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9
10 **UNITED STATES DISTRICT COURT**
11 **NORTHERN DISTRICT OF CALIFORNIA**

12 NEW MILLENNIUM SOFTWARE
13 INTERNATIONAL, L.L.C.,

14 Plaintiff,

15 v.

16 STARSHIP TECHNOLOGIES, INC.
17 and STARSHIP TECHNOLOGIES OÜ,

18 Defendants.

Case No.: 3:23-cv-3287

19 **COMPLAINT FOR PATENT**
20 **INFRINGEMENT**

21 **DEMAND FOR JURY TRIAL**
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COMPLAINT FOR PATENT INFRINGEMENT

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2 1. Plaintiff New Millennium Software International, L.L.C. (“New
3 Millennium”) hereby files this Complaint for patent infringement against
4 Defendants Starship Technologies, Inc. and Starship Technologies OÜ (jointly,
5 “Starship” or “Defendants”) and alleges as follows:

6 **PLAINTIFF**

7 2. Plaintiff New Millennium is a limited liability company organized and
8 existing under the laws of the State of Maryland, having its principal place of
9 business at 14500 Antigone Drive, Gaithersburg, MD 20878.

10 3. New Millenium is a majority woman owned business.

11 4. The first-named inventor of the patent-in-suit, Mr. Stanislav
12 Zelivinski, is a co-owner of New Millennium.

13 **DEFENDANTS**

14 5. On information and belief, Defendant Starship Technologies, Inc. is a
15 corporation organized and existing under the laws of the State of Delaware having
16 its principal place of business at 535 Mission Street 17th Floor, San Francisco, CA
17 94105. Starship Technologies, Inc. is registered to do business in the State of
18 California. Starship Technologies, Inc. may be served through its registered agent,
19 Registered Agent Solutions, Inc., 720 14th Street, Sacramento, CA 95814.

20 6. On information and belief, Defendant Starship Technologies OÜ is a
21 private limited company organized and existing under the laws of Estonia having
22 its principal place of business at Estonia, Tallinn, Teaduspargi street 8, 12618.

23 **JURISDICTION AND VENUE**

24 7. This is an action under the patent laws of the United States, 35 U.S.C.
25 §§ 1, *et seq.*, for infringement by Starship of claims of U.S. Patent No. 8,831,780.

26 8. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§
27 1331 and 1338(a).
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1 9. Starship Technologies, Inc. is subject to personal jurisdiction of this
2 Court because, *inter alia*, on information and belief, (i) Starship Technologies, Inc.
3 maintains its headquarters in California in this Judicial District at 535 Mission
4 Street 17th Floor, San Francisco, CA 94105; (ii) Starship Technologies, Inc.
5 regularly conducts business in the State of California including in this Judicial
6 District; and (iii) Starship Technologies, Inc. has committed and continues to
7 commit acts of patent infringement in the State of California including in this
8 Judicial District, including by making, using, offering to sell, and/or selling
9 accused products and services in the State of California including in this Judicial
10 District.

11 10. Starship Technologies OÜ is subject to personal jurisdiction of this
12 Court because, *inter alia*, Starship Technologies OÜ has committed and continues
13 to commit acts of patent infringement in the State of California, including by
14 making, using, offering to sell, selling, and/or importing the accused products into
15 California. In addition, or in the alternative, this Court has personal jurisdiction
16 over Starship Technologies OÜ pursuant to Fed. R. Civ. P. 4(k)(2).

17 11. Venue is proper as to Starship Technologies, Inc. in this Judicial
18 District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and belief,
19 Starship Technologies, Inc. maintains a regular and established place of business in
20 this Judicial District at 535 Mission Street 17th Floor, San Francisco, CA 94105,
21 and has committed acts of patent infringement in this Judicial District and/or has
22 contributed to or induced acts of patent infringement by others in this District.

23 12. Venue is proper as to Starship Technologies OÜ in this Judicial
24 District under 28 U.S.C. § 1391(c) because, *inter alia*, Starship Technologies OÜ
25 is a foreign corporation.

26 **BACKGROUND**

27 13. On September 9, 2014, the United States Patent and Trademark Office
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1 duly and lawfully issued U.S. Patent No. 8,831,780 (“the Patent-in-Suit” or the
2 “’780 Patent”), entitled “System And Method For Creating Virtual Presence.”

3 14. At the time of the invention, conventional solutions for creating user
4 virtual experiences do not bring a true virtual experience to a user at home and do
5 not provide a sense of presence because the user cannot control or interact with the
6 system. ’780 Patent at 1:7-10, 1:41-60. There existed a strong demand for a new
7 type of a low-cost, scalable, commercially available system for providing people
8 with an ability to experience “presence” at any place on the globe remotely. *Id.* at
9 1:61-2:3.

