

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

UNILOC USA, INC; UNILOC LICENSING
USA LLC; UNILOC 2017, LLC,

Plaintiffs,

v.

AMAZON.COM, INC.; AMAZON WEB
SERVICES, INC.; AMAZON DIGITAL
SERVICES, LLC; AMAZON DIGITAL
SERVICES, INC.; AMAZON
FULFILLMENT SERVICES, INC.,

Defendants.

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§ CIVIL ACTION NO. 2:18-cv-00379
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§ PATENT CASE
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§ JURY TRIAL DEMANDED
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ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs, Uniloc USA, Inc., Uniloc Licensing USA LLC, and Uniloc 2017, LLC (together “Uniloc”), as and for their complaint against defendants, Amazon.com, Inc., Amazon Web Services, Inc., Amazon Digital Services, LLC, Amazon Digital Services, Inc., and Amazon Fulfillment Services, Inc. (together “Amazon”) allege as follows:

THE PARTIES

1. Uniloc USA, Inc. is a Texas corporation having a principal place of business at Legacy Town Center I, Suite 380, 7160 Dallas Parkway, Plano Texas 75024. Uniloc also maintains a place of business at 102 N. College, Suite 303, Tyler, Texas 75702.

2. Uniloc Licensing USA LLC is a Delaware corporation having places of business at 1209 Orange Street, Wilmington, Delaware 19801 and 620 Newport Center Drive, Newport Beach, California 92660.

3. Uniloc 2017 LLC is a Delaware corporation having places of business at 1209 Orange Street, Wilmington, Delaware 19801 and 620 Newport Center Drive, Newport Beach,

California 92660.

4. Uniloc holds all substantial rights, title and interest in and to the asserted patent.

5. On information and belief, Amazon.com, Inc. is a Delaware corporation with its principal office at 410 Terry Avenue North, Seattle, WA 98109. Amazon can be served through its registered agent, Corporation Service Company, 2711 Centerville Rd., Wilmington, DE 19808. Amazon.com is the parent company of Amazon Web Services, Inc. and the primary operator and controller of the www.amazon.com commerce website. Amazon offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas and in the judicial Eastern District of Texas. As non-limiting examples, Amazon distributes the accused products through its distribution facilities in Denton County, TX. Among other business, Amazon is in the business of manufacturing and selling electronic goods sold in this judicial district.

6. On information and belief, Defendant Amazon Digital Services, LLC is a Delaware limited liability company with a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. Amazon Digital Services, LLC can be served with process through its registered agent, the Corporation Services Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808. Defendant Amazon Digital Services, LLC resides in this judicial district. Defendant Amazon Digital Services, LLC regularly conducts business in this district.

7. On information and belief, Amazon Digital Services, Inc. is a Delaware corporation with its principal place of business at 410 Terry Avenue North, Seattle, WA98109. Amazon Digital Services, Inc. can be served through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701-3218. Defendant Amazon Digital Services, Inc. resides in this judicial district. Defendant Amazon

Digital Services, Inc. regularly conducts business in this district.

8. On information and belief, Amazon Web Services, Inc. is a Delaware corporation with a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. Amazon Web Services, Inc. can be served with process through its registered agent, Corporation Service Company, at 211 E 7st., Ste 620, Austin, TX 78701. Defendant Amazon Web Services, Inc. resides in this judicial district. Defendant Amazon Web Services, Inc. regularly conducts business in this district.

9. On information and belief, Defendant, Amazon Fulfillment Services, Inc. is a Delaware corporation with a principal office located at 410 Terry Avenue North, Seattle, Washington. Defendant, Amazon Fulfillment Services, Inc. resides in this judicial district. Defendant, Amazon Fulfillment Services, Inc. regularly conducts business in this district.

