

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

VILLMER LLC,	)	
	)	
Plaintiff,	)	
	)	C.A. No. : 18-1952 (RGA)
v.	)	
	)	<b>JURY TRIAL DEMANDED</b>
FACEBOOK, INC. and FACEBOOK	)	
TECHNOLOGIES LLC	)	
	)	
Defendants.	)	

**FIRST AMENDED COMPLAINT**

Plaintiff Villmer LLC (“Villmer” or “Plaintiff”) by counsel, for its First Amended Complaint against Facebook, Inc. (“Facebook”) and Facebook Technologies LLC (formerly known as Oculus VR LLC) (“Facebook Tech.”) (collectively, “Defendants”) alleges as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement under 35 U.S.C. § 271, *et seq.*
2. This action arises out of the infringing activities of Defendants in manufacturing, using, selling, offering for sale, and/or importing into the United States products that are covered by United States Patent No. 9,618,747 (“the ’747 Patent”) and/or Defendants’ activities inducing others in the United States to infringe, or contributing to infringement in the United States of the ’747 Patent.

**PARTIES**

3. Plaintiff Villmer LLC is a limited liability company organized and existing under the laws of the State of Missouri.
4. Defendant Facebook Inc. is Delaware corporation with principal place of business at 1 Hacker Way, Menlo Park, California.

5. Defendant Facebook Tech. is a Delaware limited liability company with a principal place of business at 1601 Willow Road, Menlo Park, California. Facebook Tech. is formerly known as Oculus VR LLC and is the successor to Oculus VR, Inc., which was acquired by Defendant Facebook on or about March 2014. Facebook Tech. is a wholly owned subsidiary of Facebook.

### **JURISDICTION AND VENUE**

6. This Court has proper subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338.

7. This Court has proper personal jurisdiction over Defendants because, on information and belief, Defendants regularly and systematically transact business in, and have committed acts of infringement (whether direct, contributory, and/or by inducement) in this judicial district and throughout the United States by making, using, offering to sell, and/or selling infringing products in the state of Delaware. Additionally, Defendants are incorporated in or were formed in and under the laws of the state of Delaware.

8. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because Defendants reside in this district and, on information and belief, Defendants have committed acts of infringement (whether direct, contributory, and/or by inducement) causing injury to Plaintiff in this judicial district.

### **FACTS**

9. On April 11, 2017, the United States Patent and Trademark Office issued the '747 patent, entitled "HEAD MOUNTED DISPLAY FOR VIEWING AND CREATING A MEDIA FILE INCLUDING OMNIDIRECTIONAL IMAGE DATA AND CORRESPONDING AUDIO

DATA.” to Jason Villmer. A true and correct copy of the ’747 Patent is attached hereto as Exhibit 1.

10. On or about January 27, 2017, Jason Villmer assigned the patent application that issued as the ’747 Patent to Plaintiff Villmer LLC.

11. Plaintiff Villmer is the owner of the ’747 Patent.

12. The ’747 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. Defendants manufacture, import into the United States, use, offer to sell, and/or sell products, including but not limited to, the Oculus Go and the Oculus Quest (collectively, “the Accused Products”) that infringe one or more of the Claims of the ’747 Patent.

14. The Accused Products infringe at least Claim 1 of the ’747 Patent.

15. On information and belief, the Oculus Quest is not currently available for sale to the public and Defendants are preparing to launch the Oculus Quest in Spring 2019.

16. Defendants have been on notice of the ’747 Patent and their infringing conduct since at least March 2018 when Plaintiff placed Defendants on notice of the ’747 Patent and their infringement in correspondence to representatives of Defendant Facebook and Facebook Tech. (formerly known as Oculus VR LLC and successor to Oculus VR, Inc.).

17. The correspondence to Defendants included both high-level and detailed discussions of the ’747 Patent and the Oculus Go Accused Product. Correspondence also included a copy of the ’747 Patent and detailed claim charts showing that the Accused Product satisfied every limitation of at least Claim 1 of the ’747 Patent, either literally or under the doctrine of equivalents, and exemplar marketing materials from Defendants advertising the Accused Product to consumers and/or customers. Correspondence also included exemplar

instructions from React 360, a Virtual Reality (VR) Software Development Kit (SDK) provided by Defendants to prospective buyers, buyers, end-users, consumers and/or customers, containing instructions or guides for, among other things, creating media for use in the Accused Products.

