable for infringement of the Asserted Patents and that infringement has been and continues to be willful in nature.

73.   KAIFI has incurred and will continue to incur substantial damages; and has been and continues to be irreparably harmed by Defendant's infringement. Therefore, KAIFI is entitled to an injunction, actual and/or compensatory damages, reasonable royalties, pre- and post-judgment interest, enhanced damages, attorney fees, and costs.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff KAIFI respectfully requests that this Court:

A.   Enter judgment in favor of KAIFI that each Asserted Patent is valid and enforceable;

B.   Enter judgment that each Defendant has infringed one or more claims of the Asserted Patents, in violation of the United States Code, including, without limitation, 35 U.S.C. § 271;

C.   Enter judgment that each Defendant's infringement is or has been willful;

D.   Award KAIFI damages adequate to compensate KAIFI for each Defendant's past infringement, and any continuing or future infringement through the date such judgment is entered, including prejudgment and post-judgment interest, costs, expenses and an accounting of

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all infringing acts including, but not limited to, those acts not presented at trial;

      E.   Increase damages awarded to KAIFI in this case to three times the damages

amount found by the jury or assessed by the Court pursuant to 35 U.S.C. § 284;

      F.   Declare this case exceptional and award KAIFI its reasonable attorney fees and

costs incurred in bringing and prosecuting this action pursuant to 35 U.S.C. § 285;

      G.   Enjoin each Defendant and its subsidiaries, and their officers, agents, servants,

employees, and all persons in active concert with any of the foregoing from further infringement

of the Asserted Patents, or if its infringement is not enjoined, that Defendants be ordered to pay

KAIFI ongoing royalties for any post-judgment infringement of the Asserted Patents; and

      H.   Grant KAIFI all such other relief as the Court deems just and reasonable.

DEMAND FOR JURY TRIAL

      KAIFI demands a jury trial on all issues so triable pursuant to Federal Rule of Civil

Procedure 38 and other applicable law.

Date: July 17, 2024   */s/ Jennifer Truelove*

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