

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3966628

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	PATENT SECURITY AGREEMENT

**CONVEYING PARTY DATA**

Name	Execution Date
GOGO LLC	06/14/2016

**RECEIVING PARTY DATA**

<b>Name:</b>	U.S. BANK NATIONAL ASSOCIATION, AS COLLATERAL AGENT
<b>Street Address:</b>	190 S. LASALLE STREET, 10TH FLOOR
<b>Internal Address:</b>	MK-IL-SLTR
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60603

**PROPERTY NUMBERS Total: 68**

Property Type	Number
Patent Number:	6799037
Patent Number:	7640016
Patent Number:	7689752
Patent Number:	7702328
Patent Number:	7920860
Patent Number:	8032135
Patent Number:	8060083
Patent Number:	8068829
Patent Number:	8073443
Patent Number:	8078163
Patent Number:	8081969
Patent Number:	8081968
Patent Number:	8140732
Patent Number:	8145208
Patent Number:	8185040
Patent Number:	8498641
Patent Number:	8700032
Patent Number:	9258432
Patent Number:	9232546

PATENT

<b>Property Type</b>	<b>Number</b>
Patent Number:	9287999
Patent Number:	9197314
Patent Number:	9088613
Patent Number:	9087193
Patent Number:	8982562
Patent Number:	9147065
Patent Number:	8934893
Patent Number:	8442519
Patent Number:	8457627
Patent Number:	8452276
Patent Number:	8914022
Patent Number:	8447292
Patent Number:	8995993
Patent Number:	9326217
Application Number:	13588903
Application Number:	13675200
Application Number:	14177863
Application Number:	14209698
Application Number:	14225017
Application Number:	14209713
Application Number:	14224859
Application Number:	14340921
Application Number:	14530409
Application Number:	14530423
Application Number:	14267563
Application Number:	14267400
Application Number:	14291511
Application Number:	14291979
Application Number:	14291878
Application Number:	14292035
Application Number:	14307228
Application Number:	14309342
Application Number:	14312413
Application Number:	14320966
Application Number:	14320970
Application Number:	90012810
Application Number:	14754046
Application Number:	14797461

Property Type	Number
Application Number:	14876542
Application Number:	14995459
Application Number:	15014333
Application Number:	14912834
Application Number:	15075032
Application Number:	15079953
Application Number:	15090026
Application Number:	15092844
Application Number:	15092884
Application Number:	15150576
Application Number:	15170649

**CORRESPONDENCE DATA**

**Fax Number:** (714)755-8290  
*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.*  
**Email:** IPDOCKET@LW.COM, KRISTIN.AZCONA@LW.COM  
**Correspondent Name:** LATHAM & WATKINS LLP  
**Address Line 1:** 650 TOWN CENTER DRIVE, SUITE 2000  
**Address Line 4:** COSTA MESA, CALIFORNIA 92626

<b>ATTORNEY DOCKET NUMBER:</b>	042742-0025
<b>NAME OF SUBMITTER:</b>	KRISTIN J AZCONA
<b>SIGNATURE:</b>	/KJA/
<b>DATE SIGNED:</b>	07/18/2016

**Total Attachments: 8**  
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**PATENT SECURITY AGREEMENT**

This **PATENT SECURITY AGREEMENT**, dated as of June 14, 2016 (this “Agreement”), is made by the signatory hereto indicated as a “Grantor” (the “Grantor”) in favor of U.S. BANK NATIONAL ASSOCIATION, as Collateral Agent for the Priority Lien Secured Parties (in such capacity and, together with its permitted successors and assigns in such capacity, the “Collateral Agent”).

**WHEREAS**, the Grantor entered into a Collateral Agreement dated as of June 14, 2016 (as amended, restated, supplemented or otherwise modified from time to time, the “Collateral Agreement”) among the Grantor, the Collateral Agent and the other persons party thereto, pursuant to which the Grantor granted to the Collateral Agent, for the benefit of the Priority Lien Secured Parties, a security interest in the Patent Collateral (as defined below); and

**WHEREAS**, pursuant to the Collateral Agreement, Grantor agreed to execute this Agreement, in order to record the security interest granted to the Collateral Agent for the benefit of the Priority Lien Secured Parties with the United States Patent and Trademark Office.