18. Since at least March 2018, Defendants have known or should have known that their conduct amounted to infringement of the '747 Patent. Since Defendants have been on notice of the '747 Patent and their infringing conduct, Defendants have continued to infringe the '747 Patent by, at a minimum, continuing to manufacture, import into the United States, use, offer to sell, and/or sell the Accused Products in the United States.

### **INFRINGEMENT OF THE '747 PATENT**

19. Plaintiff repeats and incorporates each of the allegations contained in the preceding paragraphs of this First Amended Complaint as if fully set forth herein.

20. Defendants have been and are directly infringing the '747 Patent under 35 U.S.C. § 271(a) by, without authority, making, using, offering to sell, and/or selling within the United States and/or importing into the United States the Accused Products that include all of the limitations of one or more claims of the '747 Patent, either literally or under the doctrine of equivalents.

21. Defendants have been on notice of the '747 Patent and their infringing activity since at least as early as March 2018, and have continued since that time to directly infringe as alleged herein.

22. Claim 1 of the '747 Patent claims the following:

1. A Head Mounted Display (HMD) for viewing a media file including omnidirectional image data and corresponding audio data, said HMD comprising:

a housing, said housing being configured to be worn on a user's head with one or more portions of said housing positioned in front of said user's eyes;

a computer processor, said processor being located inside the housing;

a power source;

at least one display for receiving image data from said processor and displaying said received image data to the user;

at least one speaker for receiving audio data from said processor and playing said audio data to said user;

at least one input control said input control being located on the exterior of the housing;

an orientation sensor for measuring the rotation of said HMD about its x-axis, y-axis and z-axis;

and a system memory having stored thereon computer-processor executable instructions for operating said HMD, said computer-processor executable instructions comprising instructions for displaying a media file including omnidirectional image data and corresponding audio data in a media viewer executing on said HMD via the at least one display, said instructions comprising:

executing, by the processor, a media viewer program; generating, by the processor, a three-dimensional virtual environment;

receiving, by the processor, a media file from a source device; creating, by the processor, a three-dimensional render object within the generated virtual environment;

setting, by the processor, one or more properties of the render object based on metadata contained in the media file, said properties including the shape, size and the rotation of the render object about its x-axis, y-axis, and z-axis;

applying, by the processor, the image data of the media file as a texture material to one or more surfaces of the render object;

positioning, by the processor, a virtual render camera inside the render object, said render camera defining a user view of the applied image data on one or more surfaces of the render object, said user

view determined by the rotational position of the render camera along its x-axis, y-axis, and z-axis, the render camera's zoom value and the render camera's field of view value;

displaying, by the processor, the user view to the user via the at least one display; playing, by the processor, the audio of the media file via the at least one speaker;

initiating, by the processor, a repeating render process, said render process comprising: updating, by the processor, said texture material on said render object;

receiving, by the processor, user input, said user input including at least one of the orientation sensor data and input received via the at least one input control;

changing, by the processor, one or more properties of the render object based on one or more metadata values contained in the media file, said properties including the rotation of the render object about its x-axis, y-axis, and z-axis;

changing, by the processor, one or more properties of the render camera based on received user input, said properties including at least one of the rotation of the render camera about its x-axis, y-axis, and z-axis, the render camera's zoom value and the render camera's field of view value;

changing, by the processor, one or more properties of the image data based on received user input;

changing, by the processor, one or more properties of the audio data based on received user input;

updating, by the processor, the user view being displayed to the user via the at least one display; and

updating, by the processor, the audio being played to the user via the at least one speaker.

23. Defendants, by making, using, offering to sell, and/or selling, or importing into the United States, the Accused Products, including the Oculus Go, infringe at least Claim 1 of the '747 Patent, either literally or under the doctrine of equivalents.

