# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7050165

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| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | ASSIGNMENT |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| LOON LLC | 09/01/2021 |

**RECEIVING PARTY DATA**

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|---|---|
| **Name:** | GOOGLE LLC |
| **Street Address:** | 1600 AMPHITHEATRE PARKWAY |
| **City:** | MOUNTAIN VIEW |
| **State/Country:** | CALIFORNIA |
| **Postal Code:** | 94043 |

**PROPERTY NUMBERS Total: 1**

| Property Type | Number |
|---|---|
| **Application Number:** | 17527319 |

**CORRESPONDENCE DATA**

**Fax Number:**

***Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.***

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**Correspondent Name:** BOTOS CHURCHILL IP LAW LLP
**Address Line 1:** 430 MOUNTAIN AVENUE
**Address Line 2:** SUITE 401
**Address Line 4:** NEW PROVIDENCE, NEW JERSEY 07974

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|---|---|
| **ATTORNEY DOCKET NUMBER:** | LOON 3.0F-2237 CON [9310] |
| **NAME OF SUBMITTER:** | IDA ZAZZALI |
| **SIGNATURE:** | /Ida Zazzali/ |
| **DATE SIGNED:** | 12/01/2021 |

**Total Attachments: 6**
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**Patent Assignment Agreement**

This PATENT ASSIGNMENT AGREEMENT (this **"Assignment"**) is made and entered into as of September 1, 2021 (the "**Effective Date**"), by and between Loon LLC, a Delaware Limited Liability Company (**"Assignor"**), and Google LLC, a Delaware Limited Liability Company ("**Assignee**").

WHEREAS, Assignee and Assignor or its affiliate have entered into that certain Asset Assignment Agreement, dated as of September 1, 2021 (the **"Asset Assignment Agreement"**), pursuant to which Assignor has agreed to sell, assign, and transfer to Assignee, and Assignee has agreed to buy, all of Assignor's right, title, and interest in and to the Assigned Patents;

NOW, THEREFORE, for good and valuable consideration paid by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee agree as follows:

"**Assigned Patents**" means, any and all patents and patent applications (a) listed on Schedule 1 ("Listed Patents"); (b) to which any of the Listed Patents is or reasonably should be terminally disclaimed or for which any of the foregoing forms a basis for a terminal disclaimer; (c) to which any of the foregoing in (a) and (b) claims or is entitled to claim priority, including any parent application, provisional or other priority document; (d) that are national (of any country of origin), international or multinational counterparts to any of the foregoing in (a) through (c); or (e) that claim priority to or have common priority with any of the foregoing in (a) through (d), including all continuing, divisional and continuation-in-part applications of any of the foregoing; or (f) that issue anywhere in the world from any of the patent applications in any of the foregoing (a) through (e); or (g) that arise out of any corrections, substitutions, reissues, extensions, renewals or re-examinations of any of the foregoing (a) through (f).

Assignor hereby irrevocably sells, assigns, transfers, and conveys to Assignee all right, title, and interest in and to: (a) the Assigned Patents; (b) all inventions, invention disclosures, and discoveries described in any of the Assigned Patents; (c) all rights of priority related to the Assigned Patents and rights to apply in any or all countries of the world for patents claiming any inventions, invention disclosures, and discoveries described in any of the Assigned Patents; and (d) all claims, causes of action (whether known or unknown, accrued or unaccrued, or currently pending, filed, or otherwise), provisional rights, and other enforcement rights under, or on account of, any of the Assigned Patents, including all (i) rights to pursue damages, injunctive relief, and any other remedies of any kind (including based on provisional rights) for past, current, and future infringement, and (ii) rights to collect royalties or other payments under or on account of any of the Assigned Patents.

Assignor also hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents or certificates of invention that may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee to the entire

interest therein.

This Assignment will be binding upon and will inure to the benefit of the parties and their respective successors and assigns.

This Assignment will be governed by, and construed in accordance with, the laws of the United States in respect to patent issues and in all other respects by the laws of the State of California, without reference to its choice of law principles to the contrary.

This Assignment may be executed in counterparts, each of which will be deemed an original, and all of which together constitute one and the same instrument.

[*Signatures to Follow*]

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by their respective duly authorized representatives as of the date first set forth above.

