503233812 03/24/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3280430

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALEXANDER SIROTKIN	01/20/2015
ALEXANDRE STOJANOVSKI	01/15/2015
HUANING NIU	03/17/2015
JING ZHU	01/15/2015
KONSTANTINOS DIMOU	01/15/2015
MO-HAN FONG	03/20/2015
MUTHAIAH VENKATACHALAM	01/20/2015
NAGEEN HIMAYAT	01/16/2015
PINGPING ZONG	03/21/2015
SHILPA TALWAR	03/16/2015
SHU-PING YEH	03/19/2015
VIVEK G. GUPTA	01/21/2015

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14583336

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.

Phone: 571-327-1470

Email: inteldocs_docketing@cpaglobal.com

Correspondent Name: LEDELL ANSARI, LLP Address Line 1: P.O. BOX 52050

Address Line 1: P.O. BOX 52050

Address Line 2: C/O CPA GLOBAL

503233812 REEL: 035316 FRAME: 0607

PATENT

Address Line 4: MINN	NEAPOLIS, MINNESOTA 55402
ATTORNEY DOCKET NUMBER:	P68899
NAME OF SUBMITTER:	SADIQ A. ANSARI
SIGNATURE:	/Sadiq A. Ansari/
DATE SIGNED:	03/24/2015

Total Attachments: 36 source=P68899 Assignments Executed#page1.tif source=P68899 Assignments Executed#page2.tif source=P68899 Assignments Executed#page3.tif source=P68899 Assignments Executed#page4.tif source=P68899 Assignments Executed#page5.tif source=P68899 Assignments Executed#page6.tif source=P68899 Assignments Executed#page7.tif source=P68899 Assignments Executed#page8.tif source=P68899 Assignments Executed#page9.tif source=P68899 Assignments Executed#page10.tif source=P68899 Assignments Executed#page11.tif source=P68899 Assignments Executed#page12.tif source=P68899_Assignments_Executed#page13.tif source=P68899 Assignments Executed#page14.tif source=P68899 Assignments Executed#page15.tif source=P68899_Assignments_Executed#page16.tif source=P68899_Assignments_Executed#page17.tif source=P68899 Assignments Executed#page18.tif source=P68899 Assignments Executed#page19.tif source=P68899 Assignments Executed#page20.tif source=P68899 Assignments Executed#page21.tif source=P68899 Assignments Executed#page22.tif source=P68899 Assignments Executed#page23.tif source=P68899 Assignments Executed#page24.tif source=P68899 Assignments Executed#page25.tif source=P68899 Assignments Executed#page26.tif source=P68899 Assignments Executed#page27.tif source=P68899 Assignments Executed#page28.tif source=P68899 Assignments Executed#page29.tif source=P68899 Assignments Executed#page30.tif source=P68899_Assignments_Executed#page31.tif source=P68899 Assignments Executed#page32.tif source=P68899_Assignments_Executed#page33.tif source=P68899_Assignments_Executed#page34.tif source=P68899 Assignments Executed#page35.tif source=P68899 Assignments Executed#page36.tif

> PATENT REEL: 035316 FRAME: 0608

<u>ASSIGNMENT</u>

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Nageen Himayat; Alexander Sirotkin; Jing Zhu; Alexandre Stojanovski; Mo-han Fong; Vivek G. Gopta; Huaning Niu; Pingping Zong; Konstantinos Dimou; Shu-Ping Yeh; Shilpa Talwar; Muthaiah Venkatachalam

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

INTERWORKING/CO-EXISTENCE OF INTEGRATED WLAN/3GPP RAT ARCHITECTURES WITH LEGACY WLAN/3GPP INTERWORKING SOLUTIONS

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on <u>December 26.</u>	2014		
US COUNTRY or International Office	Application Number	_14/583,336	

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers, communicate to said Assignee, its successors,

assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Nagcen Himayat	Date signed
	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Nia	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Attorney Docket No.: P68899 Date signed Date signed

Date signed

Shu-Ping Ych

Shilpa Talwar

Muthaiah Venkatachalam

Page 3:013

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designated lines be	clow, the filing date a	nd application numb	er of said application	n when known.)	

