

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT6000028

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
ALCATEL LUCENT SAS	01/08/2020

RECEIVING PARTY DATA

Name:	PIECE FUTURE PTE. LTD.
Street Address:	45 MIDDLE ROAD #06-01
City:	SINGAPORE
State/Country:	SINGAPORE
Postal Code:	188954

PROPERTY NUMBERS Total: 18

Property Type	Number
Patent Number:	7900082
Patent Number:	7526803
Patent Number:	8295352
Patent Number:	8542743
Patent Number:	8955090
Patent Number:	8750494
Patent Number:	9008487
Patent Number:	8737202
Patent Number:	9062889
Patent Number:	8949859
Patent Number:	9389301
Patent Number:	9832648
Patent Number:	8896660
Patent Number:	8296584
Patent Number:	8614741
Patent Number:	8914885
Patent Number:	8300749
Patent Number:	8743759

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.

Email: jason.loh@piecefuture.com

Correspondent Name: JASON LOH

Address Line 1: 45 MIDDLE ROAD #06-01

Address Line 4: SINGAPORE, SINGAPORE 188954

NAME OF SUBMITTER:	JASON LOH
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SIGNATURE:	/jason/
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DATE SIGNED:	03/05/2020
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This document serves as an Oath/Declaration (37 CFR 1.63).	
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Total Attachments: 12

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SCHEDULE B1: ASSIGNMENT OF PATENT RIGHTS

BY ALCATEL LUCENT SAS

PATENT ASSIGNMENT

This **PATENT ASSIGNMENT**, including without limitation Exhibit A of Schedule B1 hereto, (“Assignment”) is made by:

- (1) **Alcatel Lucent SAS**, a company validly organized and existing under the laws of France and having its principal address at 148/152 Route de la Reine, 92100 Boulogne-Billancourt, France (“Assignor”); to
- (2) **Piece Future Pte Ltd.**, a company validly organized under the laws of Singapore, having its registered office at 45 Middle Road #06-01, Foo Ann Building, Singapore (the “Assignee”), (Assignee and Assignor are each a “Party”).

All references to the plural herein also mean the singular, and vice versa, unless the context otherwise requires.

WHEREAS, Assignor is the owner of certain patents and patent applications, as specified in Exhibit A hereto.

DEFINITIONS

“Assigned Patents” means (a) patent applications listed in **Exhibit A** of Schedule B1 hereto; (b) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of such patents and patent applications (whether pending, issued, abandoned or filed prior to, on or after the Assignment Date); (c) all patents and patent applications (i) to which any or all of the foregoing directly or indirectly claims priority to, or the benefit of, the filing date, or (ii) for which any or all of the foregoing directly or indirectly forms a basis for priority or otherwise provides the benefit of an earlier filing date; and (d) all foreign counterparts to any or all of the foregoing, and all utility models, certificates of invention, patent registrations and equivalent rights worldwide.

“Assignment Date” means the date upon which the last Party executes this Assignment.

PATENT ASSIGNMENT

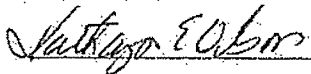
Assignor hereby assigns, transfers, and conveys unto Assignee, all of Assignor’s right, title, and interest in and to each of the Assigned Patents.

The assignment, transfer, and conveyance to Assignee set forth above will become effective on the Assignment Date and is made subject to certain encumbrances and retained rights for the Assigned Patents in favor of Assignor and/or its assignees and licensees.

IN WITNESS WHEREOF, the Assignor has caused this Assignment to be signed by its duly authorized officers.

ASSIGNOR:

ALCATEL LUCENT SAS

By: 

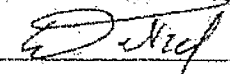
Name: KATHRYN E. OLSON

Title: DIRECTOR/MANAGING COUNSEL - IP LEGAL

Date: 09-January-2020

ASSIGNOR:

ALCATEL LUCENT SAS

By: 

Name: Emmanuelle WETZEL

Title: Director Patents

Date: 09-January-2020

ACKNOWLEDGED BY ASSIGNEE

ASSIGNEE:

PIECE FUTURE PTE LTD.

