

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

EPAS ID: PAT2973248

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

**CONVEYING PARTY DATA**

Name	Execution Date
ALCATEL LUCENT USA, INC.	08/06/2014

**RECEIVING PARTY DATA**

<b>Name:</b>	Credit Suisse AG
<b>Street Address:</b>	11 Madison Avenue
<b>City:</b>	New York
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10010

**PROPERTY NUMBERS Total: 47**

Property Type	Number
Application Number:	14315909
Application Number:	14315454
Application Number:	14315970
Application Number:	14314570
Application Number:	14314724
Application Number:	14312887
Application Number:	14310496
Application Number:	14310548
Application Number:	14308756
Application Number:	14307007
Application Number:	14305774
Application Number:	14300625
Application Number:	14295383
Application Number:	14296089
Application Number:	14296011
Application Number:	14292168
Application Number:	14290470
Application Number:	14285917
Application Number:	14283549
Application Number:	14120316
Application Number:	14276512

PATENT

Property Type	Number
Application Number:	14278887
Application Number:	14276669
Application Number:	14269673
Application Number:	14265993
Application Number:	14266086
Application Number:	14266285
Application Number:	14265987
Application Number:	14266015
Application Number:	14261957
Application Number:	14261519
Application Number:	14259688
Application Number:	14259949
Application Number:	14258207
Application Number:	14258198
Application Number:	14257531
Application Number:	14257672
Application Number:	14256514
Application Number:	14250978
Application Number:	14247470
Application Number:	14247595
Application Number:	14247565
Application Number:	14246662
Application Number:	14245103
Application Number:	14242161
Application Number:	14230501
Application Number:	14230937

**CORRESPONDENCE DATA**

**Fax Number:** (212)446-4900

*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.*

**Phone:** 2124464800

**Email:** hayley.smith@kirkland.com

**Correspondent Name:** EDWARD SADTLER

**Address Line 1:** KIRKLAND & ELLIS LLP

**Address Line 2:** 601 LEXINGTON AVENUE

**Address Line 4:** NEW YORK, NEW YORK 10022

<b>NAME OF SUBMITTER:</b>	HAYLEY SMITH
<b>SIGNATURE:</b>	//Hayley Smith//
<b>DATE SIGNED:</b>	08/07/2014

**Total Attachments: 8**

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## SUPPLEMENTAL U.S. PATENT SECURITY AGREEMENT

THIS SUPPLEMENTAL PATENT SECURITY AGREEMENT, dated as of August 6, 2014 (this "Agreement"), is made by Alcatel-Lucent USA Inc. (the "Grantor"), in favor of Credit Suisse AG, as collateral agent for the Secured Parties (in such capacity, including any successor thereto in such capacity, the "Collateral Agent").

### WITNESSETH:

WHEREAS, the Grantor entered into a Pledge and Security Agreement dated as of January 30, 2013 (as it may be amended, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), by and among the Grantor and each of the other grantors from time to time party thereto and the Collateral Agent, pursuant to which the Grantor, among others, agreed to guarantee the Obligations (as defined in the Credit Agreement) of the Borrower;

WHEREAS, pursuant to the Security Agreement, the Grantor, among other things, granted a lien on and security interest in the Collateral, which includes, without limitation, certain Intellectual Property of the Grantor acquired after January 15, 2013 (the "After-Acquired IP"); and

WHEREAS, pursuant to the Security Agreement, the Grantor agreed to execute and deliver this Agreement in order to record the security interest granted to the Collateral Agent in certain After-Acquired IP for the benefit of the 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 are 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 Security Agreement.

Section 2. Grant of Security Interest. The Grantor grants to the Collateral Agent, for the benefit of the Secured Parties, a security interest in and continuing lien on all of such Grantor's right, title and interest in, to and under all of the following property of such Grantor, in each case, whether now or hereafter existing or in which any such Grantor now has or hereafter acquires an interest (collectively, the "Patent Collateral") as collateral security for the prompt and complete payment or performance in full when due, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise (including the payment of amounts that would become due but for the operation of the automatic stay under Section 362(a) of the Bankruptcy Code, 11 U.S.C. § 362(a) (and any successor provision thereof)), of all Obligations (as defined in the Credit Agreement):

all United States patents and certificates of invention, and applications for any of the foregoing, including, without limitation: (a) each patent and patent application listed on Schedule A attached hereto, (b) all reissues, divisionals, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (c) the right to sue or otherwise

recover for any past, present and future infringement or other violation thereof, (d) 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, and (e) all other rights corresponding thereto under applicable law.