24. The Oculus Go is a Head Mounted Display (HMD) for viewing a media file including omnidirectional image data and corresponding audio data. An image of the Oculus Go (from [www.oculus.com/go/](http://www.oculus.com/go/)) is provided below:



25. The Oculus Go comprises a housing configured to be worn on a user's head with one or more portions of said housing positioned in front of said user's eyes.

26. The Oculus Go further comprises:

- a. a computer processor, namely the Qualcomm Snapdragon 821, located inside the housing;
- b. a power source, namely a 2600 mAh Lithium Ion Battery;
- c. a 5.5-inch 2560x1440 display for receiving image data from the processor and displaying the received image data to the user;
- d. two speakers for receiving audio data from the processor and playing the audio to the user;
- e. power and volume controls located on the exterior of the housing;

- f. an accelerometer, gyroscope and magnetometer for measuring the rotation of the HMD about its x-axis, y-axis and z-axis; and
- g. 32-64 gigabyte storage capacity, and Android operating system stored thereon, for operating the HMD.

27. The Oculus Go's system memory contains computer-processor executable instructions stored thereon that comprise instructions for displaying a media file including omnidirectional image data and corresponding audio data in a media viewer executing on its HMD via its display.

28. The Oculus Go's computer-processor executable instructions include instructions to the processor for at least the following:

- a. executing a media viewer program;
- b. generating a three-dimensional virtual environment;
- c. receiving a media file from a source device;
- d. creating a three-dimensional render object within the generated virtual environment;
- e. setting one or more properties of the render object based on metadata contained in the media file, including the shape, size, and the rotation of the render object about its x-axis, y-axis, and z-axis;
- f. applying the image data of the media file as a texture material to one or more surfaces of the render object;
- g. positioning a virtual render camera inside the render object;
- h. displaying the user view to the user via the displays; and
- i. playing the audio of the media file via the speakers.



29. The virtual render camera, positioned by the Oculus Go's computer-processor executable instructions within the render object, defines a user view of the applied image data on one or more surfaces of the render object.

30. The user view is determined by the rotational position of the render camera along its x-axis, y-axis, and z-axis, the render camera's zoom value and the field of view value.

31. The Oculus Go's computer-processor executable instructions further comprise instructions for initiating a repeating render process that comprises:

- a. updating the texture material on the render object;
- b. receiving user input from the orientation sensor data and input received via the input control;
- c. changing properties of the render object based on the metadata values contained in the media file, including the rotation of the render object about its x-axis, y-axis and z-axis;
- d. changing render properties of the render camera based on the received user input, including rotation of the render camera about its x-axis, y-axis and z-axis, the render camera's zoom value and field of view value;
- e. changing properties of the image data based on received user input;
- f. changing properties of the audio data based on received user input;
- g. updating the user view displayed; and
- h. updating the audio played to the user.

32. Upon information and belief, since at least March 2018, when Plaintiff placed Defendants on notice of the '747 Patent and their infringement, Defendants have induced and/or contributed to, and will continue to induce and/or contribute to, the infringement of the '747

Patent by others in this judicial district and elsewhere in the United States, in violation of 35 U.S.C. §§ 271(b) and/or (c).

33. Upon information and belief, Defendants have been and are inducing infringement of the '747 Patent under 35 U.S.C. § 271(b) by, without authority, advertising, promoting, marketing, directing or instructing how to use, offering to sell and/or selling the Accused Products which meet all the limitations of one or more claims of the '747 Patent, including at least Claim 1, either literally or under the doctrine of equivalents.

34. Defendants have been on notice of the '747 Patent and their infringing activity since at least as early as March 2018, and have continued since that time to induce infringement as alleged herein.

35. Upon information and belief, since at least March 2018, when Plaintiff placed Defendants on notice of the '747 Patent and their infringement, Defendants have induced, under 35 U.S.C. § 271(b), retailers, end-users, customers and/or consumers to directly infringe one or more claims of the '747 Patent. Defendants do so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '747 Patent. Upon information and belief, Defendants intend to cause infringement by these retailers, end-users, customers and/or consumers.

