

# EXHIBIT 1

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

PERSONALWEB TECHNOLOGIES, LLC, a  
Texas limited liability company, and  
LEVEL 3 COMMUNICATIONS, LLC,  
a Delaware limited liability company,

Plaintiff,

v.

AIRBNB, INC., a Delaware corporation,  
Defendant.

**CASE NO.:**

FIRST AMENDED COMPLAINT FOR  
PATENT INFRINGEMENT

DEMAND FOR JURY TRIAL

1 Plaintiff PersonalWeb Technologies, LLC ("Plaintiff" or "PersonalWeb") files this Complaint  
2 for patent infringement against Defendant Airbnb, Inc. ("Defendant"). Plaintiff PersonalWeb  
3 Technologies, LLC alleges:

4  
5 **PRELIMINARY STATEMENT**

6 1. PersonalWeb and Level 3 Communications, LLC ("Level 3") are parties to an  
7 agreement between Kinetech, Inc. and Digital Island, Inc. dated September 1, 2000 (the "Agreement").  
8 Pursuant to the Agreement, PersonalWeb and Level 3 each own a fifty percent (50%) undivided  
9 interest in and to the patents at issue in this action: U.S. Patent Nos. ~~5,978,791~~; 6,928,442;  
10 7,802,310, 7,945,544 and 8,099,420 ("Patents-in-Suit"). Level 3 has joined in this Complaint pursuant  
11 to its contractual obligations under the Agreement, at the request of PersonalWeb.

12 2. Pursuant to the Agreement, Level 3 has, among other rights, certain defined rights to  
13 use, practice, license, sublicense and enforce and/or litigate the Patents-in-Suit in connection with a  
14 particular field of use ("Level 3 Exclusive Field"). Pursuant to the Agreement PersonalWeb has,  
15 among other rights, certain defined rights to use, practice, license, sublicense, enforce and/or litigate  
16 the Patents-in-Suit in fields other than the Level 3 Exclusive Field (the "PersonalWeb Patent Field").

17 3. All infringement allegations, statements describing PersonalWeb, statements  
18 describing any Defendant (or any Defendant's products) and any statements made regarding  
19 jurisdiction and venue are made by PersonalWeb alone, and not by Level 3. PersonalWeb alleges that  
20 the infringements at issue in this case all occur within, and are limited to, the PersonalWeb Patent  
21 Field. Accordingly, PersonalWeb has not provided notice to Level 3, ~~under~~ Section 6.4.1 of the  
22 Agreement or otherwise, ~~that~~ PersonalWeb desires to bring suit in the Level 3 Exclusive Field in its  
23 own name on its own behalf or that PersonalWeb knows or suspects that Defendant is infringing or  
24 has infringed any of Level 3's rights in the patents.

25  
26  
27  
28

**THE PARTIES**

4. Plaintiff PersonalWeb Technologies, LLC is a limited liability company duly organized and existing under the laws of Texas with its principal place of business at 112 E. Line Street, Suite 204, Tyler, TX 75702.

5. Plaintiff Level 3 Communications, LLC is a limited liability company organized under the laws of Delaware with its principal place of business at 100 CenturyLink Drive, Monroe, Louisiana, 71203.

6. PersonalWeb's infringement claims asserted in this case are asserted by PersonalWeb and all fall outside the Level 3 Exclusive Field. Level 3 is currently not asserting patent infringement in this case in the Level 3 Exclusive Field against any Defendant.

7. Defendant Airbnb, Inc. is, upon information and belief, a Delaware corporation having a principal place of business or regular and established place of business at 888 Brannan Street, San Francisco, California 94103.

**JURISDICTION AND VENUE**

8. The court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

9. Venue is proper in this federal district pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b) because Defendant is incorporated in the State of Delaware, and on information and belief, has a regular and established place of business in this District, ~~has done business in this District, and~~ has committed acts of infringement ~~in this District, and continues to commit acts of infringement in this District, entitling PersonalWeb to relief~~ in this District.

10. This court has personal jurisdiction over Defendant because, in addition to the allegations in above paragraphs, on information and belief, Defendant purposefully directed activities at residents of California, the claims herein arise out of and relate to those activities, and assertion of personal jurisdiction over Defendant would be fair.

## PERSONALWEB BACKGROUND

1  
2 ~~10.11.~~ The Patents-in-Suit cover fundamental aspects of cloud computing, including the  
3 identification of files or data and the efficient retrieval thereof in a manner which reduces bandwidth  
4 transmission and storage requirements.

5 ~~11.12.~~ The ability to reliably identify and access specific data is essential to any computer  
6 system or network. On a single computer or within a small network, the task is relatively easy: simply  
7 name the file, identify it by that name and its stored location on the computer or within the network,  
8 and access it by name and location. Early operating systems facilitated this approach with standardized  
9 naming conventions, storage device identifiers, and folder structures.

10 ~~12.13.~~ Ronald Lachman and David Farber, the inventors of the Patents-in-Suit, recognized  
11 that the conventional approach for naming, locating, and accessing data in computer networks could  
12 not keep pace with ever-expanding, global data processing networks. New distributed storage systems  
13 use files that are stored across different devices in dispersed geographic locations. These different  
14 locations could use dissimilar conventions for identifying storage devices and data partitions.  
15 Likewise, different users could give identical names to different files or parts of files—or  
16 unknowingly give different names to identical files. No solution existed to ensure that identical file  
17 names referred to the same data, and conversely, that different file names referred to different data.  
18 As a result, expanding networks could not only become clogged with duplicate data, they also made  
19 locating and controlling access to stored data more difficult.

20 ~~13.14.~~ Lachman and Farber developed a solution: ~~by~~ replacing conventional naming and  
21 storing conventions with system-wide “substantially unique,” content-based identifiers. Their  
22 approach assigned substantially unique identifiers to all “data items” of any type—~~“~~“the contents of  
23 a file, a portion of a file, a page in memory, an object in an object-oriented program, a digital message,  
24 a digital scanned image, a part of a video or audio signal, or any other entity which can be represented  
25 by a sequence of bits.” Applied system-wide, this invention would permit any data item to be stored,  
26 located, managed, synchronized, and accessed using its content-based identifier.

27 ~~14.15.~~ To create a substantially unique, content-based identifier, Lachman and Farber turned  
28 to cryptography. Cryptographic hash functions, including MD4, MD5, and SHA, had been used in

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.