Section 3. Security Agreement. The security interest granted pursuant to this Agreement is granted in conjunction with the security interest granted to the Collateral Agent for the Secured Parties pursuant to the Security 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 Security 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 Security Agreement, the provisions of the Security Agreement shall control.

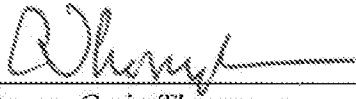
Section 4. Governing Law. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER (INCLUDING, WITHOUT LIMITATION, ANY CLAIM, CONTROVERSY, DISPUTE OR CAUSE OF ACTION, WHETHER SOUNDING IN CONTRACT LAW OR TORT LAW OR OTHERWISE, BASED UPON, ARISING OUT OF OR RELATING TO THE SUBJECT MATTER HEREOF AND ANY DETERMINATIONS WITH RESPECT TO POST-JUDGMENT INTEREST) SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAWS PRINCIPLES THEREOF THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK (OTHER THAN ANY MANDATORY PROVISIONS OF THE UCC RELATING TO THE LAW GOVERNING PERFECTION AND THE EFFECT OF PERFECTION OF THE SECURITY INTEREST).

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; signature pages may be detached from multiple separate counterparts and attached to a single counterpart so that all signature pages are physically attached to the same document. Delivery of an executed signature page to this Agreement by facsimile transmission or in electronic (e.g., "pdf" or "tif") format shall be as effective as delivery of a manually signed counterpart of this Agreement.

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

ALCATEL-LUCENT USA INC.

By:   
Name: Craig Thompson  
Title: Senior Vice President, IPBG

**SCHEDULE A**  
to  
**SUPPLEMENTAL U.S. PATENT SECURITY AGREEMENT**

<b>Filing Number</b>	<b>Title</b>	<b>Filing Date</b>	<b>Current Record Owner or Title in the name of (CPA Data):</b>	<b>Beneficial Owner</b>	<b>Publication Date</b>
14/315909	Systems And Methods For Compressive Sense Imaging	26-Jun-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US)	Alcatel-Lucent USA Inc.	
14/315454	Optical Network Architecture For Hierarchical Modulation	26-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/315970	Hybrid Semiconductor Lasers	26-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/314570	Control Of Supplemental Content In A Data Flow	25-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/314724	Network Assisted ANDSF Policy Updating	25-Jun-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US)	Alcatel-Lucent USA Inc.	
14/312887	Non-Cooperative Power Control For Large-Scale Antenna Systems	24-Jun-2014		Alcatel-Lucent USA Inc.	
14/310496	Method And Apparatus For Improved Multicast Rate Control	20-Jun-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US)	Alcatel-Lucent USA Inc.	
14/310548	Reducing The Data Rate Of Compressive Measurement By Using Linear Prediction	20-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/308756	Optical Receiver Having An Equalization Filter With An Integrated Signal Re-Sampler	19-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/307007	Charging In A Software Defined Network	17-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/305774	Cross-Media Distribution Of Advertisements	16-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	

14/300625	Efficient And Scalable Pull-Based Load Distribution	10-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/295383	System And Method Providing Fixed Mobile Convergence Via Bonded Services	4-Jun-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US); Inventor 4 - Alcatel-Lucent USA Inc. (INV4-US); Inventor 5 - Alcatel-Lucent USA Inc. (INV5-US); Inventor 6 - Alcatel-Lucent USA Inc. (INV6-US); Inventor 1 - Alcatel-Lucent Bell N.V. (INV1-BE)	Alcatel-Lucent USA Inc.	
14/296089	Sequence Number Reuse For CDR Transport Using GTP'	4-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/296011	Error Handling For CDR Transport Within An Offline Charging System	4-Jun-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/292168	Methods And Systems For Determining Crosstalk For A Joining Line In A Vectored System	30-May-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US)	Alcatel-Lucent USA Inc.	
14/290470	Secure Wireless Communication	29-May-2014	Alcatel Lucent	Alcatel-Lucent USA Inc.	
14/285917	Session Key Generation And Distribution With Multiple Security Associations Per Protocol Instance	23-May-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/283549	Accelerated Image Processing	21-May-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	