10 15. The invention of the ’780 Patent obviates the disadvantages of
11 conventional solutions by providing a user with a real-time interactive
12 communication using a virtual presence system that allows the user to control a
13 visual presence device to provide user information about places or environments
14 thousands of miles away. *Id.* at 2:12-22. The virtual presence system of the ’780
15 Patent gives a user a sense of freedom and actual presence by enabling the user to
16 control a presence vantage point in real time. *Id.* at 2:22-25. The system of the
17 ’780 Patent provides the following advantages and benefits over conventional
18 systems: seamless and easy operation with full effect of remote presence, real-time
19 information movement using high-speed communication, flexible deployment
20 methods that minimize cost and operational expenses, concurrent information
21 delivery to multiple end-user terminals, true Virtual Presence, high usability with
22 full control, flexible yet redundant architecture allowing multiple users
23 simultaneous access with zero data loss, automated supervision of user operations,
24 and airtight end-to-end security. *Id.* at 5:20-46.

25 16. New Millennium is the assignee and owner of the right, title, and
26 interest in and to the Patent-in-Suit, including the right to assert all causes of action
27 arising under said patent and the right to any remedies for infringement.
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1 Starship's Remote Monitoring and Piloting System ("Accused System"). On
2 information and belief, Starship implemented a Teleoperated Driving (ToD)
3 solution that implements certain features of 5G Automotive Association (5GAA)
4 standards.

5 25. For example, on information and belief, Starship has infringed at least
6 claim 1 of the '780 Patent by making, using, offering to sell, or selling in the
7 United States, or importing into the United States a Global Virtual Presence (GVP)
8 system for providing a user with a virtual presence experience via a virtual reality,
9 such as Starship's Remote Monitoring and Piloting System. *See* Exs. 1-4 (showing
10 Starship's Remote Monitoring and Piloting System using delivery robots being
11 monitored and operated by remote operators over a network such as a 5G
12 network); Ex. 5 at 4 (showing Starship's Personal Delivery Device (PDD)
13 solution); Ex. 6 at 9 (listing features of Starship's Tele-Operated Driving (ToD)
14 solution). *See also* Ex. 7, Ex. 8 at 19, 66, Ex. 9 at 46, Ex. 10 (showing ToD
15 implementation details on a 5G network).

16 26. The GVP system comprises at least one virtual presence terminal
17 (VPT) configured to provide a user with a virtual presence interface. *See* Ex. 1
18 (showing Starship's ToD Operator Terminal); Ex. 6 at 21, 35, 36, Ex. 8 at 18, 19
19 (5GAA documents showing the ToD Operator is configured to provide the
20 operator with a virtual presence interface, such as a video feed, audio feed,
21 communication, and control software (*i.e.*, ToD Operator App)).

22 27. The GVP System further comprises at least one robotic virtual
23 explorer device (RVED) configured to acquire a virtual presence media, the RVED
24 is controllable by the user via the virtual presence interface. *See* Exs. 1-3, Ex. 11,
25 Ex. 12 (showing Starship's RVED (*i.e.*, Starship Robot) is configured to acquire a
26 virtual presence media, such as video feed from the RVED cameras, and is
27 controllable by the operator); Ex. 6 at 9, 21, Ex. 8 at 19 (5GAA documents
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1 showing Starship's ToD solution is configured to acquire a virtual presence media,
2 such as video streams from the vehicle's cameras, and is controllable by the
3 operator using the ToD Operator App in the VCC).

4 28. The GVP System further comprises at least one VPT Command and
5 Control Unit (CCU) connected to the VPT configured to process and send
6 operational directives and receive the virtual presence media and render the virtual
7 presence media to the user via the virtual presence interface. *See* Ex. 6 at 21, Ex.
8 7, Ex. 8 at 23, 66, 75-77, Ex. 12 (5GAA documents showing Starship's VPT CCU,
9 such as the Starship ToD Application Server (AS) connected to the VPT
10 configured (*i.e.*, via the ToD Operator app) to process and send operational
11 directives, such as trajectory and/or maneuver instructions, and receive the virtual
12 presence media and render the feedback virtual presence media to the operator via
13 the ToD Operator App).

14 29. The GVP System further comprises at least one RVED Command and
15 Control Unit (CCU) connected to the RVED configured to process and send the
16 operational directives to the RVED and receive and process the virtual presence
17 media from the RVED. *See* Ex. 8 at 23, 66, Ex. 9 at 46, Ex. 13, Ex. 14 at 23
18 (5GAA and 5GPP documents showing the RVED CCU, such as a User Plane
19 Function (UPF), is connected to the RVED via a 5G Radio Access Network (RAN)
20 Uu interface); Ex. 8 at 40, 62, 66, 75-77 (showing 5GAA RVED CCU is
21 configured to process and send the operational directives to the RVED and receive
22 and process the virtual presence media from the RVED).