**NOW, THEREFORE**, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor hereby agrees with the Collateral Agent as follows:

**SECTION. 1. Defined Terms**

Capitalized terms used but not defined herein shall have the respective meanings given thereto in the Collateral Agreement, and if not defined therein, shall have the respective meanings given thereto in the Collateral Agency Agreement referred to therein.

**SECTION 2. Notice and Confirmation of Grant of Security Interest.**

Grantor hereby confirms the grant in the Collateral Agreement to the Collateral Agent, for the benefit of the Priority Lien Secured Parties, of a security interest in, all of the following property, in each case, wherever located and now owned or at any time hereafter acquired by Grantor or in which Grantor now has or at any time in the future may acquire any right, title or interest (collectively, the “Patent Collateral”) as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of Grantor’s Priority Lien Obligations:

All of Grantor’s right, title and interest in and to all patentable inventions and designs, all United States, foreign, and multinational patents, certificates of invention, and similar industrial property rights, and applications for any of the foregoing, including without limitation: (i) each patent and patent application listed in Schedule A attached hereto (ii) all reissues, substitutes, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (iii) all inventions and improvements described and claimed therein, (iv) all rights to sue or otherwise recover for any past, present and future infringement or other violation thereof, (v) all Proceeds of the foregoing, including, without limitation, license fees, royalties, income, payments, claims, damages, and proceeds of suit now or hereafter due and/or payable with respect thereto, income, royalties, damages and other payments now and hereafter due and/or payable with respect thereto, and (vi) all other patent rights accruing thereunder or pertaining thereto throughout the world.

**SECTION 3. Collateral Agreement and Collateral Agency Agreement**

The security interest confirmed pursuant to this Agreement is confirmed in conjunction with the security interest granted to the Collateral Agent for the Priority Lien Secured Parties pursuant to the Collateral Agreement, and the Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Collateral Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Agreement is deemed to conflict with the Collateral Agreement or the Collateral Agency Agreement, the provisions of the Collateral Agreement or the Collateral Agency Agreement, as applicable, shall control.

**SECTION 4. Governing Law**

**THIS AGREEMENT AND ANY DISPUTE, CLAIM OR CONTROVERSY ARISING OUT OF OR RELATING TO THIS AGREEMENT (WHETHER ARISING IN CONTRACT, TORT OR OTHERWISE) SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICTS OF LAW RULES THAT WOULD RESULT IN THE APPLICATION OF A DIFFERENT GOVERNING LAW (OTHER THAN ANY MANDATORY PROVISIONS OF THE UCC RELATING TO THE LAW GOVERNING PERFECTION AND EFFECT OF PERFECTION OR PRIORITY OF THE SECURITY INTERESTS).**

**SECTION 5. Counterparts**


This Agreement may be executed in one or more counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts together shall constitute but one and the same instrument.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Grantor has caused this Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

GOGO LLC,  
as Grantor

By: \_\_\_\_\_

  
Name: Norman Smagley

Title: Executive Vice President, Chief  
Financial Officer and Assistant  
Secretary

[Signature Page to the Patent Security Agreement]

**PATENT**  
**REEL: 039381 FRAME: 0489**

Accepted and Agreed:

**U.S. BANK NATIONAL ASSOCIATION, as Collateral Agent**

By: *Linda Garcia*

Name: **Linda E. Garcia**  
Title: **Vice President**

[Signature Page to the Patent Security Agreement]