14/120316	Geo-Location Error Correction For Small Cell Placement	14-May-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US); Inventor 4 - Alcatel-Lucent USA Inc. (INV4-US); Inventor 5 - Alcatel-Lucent USA Inc. (INV5-US); Inventor 1 - Alcatel-Lucent Nederland B.V. (INV1-NL)	Alcatel-Lucent USA Inc.	
14/276512	Mobile Client-Driven Network Transitions	13-May-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US)	Alcatel-Lucent USA Inc.	
14/278887	Cavity Filter	13-May-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/276669	System And Method Of Generating Data Center Alarms For Missing Events	13-May-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/269673	A Tunable Optical Frequency Comb Generator	5-May-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US)	Alcatel-Lucent USA Inc.	
14/265993	Method And Apparatus For Reducing Interference In A Heterogeneous Network	30-Apr-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US)	Alcatel-Lucent USA Inc.	
14/266086	System And Method For Managing Network Resource Impact Of Migrant WIFI Users	30-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/266285	Small Footprint Light Pipe PCB Mounting Adapter	30-Apr-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US)	Alcatel-Lucent USA Inc.	
14/265987	Security Key Generation For Simultaneous Multiple Cell Connections For Mobile Device	30-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	

14/266015	Selectively Decoding Packet Payloads Based On Decoded Packet Headers	30-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/261957	Method And Apparatus For Alien Device Identification In Passive Optical Networks	25-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/261519	Small Cell Deployment Systems And Methods	25-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/259688	Dynamic Local Decision Control In Software Defined Networking-Based Environment	23-Apr-2014	Inventor 1 - Alcatel-Lucent USA Inc. (INV1-US); Inventor 2 - Alcatel-Lucent USA Inc. (INV2-US); Inventor 3 - Alcatel-Lucent USA Inc. (INV3-US); Inventor 4 - Alcatel-Lucent USA Inc. (INV4-US)	Alcatel-Lucent USA Inc.	
14/259949	Override Of Distribution Algorithms For An Offline Charging System	23-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/258207	System And Method For Control Of A Hybird Vehicle With Regenerative Braking Using Location Awareness	22-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/258198	Low Cost Directly Modulated TWDM Burst Mode Laser	22-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/257531	System, Method, And Apparatus For Network Fabric Configuration In Data Communication Networks	21-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/257672	Method And Apparatus For Improved Multi-Carrier Communication	21-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/256514	Triggering Migration Of A Network Access Agent Associated With An Access Terminal	18-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/250978	Filter Structure For Driving An Optical Modulator	11-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/247470	Data Allocation For Pre-Paid Group Data Plans	8-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/247595	Network Device With Service And Client Routing Elements Configured To Support Any-Source Multicast Extranets	8-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/247565	Methods And Apparatuses For Monitoring Objects Of Interest In Area With Activity Maps	8-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/246662	Method And Apparatus For Search Space Configuration For Enhanced Physical Downlink Control Channel	7-Apr-2014	Alcatel Lucent	Alcatel-Lucent USA Inc.	

14/245103	Methods Of Reverse Link Power Control	4-Apr-2014	Alcatel Lucent	Alcatel-Lucent USA Inc.	
14/242161	Classification Of Device Problems Of Customer Premises Devices	1-Apr-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/230501	Distributed Collaborative Offline Charging System	31-Mar-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/230937	Spatial-Mode Multiplexing Optical Signal Streams Onto A Multimode Optical Fiber	31-Mar-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	
14/230884	Method For Adjacency Status Synchronization In Label Distribution Protocol	31-Mar-2014	Alcatel-Lucent USA Inc.	Alcatel-Lucent USA Inc.	