By: 

Name: Jason Loh

Title: Director

Date: 08 January 2020

EXHIBIT A of SCHEDULE B1 – ASSIGNED PATENTS

FAMILY	CASE REF	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
115225	115225-CN-NP	CN	13-Jun-2008	200810110146.6	101325518	20-Mar-2013	ZL200810110146.6	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-DE-EPA	DE	15-Jun-2007	07301114.0	EP2003845	29-Jul-2015	EP2003845	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-EP-EPA	EP	15-Jun-2007	07301114.0	EP2003845	29-Jul-2015	EP2003845	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-FR-EPA	FR	15-Jun-2007	07301114.0	EP2003845	29-Jul-2015	EP2003845	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-GB-EPA	GB	15-Jun-2007	07301114.0	EP2003845	29-Jul-2015	EP2003845	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-IN-PCT	IN	10-Jun-2008	5068/CHENP/2009	5068/CHENP/2009			Proctor peer for malicious peer detection in structured peer-to-peer networks

FIRST AMENDMENT OF PATENT PURCHASE AGREEMENT
 BETWEEN NOKIA TECHNOLOGIES, NSN BV, NSN OY, NOKIA AMERICA AND PIECE FUTURE

FAMILY	CASE REF	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
115225	115225-JP-PCT	JP	10-Jun-2008	2010-511616	2010-529571	23-Mar-2012	JP4955811	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-KR-PCT	KR	10-Jun-2008	2009-7026119		19-Apr-2012	KR101140475	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-US-NP	US	29-May-2008	12/129370	20080313500	01-Mar-2011	US7900082	Proctor peer for malicious peer detection in structured peer-to-peer networks
115225	115225-WO-PCT	WO	10-Jun-2008	PCT/EP2008/057224	2008152035			Proctor peer for malicious peer detection in structured peer-to-peer networks
137715	137715-DE-EPA	DE	16-Nov-2004	04300791.3	EP1533977	15-Nov-2017	EP1533977	Detection of Denial of Service Attacks Against SIP (Session Initiation Protocol) Elements
137715	137715-EP-EPA	EP	16-Nov-2004	04300791.3	EP1533977	15-Nov-2017	EP1533977	Detection of Denial of Service Attacks Against SIP (Session Initiation Protocol) Elements
137715	137715-GB-EPA	GB	16-Nov-2004	04300791.3	EP1533977	15-Nov-2017	EP1533977	Detection of Denial of Service Attacks Against SIP (Session Initiation Protocol) Elements

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FAMILY	CASE REF	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
137715	137715-US-NP	US	17-Nov-2003	10/713035	20050108567	28-Apr-2009	US7526803	Detection Of Denial Of Service Attacks Against SIP (Session Initiation Protocol) Elements
801336	801336-CN-NP	CN	11-Dec-2008	200810190831.4	101483775	25-Jun-2014	ZL200810190831.4	Method to optimize video delivering for video telephony applications
801336	801336-EP-EPA	EP	11-Dec-2007	07291490.6	EP2071852			PROCESS FOR DELIVERING A VIDEO STREAM OVER A WIRELESS BIDIRECTIONAL CHANNEL BETWEEN A VIDEO ENCODER AND A VIDEO DECODER
801336	801336-US-NP	US	10-Dec-2008	12/332125	20090180542	23-Oct-2012	US8295352	Process For Delivering A Video Stream Over A Wireless Bidirectional Channel Between A Video Encoder And A Video Decoder
801336	801336-WO-PCT	WO	11-Dec-2008	PCT/EP2008/067305	2009074641			Method to optimize video delivering for video telephony applications
801607	801607-CN-NP	CN	12-Nov-2008	200810174024.3	101437164	16-Mar-2011	ZL200810174024.3	PERSONALIZED VIDEO ENCODING AND CORRESPONDING NETWORK ENABLERS
801607	801607-DE-EPA	DE	13-Nov-2007	07291361.9	2061249	26-Dec-2018	602007057218.5	METHOD AND ARRANGEMENT FOR PERSONALIZED VIDEO ENCODING