**Loon LLC (Assignor)**

By: Michael Collins

Name: Michael Collins

Title: Chief Executive Officer

**Google LLC (Assignee)**

By: Kenneth Yi

Name: Kenneth H. Yi

Title: Assistant Secretary

SCHEDULE 1

Assigned Patents

[attached.]

| IP Right | Country | Filing Date | Title | Application Number | Status |
|---|---|---|---|---|---|
| L-200172-00-PCT | WO | 12/29/2016 | SYSTEMS AND METHODS FOR ROUTING AND TOPOLOGY MANAGEM | PCT/US2016/069226 | Lapsed |
| L-200172-00-US | US | 4/25/2016 | SYSTEMS AND METHODS FOR ROUTING AND TOPOLOGY MANAGEM | 15/137,747 | In Force |
| L-200172-00-US-CON | US | 1/7/2019 | SYSTEMS AND METHODS FOR ROUTING AND TOPOLOGY MANAGEM | 16/241,351 | Allowed |
| L-200172-00-US-CON2 | US | 2/24/2021 | SYSTEMS AND METHODS FOR ROUTING AND TOPOLOGY MANAGEM | 17/183,667 | Pending |
| L-200173-00-US | US | 3/16/2016 | SYSTEMS AND METHODS FOR IMPROVING TOLERANCE OF DELAY AN | 15/071,969 | In Force |
| L-200173-00-US-RE1 | US | 3/20/2020 | SYSTEMS AND METHODS FOR IMPROVING TOLERANCE OF DELAY AN | 16/825,402 | Pending |
| L-200173-00-US-RE2 | US | 3/20/2020 | SYSTEMS AND METHODS FOR IMPROVING TOLERANCE OF DELAY AN | 16/825,467 | Pending |
| L-50372-00-US | US | 7/12/2017 | Method and system for delivering content over transient access netw | 15/647,811 | In Force |
| L-50372-00-US-CON | US | 3/25/2020 | Method and System for Delivering Content Over Transient Access Ne | 16/829,002 | Allowed |
| L-50422-00-AU | AU | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 2018258169 | In Force |
| L-50422-00-AU-DIV | AU | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 2020289788 | Pending |
| L-50422-00-CA | CA | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 3059957 | Pending |
| L-50422-00-EP | EP | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 18790338 | Pending |
| L-50422-00-JP | JP | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 2019-556223 | Pending |
| L-50422-00-KR | KR | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 10-2019-7031660 | In Force |
| L-50422-00-KR-DIV | KR | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 10-2021-7016816 | Pending |
| L-50422-00-SG | SG | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 11201909354X | Pending |
| L-50422-00-US | US | 4/26/2017 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 15/497,738 | In Force |
| L-50422-00-US-CON | US | 12/27/2017 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 15/854,981 | In Force |
| L-50422-00-US-CON2 | US | 7/3/2019 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 16/502,448 | In Force |
| L-50422-00-US-CON3 | US | 9/25/2020 | Temporospatial Software-Defined Networking For Ngso Satellite Net | 17/031,961 | Pending |
| L-50422-00-WO | WO | 4/25/2018 | Temporospatial Software-Defined Networking For Ngso Satellite Net | PCT/US2018/029385 | Lapsed |
| L-50422-01-PR | US | 5/26/2017 | TEMPOROSPATIAL SOFTWARE-DEFINED NETWORKING FOR NGSO SA | 62/511,377 | Lapsed |
| L-50422-01-US | US | 4/17/2018 | TEMPOROSPATIAL SOFTWARE-DEFINED NETWORKING FOR NGSO SA | 15/954,922 | In Force |
| L-50422-01-US-CON | US | 6/18/2019 | TEMPOROSPATIAL SOFTWARE-DEFINED NETWORKING FOR NGSO SA | 16/444,620 | In Force |
| L-50422-01-US-CON2 | US | 11/25/2020 | TEMPOROSPATIAL SOFTWARE-DEFINED NETWORKING FOR NGSO SA | 17/104,162 | Pending |
| L-50628-00-US | US | 12/30/2020 | Hybrid SDN and MANET Routing In Mesh Networks | 17/138,019 | Pending |
| L-50862-00-AU | AU | 3/1/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 2019231093 | In Force |
| L-50862-00-AU-DIV | AU | 3/1/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 2020294343 | Pending |
| L-50862-00-CA | CA | 3/1/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 3093368 | Pending |
| L-50862-00-EP | EP | 3/1/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 19763740.8 | Pending |