**PATENT**  
**REEL: 039381 FRAME: 0490**

**SCHEDULE A  
to  
PATENT SECURITY AGREEMENT**

**PATENTS AND PATENT APPLICATIONS**

**Gogo LLC U.S. Issued Patents**

<b>Title</b>	<b>Appl. No.</b>	<b>Appl. Date</b>	<b>Patent No.</b>	<b>Issue Date</b>
METHOD AND APPARATUS FOR COMMUNICATION WITH A MOBILE UNIT	08/988,457	12/10/1997	6,799,037	08/06/2002
AIR-TO-GROUND CELLULAR NETWORK FOR DECK-TO-DECK CALL COVERAGE	11/240,975	09/30/2005	7,640,016	12/29/2009
CABIN TELECOMMUNICATION UNIT	10/241,723	09/11/2002	7,689,752	03/30/2010
SYSTEM FOR HANDOFF OF AIRCRAFT-BASED CONTENT DELIVERY TO ENABLE PASSENGERS TO RECEIVE THE REMAINDER OF A SELECTED CONTENT FROM A TERRESTRIAL LOCATION	12/021,133	01/28/2008	7,702,328	04/20/2010
SYSTEM FOR MANAGING THE MULTIPLE AIR-TO-GROUND COMMUNICATIONS LINKS ORIGINATING FROM EACH AIRCRAFT IN AN AIR-TO-GROUND CELLULAR COMMUNICATION NETWORK	11/590,709	10/31/2006	7,920,860	04/05/2011
SYSTEM FOR TRANSMITTING WIRELESS HIGH-SPEED DATA SIGNALS BETWEEN A TERRESTRIAL-BASED ANTENNA AND AN AIRCRAFT	10/378,203	03/03/2003	8,032,135	10/04/2011
SYSTEM FOR MANAGING AN AIRCRAFT-ORIGINATED EMERGENCY SERVICES CALL IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/182,834	07/30/2008	8,060,083	11/15/2011
SYSTEM FOR CUSTOMIZING ELECTRONIC SERVICES FOR DELIVERY TO A PASSENGER IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/021,169	01/28/2008	8,068,829	11/29/2011
SIP CLIENT-BASED LOCAL NUMBER PORTABILITY THROUGH AN AIRCRAFT AIR-TO-GROUND LINK	12/423,555	04/14/2009	8,073,443	12/06/2011
SYSTEM FOR CUSTOMIZING ELECTRONIC CONTENT FOR DELIVERY TO A PASSENGER IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/021,125	01/28/2008	8,078,163	12/13/2011
SYSTEM FOR CREATING AN AIRCRAFT-BASED INTERNET PROTOCOL SUBNET IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/060,662	04/01/2008	8,081,969	12/20/2011
SYSTEM FOR CREATING AN AIR-TO-GROUND IP TUNNEL IN AN AIRBORNE WIRELESS CELLULAR NETWORK TO DIFFERENTIATE INDIVIDUAL PASSENGERS	12/060,674	04/01/2008	8,081,968	12/20/2011
CABIN TELECOMMUNICATION UNIT	12/707,070	09/11/2002	8,140,732	3/20/2012
AIR-TO-GROUND CELLULAR COMMUNICATION NETWORK TERRESTRIAL BASE STATION HAVING MULTI-DIMENSIONAL SECTORS WITH ALTERNATING RADIO FREQUENCY POLARIZATIONS	11/590,146	10/31/2006	8,145,208	03/27/2012
SYSTEM FOR MANAGING VOICE OVER INTERNET PROTOCOL COMMUNICATIONS IN A NETWORK	12/029,298	02/11/2008	8,185,040	05/22/2012
METHOD AND APPARATUS FOR COMMUNICATION WITH A MOBILE UNIT	11/100,753	04/07/2005	8,498,641	07/30/2013