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FAMILY	CASE REF	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
801607	801607-EP-EPA	EP	13-Nov-2007	07291361.9	2061249	26-Dec-2018	2061249	METHOD AND ARRANGEMENT FOR PERSONALIZED VIDEO ENCODING
801607	801607-IN-PCT	IN	12-Nov-2008	2716/CHENP/2010	2716/CHENP/2010			PERSONALIZED VIDEO ENCODING AND CORRESPONDING NETWORK ENABLERS
801607	801607-JP-PCT	JP	12-Nov-2008	2010532508	2011503984	29-Nov-2013	JP5421922	PERSONALIZED VIDEO ENCODING AND CORRESPONDING NETWORK ENABLERS
801607	801607-KR-PCT	KR	12-Nov-2008	20107010560		16-Mar-2015	KR10-1504789	PERSONALIZED VIDEO ENCODING AND CORRESPONDING NETWORK ENABLERS
801607	801607-US-NP	US	11-Nov-2008	12/268618	20090122873	24-Sep-2013	US8542743	Method And Arrangement For Personalized Video Encoding
801607	801607-WO-PCT	WO	12-Nov-2008	PCT/EP2008/009537	2009062679			PERSONALIZED VIDEO ENCODING AND CORRESPONDING NETWORK ENABLERS
808173	808173-CN-PCT	CN	29-Dec-2011	201180064634.8	CN103314562A	23-Nov-2016	ZL201180064634.8	Session Initiation Protocol (SIP) Firewall For IP Multimedia Subsystem (IMS) Core To Defend Against SIP Registration-Based DOS/DDOS Attacks

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FAMILY	CASE REF	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
808173	808173-US-NP	US	10-Jan-2011	12/987554	20120180119	10-Feb-2015	US8955090	Session Initiation Protocol (SIP) Firewall For IP Multimedia Subsystem (IMS) Core
808173	808173-WO-PCT	WO	29-Dec-2011	PCT/US2011/067903	2012096788			Session Initiation Protocol (SIP) Firewall For IP Multimedia Subsystem (IMS) Core To Defend Against SIP Registration-Based DOS/DDOS Attacks
809017	809017-CN-PCT	CN	01-Aug-2012	201280040127.5	CN103748865A	19-Aug-2015	ZL201280040127.5	Clock Skew Compensation For Acoustic Echo Cancellers
809017	809017-EP-EPT	EP	01-Aug-2012	12743871.1	EP2745500	05-Jun-2019	2745500	Clock Skew Compensation For Acoustic Echo Cancellers
809017	809017-JP-PCT	JP	01-Aug-2012	2014526049	2014529943	08-Jan-2016	JP5863971	Clock Skew Compensation For Acoustic Echo Cancellers
809017	809017-KR-PCT	KR	01-Aug-2012	20147004025				Clock Skew Compensation For Acoustic Echo Cancellers
809017	809017-US-NP	US	17-Aug-2011	13/211505	20130044873	10-Jun-2014	US8750494	Clock Skew Compensation For Acoustic Echo Cancellers Using Inaudible Tones

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809017	809017-WO-PCT	WO	01-Aug-2012	PCT/US2012/049094	2013025346			Clock Skew Compensation For Acoustic Echo Cancellers
809017	809017-TW-NP	TW	13-Aug-2012	101129200				Clock Skew Compensation For Acoustic Echo Cancellers
810056	810056-CN-PCT	CN	26-Nov-2012	201280060445.8	CN103988497A	08-Dec-2017	ZL201280060445.8	Spatial Bookmarking
810056	810056-EP-EPT	EP	26-Nov-2012	12799414.3				Spatial Bookmarking
810056	810056-JP-PCT	JP	26-Nov-2012	2014545932	2015507394	20-Apr-2018	JP6324901	Spatial Bookmarking
810056	810056-KR-PCT	KR	26-Nov-2012	20147015332	20140096109	25-Nov-2015	KR101573646	Spatial Bookmarking
810056	810056-US-NP	US	06-Dec-2011	13/312218	20130141573	14-Apr-2015	US9008487	Spatial Bookmarking