23 30. In the GVP System, the VPT CCU is connected to the RVED CCU
24 over a wide area network. *See* Ex. 8 at 19, 66, Ex. 9 at 46 (5GAA documents
25 showing the VPT CCU is connected to the RVED CCU over a wide area network,
26 such as a WAN-cloud exchange (*i.e.*, Interchange), using an interface between the
27 UPF and the Public Data Network).
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1 31. In the GVP System, the user connects to the RVED via the virtual
2 presence interface and sends the operational directives to the VPT CCU. *See* Ex.
3 1, Ex. 8 at 66 (showing operator connecting to the RVED via the virtual presence
4 interface, such the ToD App, and sends operational directives to the VPT CCU).

5 32. In the GVP System, the VPT CCU sends the operational directives to
6 the RVED CCU, providing the operational directives to the RVED over a wireless
7 connection. *See* Ex. 8 at 66, Ex. 9 at 46 (5GAA and 5GPP documents showing the
8 VPT CCU, such as the ToD AS, sending the operational directives to the RVED
9 CCU, providing the operational directives to the RVED over a wireless connection,
10 *i.e.*, New Generation Radio Access Network (NG-RAN) and/or LTE RAN).

11 33. In the GVP System, the RVED acquires the virtual presence media
12 and provides it to the RVED CCU over the wireless connection, which sends it to
13 the VPT CCU over the wide area network. *See* Ex. 1, Ex. 2, Ex. 4, Ex. 8 at 19, 66,
14 Ex. 9 at 46, Exs. 15-16 (showing the RVED acquires the virtual presence media,
15 such as video with its cameras and sensors, and provides it to Starship's RVED
16 CCU over the wireless connection, which sends the video to the VPT CCU over
17 the wide area network).

18 34. In the GVP System, the VPT CCU provides the virtual presence
19 media to the VPT virtual presence interface. *See* Ex. 1, Ex. 8 at 66, (showing the
20 VPT CCU provides the virtual presence media to the VPT virtual presence
21 interface).

22 35. In the GVP System, the VPT CCU provides a virtual geo-fence being
23 mapped to a toured area containing movement of the RVED. *See* Ex. 6 at 9, Ex. 8
24 at 19-20, Ex. 12, Ex. 17, Ex. 18 (showing the Remote Monitoring and Piloting
25 System includes a virtual geo-fence, such as geo-fence mapped closed
26 environments and/or predetermined routes).

27 36. In the GVP System, the RVED being continuously controlled via
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1 virtual reality controls, and is configured to display a video feed as a virtual reality.
2 *See* Ex. 1, 2, 19 (disclosing and showing Starship's RVEDs being continuously
3 controlled via virtual reality controls and being configured to display a video feed
4 as virtual reality), Ex. 6 at 9, Ex. 8 at 56-57 (5GAA documents showing the
5 RVED is continuously controlled via virtual reality controls, such as manual take
6 over direction controls and/or markers, stop and/or ignore obstacle, and is
7 configured to display a video feed, (*i.e.*, 360-stereo video) as a virtual reality).

8 37. On information and belief, Starship has induced infringement of the
9 '780 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing,
10 directing, causing, and encouraging others, including, but not limited to, its
11 partners, resellers, distributors, customers, and end users, to make, use, sell, and/or
12 offer to sell in the United States, and/or import into the United States, the Accused
13 System by, among other things, providing the Accused System and incorporated
14 virtual presence technology, specifications, instructions, manuals, advertisements,
15 marketing materials, and technical assistance relating to the installation, set up,
16 use, operation, and maintenance of said products and services. *See, e.g.*, Exs. 1-4
17 (Starship marketing materials).

18 38. On information and belief, Starship has committed and continues to
19 commit the foregoing infringing activities without a license.

20 39. On information and belief, Starship knew the '780 Patent existed and
21 knew of an exemplary infringing Starship product while committing the foregoing
22 infringing acts thereby willfully, wantonly and deliberately infringing the '780
23 Patent.

24 **PRAYER FOR RELIEF**

25 WHEREFORE, Plaintiff New Millennium prays for the judgment in its
26 favor against Starship, and specifically, for the following relief:

27 A. Entry of judgment in favor of New Millennium against Starship on all
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counts;

B. Entry of judgment that Starship has infringed the Patent-in-Suit;

C. Entry of judgment that Starship's infringement of the Patent-in-Suit has been willful;

D. Award of compensatory damages adequate to compensate New Millennium for Starship's infringement of the Patent-in-Suit, in no event less than a reasonable royalty trebled as provided by 35 U.S.C. § 284;

E. Award of reasonable attorneys' fees and expenses against Starship pursuant to 35 U.S.C. § 285;

F. New Millennium's costs;

G. Pre-judgment and post-judgment interest on New Millennium's award; and

H. All such other and further relief as the Court deems just or equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Fed. R. Civ. P., Plaintiff New Millennium hereby demands trial by jury in this action of all claims so triable.

Respectfully Submitted,

June 30, 2023

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