10. Amazon has a regular and established place of business in this District, including, e.g., distribution facilities, employees, and other business. For example, Amazon's property was appraised on the property tax rolls by Denton County at \$248 million and \$428,000. <https://www.dentoncad.com/api/notices/notice/699143?year=2017;> <https://www.dentoncad.com/api/notices/notice/659411?year=2017;> <https://blog.taxjar.com/amazon-warehouse-locations/> (“#DFW6 – 940 W Bethel Road Coppell, TX 75019”); <https://trustfile.avalara.com/resources/amazon-warehouselocations/>. As another example, Amazon has its Amazon Fulfillment Center FTW3-4 at 15201 Heritage Pkwy, Fort Worth, TX 76177, which is in this District. Amazon also maintains data center(s) in Dallas/Fort Worth area, which is involved in the operation of the accused instrumentalities. Amazon offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas and in this District. Amazon derives financial benefits through its business in Texas and in this District. *See, e.g.,* <http://dir.texas.gov/View->

[Search/ContractsDetail.aspx?contractnumber=DIR-TSO-2733;](#)

<https://aws.amazon.com/contractcenter/cloud-services-for-the-state-of-texas/>.¹

JURISDICTION

11. Uniloc brings this action for patent infringement under the patent laws of the United States, 35 U.S.C. § 271 *et seq.* This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12. This Court has personal jurisdiction over Amazon in this action because Amazon has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Amazon would not offend traditional notions of fair play and substantial justice. Amazon has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the asserted patent.

13. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400(b). Amazon is registered to do business in Texas, and upon information and belief, Amazon has transacted business in the Eastern District of Texas and has committed acts of direct and indirect infringement in the Eastern District of Texas. Amazon has regular and established place of business in this District, as set forth above.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 6,253,201)

14. Uniloc incorporates the preceding paragraphs above by reference.

15. U.S. Patent No. 6,253,201 (“the ’201 Patent”), entitled SCALABLE SOLUTION

¹ See also, e.g., <http://www.costar.com/News/Article/Amazon-Establishes-Austin-HQ-in-Domain-7/171852>; <http://www.datacenterknowledge.com/archives/2008/11/18/whereamazons-data-centers-are-located>; <http://www.govtech.com/computing/Texas-and-Amazon-Unite-on-Cloud-Services-Contract.html>; http://publishingext.dir.texas.gov/portal/internal/contracts-and-services/Contracts/Contract%20DIR_TSO_2733.pdf.

FOR IMAGE RETRIEVAL that issued on June 26, 2001. A true and correct copy of the '201 Patent is attached as Exhibit A hereto.

16. Pursuant to 35 U.S.C. § 282, the '201 Patent is presumed valid.

17. The '201 Patent describes inventive features that are not well-understood, routine, and conventional.

18. Amazon makes, uses, offers for sale, sells and/or imports into the United States a platform marketed under the name "Amazon Web Services" or "AWS". Products falling within this marketed family include services and platforms called "Amazon Elastic Rekognition" or "Rekognition" (e.g., <https://aws.amazon.com/rekognition>) and "Amazon Sagemaker" or "Sagemaker" (e.g., <https://aws.amazon.com/sagemaker/>). Amazon Rekognition is a visual analysis service. Users can search, verify and organize millions of images using Rekognition. Common use cases of Amazon Rekognition include making searchable image and video libraries, face-based user verification, sentiment and demographic analysis, facial recognition, unsafe content detection, celebrity detection and text detection. Amazon Sagemaker is a fully-managed platform that enables developers and data scientists to quickly and easily build, train, and deploy machine learning models at any scale. Amazon Sagemaker provides several built-in machine learning algorithms that are tailored to specific use cases like, Image Classification algorithm, Sequence2Sequence, Latent Dirichlet Algorithm (LDA) and Neural Topic Model (NTM). These services and platforms utilize and function with the Amazon Web Services platform. Collectively, such a system is the "Accused Infringing Devices".

19. The Accused Infringing Devices include various devices and platforms that utilizes the Amazon Web Services to identify images.

20. Rekognition enables creation of a searchable image library by generating labels based on image analysis. These labels are indexed using any document/database management tools

such as Elasticsearch. Amazon Rekognition enables indexing of images for use cases like Property Search using image labels/tags that are dynamically added to the ElasticSearch Database. An image is identified by Amazon Rekognition by an image identifier. The image identifier can be related to the storage location of the image. Amazon Rekognition Image operations can analyze images that are supplied as image bytes or images stored in an Amazon S3 bucket. Amazon Rekognition uses high scalable, deep learning technology for object detection. Object detection methods across the spectrum of object detection algorithms employ partitioning on the images in the form of generating candidate bounding boxes or region of interests. These methods generate classes (index values) for each region of interest (partitions). The methods alternatively generate classes (index values) for each region of interest (bounding boxes).