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|---|---|---|---|---|---|
| L-50862-00-US | US | 3/9/2018 | Hybrid LEO/HAPS constellation for fixed broadband | 15/916,646 | In Force |
| L-50862-00-US-CON | US | 1/18/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 16/251,632 | In Force |
| L-50862-00-US-CON2 | US | 12/17/2019 | Hybrid LEO/HAPS constellation for fixed broadband | 16/717,519 | In Force |
| L-50862-00-WO | WO | 3/1/2019 | Hybrid LEO/HAPS constellation for fixed broadband | PCT/US2019/20215 | Lapsed |
| L-50987-00-US | US | 12/17/2018 | Operation Of Sectorized Communications From Aerospace Platforms | 16/222,407 | In Force |
| L-50987-00-US-CON | US | 10/4/2019 | Operation Of Sectorized Communications From Aerospace Platforms | 16/593,536 | In Force |
| L-50987-00-US-CON2 | US | 11/3/2020 | Operation Of Sectorized Communications From Aerospace Platforms | 17/087,933 | Pending |
| L-50987-00-WO | WO | 12/11/2019 | Operation Of Sectorized Communications From Aerospace Platforms | PCT/US2019/65710 | Pending |
| L-52015-00-PR | US | 5/16/2019 | METHOD AND SYSTEM FOR NON-INTERFERENCE OF MILLIMETER WA | 62/848,801 | Lapsed |
| L-52019-00-US | US | 9/9/2019 | Integrated Access and Backhaul from HAPs | 16/565,087 | In Force |
| L-52019-00-US-CON | US | 12/15/2020 | Integrated Access and Backhaul from HAPs | 17/122,104 | Pending |
| L-52019-00-WO | WO | 9/2/2020 | Integrated Access and Backhaul from HAPs | PCT/US2020/049038 | Pending |
| L-52020-00-PR | US | 9/13/2019 | METHODS AND SYSTEMS FOR IMPLEMENTING 5G NR USING NON-TE | 62/900,090 | Lapsed |
| L-52020-01-PR | US | 2/21/2020 | HANDOVER COORDINATION FOR LARGE AREA COVERAGE | 62/979,544 | Pending |
| L-52020-01-PR2 | US | 7/15/2020 | HANDOVER COORDINATION FOR LARGE AREA COVERAGE | 63/052,113 | Pending |
| L-52020-01-US | US | 9/11/2020 | HANDOVER COORDINATION FOR LARGE AREA COVERAGE | 17/018,855 | Pending |
| L-52020-01-WO | WO | 9/10/2020 | HANDOVER COORDINATION FOR LARGE AREA COVERAGE | PCT/US2020/050215 | Pending |
| L-52020-02-PR | US | 2/21/2020 | DISTRIBUTED ACCESS AND/OR BACKHAUL FOR NON-TERRESTRIAL NC | 62/979,527 | Pending |
| L-52020-02-US | US | 9/11/2020 | DISTRIBUTED ACCESS AND/OR BACKHAUL FOR NON-TERRESTRIAL NC | 17/018,892 | Pending |
| L-52020-02-WO | WO | 9/10/2020 | DISTRIBUTED ACCESS AND/OR BACKHAUL FOR NON-TERRESTRIAL NC | PCT/US2020/050230 | Pending |
| L-52020-03-US | US | 9/11/2020 | DYNAMIC SPECTRUM SHARING BETWEEN COVERAGE TYPES | 17/018,542 | Pending |
| L-52020-03-WO | WO | 9/14/2020 | DYNAMIC SPECTRUM SHARING BETWEEN COVERAGE TYPES | PCT/US2020/050667 | Pending |
| L-52020-04-US | US | 9/11/2020 | USER EQUIPMENT LOCATION DETERMINATION USING DIFFERENT CO | 17/018,631 | In Force |
| L-52020-04-US-CON | US | 5/19/2021 | USER EQUIPMENT LOCATION DETERMINATION USING DIFFERENT CO | 17/324,697 | Pending |
| L-52020-04-WO | WO | 9/14/2020 | USER EQUIPMENT LOCATION DETERMINATION USING DIFFERENT CO | PCT/US2020/050674 | Pending |
| L-52030-00-US | US | 12/16/2019 | NETWORKING WITH HAPS AND ADDITIONAL GROUND-BASED NODES | 16/715,775 | Pending |
| L-52034-00-US | US | 1/11/2021 | TEMPOROSPATIAL, SOFTWARE-DEFINED MARITIME NETWORK USINC | 17/146,107 | Pending |