Title	Appl. No.	Appl. Date	Patent No.	Issue Date
SYSTEM FOR TRANSMITTING WIRELESS HIGH-SPEED DATA SIGNALS BETWEEN A TERRESTRIAL-BASED ANTENNA AND AN AIRCRAFT	13/222,722	08/31/2011	8,700,032	04/15/2015
DYNAMIC TIME BASED PRODUCTS	14/291,562	05/30/2014	9,258,432	02/09/2016
SYSTEMS AND METHODS FOR TWO-PART ELECTRONIC DEVICE REGISTRATION	14/291,558	05/30/2014	9,232,546	01/05/2016
MESH NETWORK BASED AUTOMATED UPLOAD OF CONTENT TO AIRCRAFT	14/553,641	11/25/2014	9,287,999	03/15/2016
DATA DELIVERY TO DEVICES ON VEHICLES USING MULTIPLE FORWARD LINKS	14/225,050	03/25/2014	9,197,314	11/24/2015
GROUND SYSTEM FOR VEHICLE DATA DISTRIBUTION	13/675,190	11/13/2012	9,088,613	07/21/2015
COMMUNICATION SYSTEM AND METHOD FOR NODES ASSOCIATED WITH A VEHICLE	13/675,194	11/13/2012	9,087,193	07/21/2015
LINE REPLACEABLE UNIT WITH UNIVERSAL HEAT SINK RECEPTACLE	13/799,869	03/13/2013	8,982,562	03/17/2015
DETERMINING HUMAN STIMULI AT COMPUTING DEVICES	13/781,841	03/01/2013	9,147,065	09/29/2015
MESH NETWORK BASED AUTOMATED UPLOAD OF CONTENT TO AIRCRAFT	13/544,742	07/09/2012	8,934,893	01/13/2015
SPECTRUM SHARING BETWEEN AN AIRCRAFT-BASED AIR-TO-GROUND COMMUNICATION SYSTEM AND EXISTING GEOSTATIONARY SATELLITE SERVICES	13/172,539	06/29/2011	8,442,519	05/14/2013
TRAFFIC SCHEDULING SYSTEM FOR WIRELESS COMMUNICATIONS	13/009,579	01/19/2011	8,457,627	06/4/2013
DIFFERENTIATED SERVICES CODE POINT MIRRORING FOR WIRELESS COMMUNICATIONS	13/009,687	01/19/2011	8,452,276	05/28/2013
SYSTEM FOR PROVIDING HIGH SPEED COMMUNICATIONS SERVICE IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/137,995	06/12/2008	8,914,022	12/16/2014
MULTI-LINK AIRCRAFT CELLULAR SYSTEM FOR SIMULTANEOUS COMMUNICATION WITH MULTIPLE TERRESTRIAL CELL SITES	11/590,379	10/31/2006	8,447,292	05/21/2013
SYSTEM FOR MANAGING MOBILE INTERNET PROTOCOL ADDRESSES IN AN AIRBORNE WIRELESS CELLULAR NETWORK	12/060,645	04/01/2008	8,995,993	3/31/2015
OPTIMIZING USAGE OF MODEMS FOR DATA DELIVERY TO DEVICES ON VEHICLES	14/225,077	03/25/2014	9,326,217	04/26/2016

### Gogo LLC U.S. Patent Applications

Title	Appl. No.	Appl. Date	Pub. No.	Pub. Date
SYSTEM FOR PROVIDING TEMPORARY INTERNET ACCESS FROM A RESTRICTED LOCAL AREA NETWORK ENVIRONMENT	13/588,903	08/17/2012	2014/0053243	02/20/2014
VEHICLE DATA DISTRIBUTION SYSTEM AND METHOD	13/675,200	11/13/2012	2014/0136658	05/15/2014
MULTIPLE ANTENNA SYSTEM AND METHOD FOR MOBILE PLATFORMS	14/177,863	02/11/2014	2014/0225767	08/14/2014
RADOME HAVING LOCALIZED AREAS OF REDUCED RADIO SIGNAL ATTENUATION	14/209,698	03/13/2014	2015/0130671	05/14/2015
HYBRID COMMUNICATIONS FOR DEVICES ON VEHICLES	14/225,017	03/25/2014	2015/0131513	05/14/2015
RADOME HAVING LOCALIZED AREAS OF REDUCED RADIO SIGNAL ATTENUATION	14/209,713	03/13/2014	2015/0130672	05/14/2015
ADAPTIVE MODULATION IN A HYBRID VEHICLE COMMUNICATION SYSTEM	14/224,859	03/25/2014	2015/0131512	05/14/2015