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US COUNTRY or let		Application Number	14/583,336		and

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
lande Lila	45 JAN 2015
Alexandre Stojanovski	<u>イタ 3Aル 2の多</u> Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimon	Date signed

Shu-Ping Yeh	Date signed
Shilpa Talwar	Date signed
Muthaiah Venkatach	alam Date signed

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assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
44/19	3/17/2015
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

	Shu-Ping Yeh	Date signed
	Shilpa Talwar	Date signed
·····	Muthaiah Venkatachalam	Date signed

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_US		Application Number	14/583,336		and
COUNTRY or Inte	ernational Office	••			

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
2/2n	0//15/2015 Date signed
Jing Zhu	Date signed
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Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Page 2 of 3

PATENT REEL: 035316 FRAME: 0619

	Attorney Docket No.: P68899
Shu-Ping Yeh	Date signed
Shilpa Talwar	Date signed
Muthaiah Venkatachalam	Date signed

PATENT REEL: 035316 FRAME: 0620

ASSIGNMENT

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COUNTRY or Int		Application Number	14/583,336		and

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Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Koństantinos Dimou	<u> </u>
Andrew Comments	

	Attorney Docket No.: Poss
 Shu-Ping Yeh	Date signed
 Shilpa Talwar	Date signed
 Muthaiah Venkatachalam	Date signed

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
	MAR 20, 2015
Mo-han Fong	Date signed
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Pingping Zong	Date signed
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	Attorney Docket No.: P68899
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	Alexander Sirotkin	Datasisia
	Alexander Sirotani	Date signed
	Jing Zhu	Date signed
	Alexandre Stojanovski	Date signed
	Mo-han Fong	Date signed
	THE THIRD COLD	Date State C

	Vivek G. Gupta	Date signed
	F3 - 2 - % C	FN. 2. 12 N. 11. 1. 3
	Huaning Niu	Date signed
	Pingping Zong	Date signed
		······································
	Konstantinos Dimou	Date signed

 Shu-Ping Yeh	Date signed
Shilpa Talwar	Date signed
$\Lambda \cap \Lambda \cap \Lambda = \Lambda \cap $	Jan 20, 2015
Muthaiah Venkatachalam	Date signed

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(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on	December 26, 2014	as	
US COUNTRY or Inte		n Number <u>14/583,336</u>	and

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors,

assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Wanes Las	1 61/6/15
Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Shu-Ping Yeh	Date signed
 Shilpa Talwar	Date signed
 Muthaiah Venkatachalam	Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Nageen Himayat; Alexander Sirotkin; Jing Zhu; Alexandre Stojanovski; Mo-han Fong; Vivek G. Gupta; Huaning Niu; Pingping Zong; Konstantinos Dimou; Shu-Ping Yeh; Shilpa Talwar; Muthaiah Venkatachalam

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

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US Application Number 14/583,336 and COUNTRY or International Office

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
9:30	Mar. 21, 2015
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Shu-Ping Yeh	Date signed	
Shilpa Talwar	Date signed	
Muthaiah Venkatachalam	Date signed	

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US COUNTRY or Inte		Application Number	14/583,336		ınd

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Nageen Himayat	Date signed
Alexander Sirotkin	Date signed
Jing Zhu	Date signed
Alexandre Stojanovski	Date signed
Mo-han Fong	Date signed
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Shu-Ping Yeh	Date signed
Stalman	March 16,2016
Shilpa Talwar	Date signed
Muthajah Venkatachalam	Date signed

ASSIGNMENT

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Page Lof 3

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•	Nageen Himayat	Date signed
	Alexander Sirotkin	Date signed
***************************************	Jing Zhu	Date signed
***************************************	Alexandre Stojanovski	Date signed
***************************************	Mo-han Fong	Date signed
	Vivek G. Gupta	Date signed
······	Huaning Niu	Date signed
	Pingping Zong	Date signed
	Konstantinos Dimou	Date signed

	Attorney Docket No.: P68899
	March 19, 2015
Shu-Ping Yeh	Date signed
Shilpa Talwar	Date signed

Muthaiah Venkatachalam

Date signed

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Mo-han Fong	Date signed
	0 (22 (15
Vivek G. Gupta	Date signed
Huaning Niu	Date signed
Pingping Zong	Date signed
Konstantinos Dimou	Date signed

Attorney D	locket	No.:	P68899
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	Shu-Ping Yeh	Date signed
	Shilpa Talwar	Date signed
***************************************	Muthaiah Venkatachalam	Date signed

Page 3 of 3