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810056	810056- WO- PCT	WO	26-Nov- 2012	PCT/US2012/066 511	2013085733			Spatial Bookmarking
811321	811321- US-NP	US	29-May- 2012	13/482728	2013032223 0	27-May- 2014	US8737202	Automatic Connection Recovery
811452	811452- US-NP	US	22-Mar- 2012	13/426870	2013025387 7	23-Jun- 2015	US9062889	Temperature Based Location Determination System And Method
813365	813365- US-NP	US	20-Jun- 2013	13/922973	2014038033 7	03-Feb- 2015	US8949859	Event-Driven Application Systems And Methods
815320	815320- US-NP	US	28-Feb- 2014	14/193867	2015024791 5	12-Jul- 2016	US9389301	Method And Apparatus For Determining Tag Location
815320	815320- WO- PCT	WO	10-Feb- 2015	PCT/US2015/015 089	2015130458			METHOD AND APPARATUS FOR DETERMINING TAG LOCATION
815871	815871- US-NP	US	11-Mar- 2014	14/204071	2015026456 4	28-Nov- 2017	US9832648	Access Control Of Geo-Fenced Services Using Co-Located Witnesses

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815871	815871- WO- PCT	WO	20-Feb- 2015	PCT/IB2015/0003 44	2015136362			Access Control Of Geo-Fenced Services Using Co-Located Witnesses
851144	851144- US-NP	US	30-May- 2003	10/449929	2004023975 6	25-Nov- 2014	US8896660	Method And Apparatus For Computing Error- Bounded Position And Orientation Of Panoramic Cameras In Real-World Environments
857184	857184- US-NP	US	28-Dec- 2007	11/966101	2009017241 6	23-Oct- 2012	US8296584	Storage And Retrieval Of Encrypted Data Blocks With In-Line Message Authentication Codes
859928	859928- US-NP	US	31-Mar- 2003	10/403443	2004019412 9	24-Dec- 2013	US8614741	Method And Apparatus For Intelligent And Automatic Sensor Control Using Multimedia Database System
872186	872186- DE-EPT	DE	23-Oct- 2007	07867263.1	EP2095603	04-May- 2016	602007046206.1	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186- EP-EPT	EP	23-Oct- 2007	07867263.1	EP2095603	04-May- 2016	EP2095603	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186- FR-EPT	FR	23-Oct- 2007	07867263.1	EP2095603	04-May- 2016	EP2095603	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks

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872186	872186-GB-EPT	GB	23-Oct-2007	07867263.1	EP2095603	04-May-2016	EP2095603	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-US-NP	US	03-Nov-2006	11/592726	2008010989 1	16-Dec-2014	US8914885	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-CN-PCT	CN	23-Oct-2007	200780040606.6	101536455	02-Jan-2013	ZL200780040606 .6	Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-IN-PCT	IN	23-Oct-2007	2436/CHENP/200 9	2436/CHEN P/2009			Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-JP-DIV	JP	23-Oct-2007	2011280852	2012109996			Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-JP-PCT	JP	23-Oct-2007	2009535274	2010508760			Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872186	872186-KR-PCT	KR	23-Oct-2007	20097009126	2009009423 6			Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks

FAMILY	CASE REF.	COUNTRY	FILING DATE	FILE #	PUB #	GRANT DATE	GRANT #	TITLE
872186	872186- WO- PCT	WO	23-Oct- 2007	PCT/US2007/022 446	2008063344			Methods And Apparatus For Delivering Control Messages During A Malicious Attack In One Or More Packet Networks
872797	872797- US-NP	US	19-Dec- 2008	12/339318	2010015805 1	30-Oct- 2012	US8300749	Method, Apparatus And System For Frequency Synchronization Between Devices Communicating Over A Packet Network
892863	892863- US-NP	US	30-Jun- 2009	12/495058	2010032912 3	03-Jun- 2014	US8743759	Detection Of Access Point Location Errors In Enterprise Localization Systems

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