Title	Appl. No.	Appl. Date	Pub. No.	Pub. Date
SYSTEM FOR MANAGING MOBILE INTERNET PROTOCOL ADDRESSES IN AN AIRBORNE WIRELESS CELLULAR NETWORK	14/340,921	07/25/2014	2014/0334379	11/13/2014
AUTONONMOUS-MODE CONTENT DELIVERY AND KEY MANAGEMENT	14/530,409	10/31/2014	Not yet published	Not yet published
RESUMPTION OF PLAY FOR A CONTENT-DELIVERY SESSION	14/530,423	10/31/2014	Not yet published	Not yet published
SYSTEMS AND METHODS FOR FACILITATING VOICE-BASD COMMUNICATIONS	14/267,563	05/01/2014	2015/0319301	11/05/2015
SYSTEMS AND METHODS FOR NOTIFYING ELECTRONIC DEVICES OF VOICE-BASED COMMUNICATION REQUESTS	14/267,400	05/01/2014	2015/0319300	11/05/2015
SYSTEMS AND METHODS FOR CONFIGURING AN ELECTRONIC DEVICE FOR CALLING CELLULAR BASED COMMUNICATIONS	14/291,511	05/30/2014	2015/0133116	05/14/2015
SYSTEMS AND METHODS FOR COMMUNICATIONS WITH NON- TERRESTRIAL ELECTRONIC DEVICES	14/291,979	05/30/2014	2015/0351066	12/03/2015
SYSTEMS AND METHODS FOR FACILITATING COMMUNICATIONS ORIGINATING FROM A NON-TERRESTRIAL NETWORK	14/291,878	05/30/2014	2015/0350996	12/03/2015
SYSTEMS AND METHODS FOR FACILITATING COMMUNICATIONS DESTINED FOR A NON-TERRESTRIAL NETWORK	14/292,035	05/30/2014	2015/0349875	12/03/2015
MULIPLE MODM COMMUNICATION SYSTEM AND METHOD FOR MOBILE PLATFORM	14/307,228	06/17/2014	2015/0365870	12/17/2015
DATA CACHING IN A HYBRID COMMUNICATIONS SYSTEM	14/309,342	06/19/2014	2015/0134754	05/14/2015
SYSTEMS AND METHODS FOR FACILITATING VOICE AND MESSANGING COMMUNICATIONS VIA VARIOUS NETWORKS	14/312,413	06/23/2014	2015/0131519	05/14/2015
DELAYED DISK RECOVERY	14/320,966	07/01/2014	2016/0004586	01/07/2016
CONTENT INTEGRITY CHECKS	14/320,970	07/01/2014	2016/0006807	01/07/2016
MOBILE TELE-COMPUTER NETWORK FOR MOTION PICTURE, TELEVISION AND TV ADVERTISING PRODUCTION	90/012,810	7/TBD/2014	Not yet published	Not yet published
COMMUNICATIONS SYSTEMS AND METHODS FOR NODES ASSOCIATED WITH A VEHICLE	14/754,046	06/29/2015	2015/0319248	11/05/2015
GROUND SYSTEM FOR VEHICLE DATA DISTRIBUTION	14/797,461	07/13/2015	2015/0319073	11/05/2015
DATA DELIVERY TO DEVICES ON VEHICLES USING MULTIPLE FORWARD LINKS	14/876,542	10/06/2015	2016/0036517	02/04/2016
DYNAMIC TIME BASED PRODUCT	14/995,459	01/14/2016	Not yet published	Not yet published
MESH NETWORK BASED AUTOMATED UPLOAD OF CONTENT TO AIRCRAFT	15/014,333	02/03/2016	Not yet published	Not yet published
FEATURE TRANSPARENCY FOR WIRELESS DEVICES	14/912,834	02/18/2016	Not yet published	Not yet published
OPTIMIZING USAGE OF MODEMS FOR DATA DELIVERY TO DEVICES ON VEHICLES	15/075,032	03/18/2016	Not yet published	Not yet published
SYSTEMS AND METHODS FOR FACILITATING COMMUNICATIONS DESTINED FOR A NON-TERRESTRIAL NETWORK	15/079,953	03/24/2016	Not yet published	Not yet published
PRESENCE-BASED NETWORK AUTHENTICATION	15/090,026	04/04/2016	Not yet published	Not yet published
SYSTEMS AND METHODS FOR ON-BOARD ACCESS CONTROL	15/092,844	04/07/2016	Not yet published	Not yet published

Title	Appl. No.	Appl. Date	Pub. No.	Pub. Date
SYSTEMS AND METHODS FOR AUTHENTICATING APPLICATIONS TO ON-BOARD SERVICES	15/092,884	04/07/2016	Not yet published	Not yet published
HYBRID COMMUNICATIONS FOR DEVICES ON VEHICLES	15/150,576	5/10/2016	Not yet published	Not yet published
SYSTEMS AND METHODS FOR AVERTING UNSANCTIONED ACCESS TO ON-BOARD VEHICLE NETWORKS	15/170,649	6/1/2016	Not yet published	Not yet published