36. Defendants have taken affirmative steps to induce infringement by, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, holding public events, such as Oculus Connect, in order to promote and encourage the purchase and use of the Accused Products, creating an established distribution channel for these products into and within the United States, manufacturing these products, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, and/or providing technical

support, software, media, replacement parts, or services for these products to the purchasers in the United States. Upon information and belief, these customers and/or consumers do directly infringe one or more claims of the '747 Patent by using in, offering to sell or selling in, and/or importing into, the United States the Accused Products meeting each limitation of at least Claim 1 of the '747 Patent, either literally or under the doctrine of equivalents.

37. Upon information and belief, since at least March 2018, when Plaintiff placed Defendants on notice of the '747 Patent and their infringement, Defendants have contributed to, and are contributing to, direct infringement of the '747 Patent, under 35 U.S.C. § 271(c), by retailers, end-users, customers and/or consumers. Defendants do so with knowledge, or with willful blindness of the fact, that acts by retailers, end-users, customers and/or consumers constitute infringement of the '747 Patent. Upon information and belief, Defendants intend to cause infringement by these retailers, end-users, customers and/or consumers.

38. The Accused Products, including at least the Oculus Go, are offered for sale and sold to retailers, end-users, consumers and/or customers throughout the United States and within this judicial district by both brick-and-mortar and on-line retailers.

39. Upon information and belief, these retailers, end-users, customers and/or consumers do directly infringe one or more claims of the '747 Patent by using in, offering to sell or selling in, and/or importing into, the United States the Accused Products meeting each limitation of at least Claim 1 of the '747 Patent, either literally or under the doctrine of equivalents.

40. The Accused Products are especially made or especially adapted for use in an infringement of the '747 Patent and there is no substantially non-infringing use of the Accused Products.

41. Defendants knew, or should have known, that the Accused Products are especially made or especially adapted for use in an infringement of the '747 Patent and there is no substantially non-infringing use of the Accused Products.

42. The Accused Products are not staple articles or commodities of commerce suitable for substantial non-infringing use.

43. Because of Defendants' willful acts of infringement, Plaintiff has suffered, is suffering, and will continue to suffer irreparable injury unless Defendants are enjoined from continuing their unlawful infringing conduct.

44. As a result of Defendants willful infringement of the '747 Patent, Plaintiff is entitled to an award of compensatory and enhanced damages in an amount to be determined at trial.

#### **JURY TRIAL DEMAND**

Plaintiff hereby demands a trial by jury on all issues so triable.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff requests that a judgment be granted in its favor as follows:

A. That Defendants have infringed and continue to infringe one or more claims of the '747 Patent in violation of 35 U.S.C. § 271(a) through (c);

B. That Defendants and all related parties (as defined in Fed. R. Civ. P 65(d)) are enjoined from further infringement of the '747 Patent pursuant to 35 U.S.C. § 283;

C. That Defendants be ordered to account for and pay Plaintiff's actual and enhanced damages to compensate Plaintiff for Defendants acts of willful infringement pursuant to 35 U.S.C. § 284;

D. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused by Defendants infringing activities and other conduct complained of herein;

E. That this case be deemed exceptional and that Plaintiff be awarded its costs and reasonable attorneys' fees pursuant to 35 U.S.C. § 285 and other applicable statutes; and

F. That the Court grant such other and further relief as it may deem just and proper.

Dated: March 8, 2019

PHILLIPS GOLDMAN MCLAUGHLIN & HALL, P.A.

/s/ John C. Phillips, Jr.

John C. Phillips, Jr. (#110)

Megan C. Haney (#5016)

1200 North Broom Street

Wilmington, DE 19806-4204

(302) 655-4200

jcp@pgmhlaw.com

mch@pgmhlaw.com

*Attorneys for Villmer LLC*

*Of Counsel:*

Anthony G. Simon

Anthony R. Friedman

THE SIMON LAW FIRM, P.C.

800 Market Street, Ste. 1700

St. Louis, MO 63101

(314) 241-2929

asimon@simonlawpc.com

afriedman@simonlawpc.com