21. Amazon Rekognition return a list of labels/classes (or, index values) after analyzing an image. Amazon Rekognition enables creation of a searchable image library for discovering images with specific objects. Rekognition returns the labels detected in an image and allow indexing on these labels using any data management tools, like Amazon ElasticSearch. The labels are indexed within tools like ElasticSearch for retrieving images with respect to user queries.

22. Amazon Sagemaker allows quickly building and training machine learning models and deploying the models directly into production environments. Amazon Sagemaker provides object detection and classification in images, using Single Shot multibox Detector (SSD) framework. Amazon Sagemaker can be used as a substitute for Amazon Rekognition for object detection, with the enhancement that Sagemaker also enables training models with user's dataset containing custom classes for the object detection.

23. Amazon Sagemaker allows users to create searchable image library. An image needs an identifier so that it can be fetched or retrieved during searching or retrieving from input source. For example, an image can be identified by Amazon S3 location. Similar identifier can also be

related to Amazon Sagemaker. Amazon Sagemaker uses object detection algorithm for detection and classification of objects in an image. Amazon Sagemaker algorithm uses the SSD framework. In the SSD algorithm, an image is partitioned into boxes over different scales and different aspect ratios. The purpose of having different scales and different aspect ratio is that all the possible locations for an object could be evaluated irrespective of the object size and scale. Therefore, these sizes and scales are independent of the content of the image. Bounding boxes are generated for every single location, using multiple shapes and different scales. Sagemaker employs partitioning on the images in the form of generating multiple boxes, for evaluating object presence in the boxes.

24. SSD generates classes (index values) along with scores (indicating probability of presence of an object) for each region of interest (bounding boxes). The detected objects in an image are indexed with labels and bounding boxes. Amazon Sagemaker enables object detection in the same way as Amazon Rekognition. Sagemaker also allows training with user's dataset/classes. The system thus enables creation of a searchable image library by generating labels based on the image analysis. These labels are indexed using any document/database management tools such as Elasticsearch. Indexing utilizes appending of document IDs to an index. For example, Elasticsearch index API method adds (appends) JSON documents to specific indices. Thus, when a query is found to be associated with a specific index, all the documents added to that index are fetched and returned as a result set to the query-generating end-point.

25. Amazon has directly infringed, and continues to directly infringe one or more claims of the '201 Patent in the United States during the pendency of the '201 Patent, including at least claim 5 literally and/or under the doctrine of equivalents, by or through making, using, offering for sale and/or selling the Accused Infringing Devices that operate as described above.

26. In addition, should the Accused Infringing Devices be found to not literally infringe claims of the '201 Patent, use of the devices would nevertheless infringe one or more claims of the

'201 Patent. More specifically, the devices perform substantially the same function (identifying objects in an image), in substantially the same way (portioning the image and characterizing the partitions by index values) to yield substantially the same result (object identified image). Amazon would thus be liable for direct infringement under the doctrine of equivalents.

27. Amazon may have infringed the '201 Patent through other devices, systems, and software utilizing the same or reasonably similar functionality as described above. Uniloc reserves the right to discover and pursue all such additional infringing software and devices.

28. Uniloc has been damaged by Amazon's infringement of the '201 Patent.

PRAYER FOR RELIEF

Uniloc requests that the Court enter judgment against Amazon as follows:

- (A) declaring that Amazon has infringed the '201 Patent;
- (B) awarding Uniloc its damages suffered as a result of Amazon's infringement of the '201 Patent pursuant to 35 U.S.C. § 284;
- (C) awarding Uniloc its costs, attorneys' fees, expenses and interest, and
- (D) granting Uniloc such further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Uniloc hereby demands trial by jury on all issues so triable pursuant to Fed. R. Civ. P. 38.

Dated: July 31, 2018

Respectfully submitted,

By: /s/ James L. Etheridge

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