PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5799484

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
OL SECURITY LIMITED LIABILITY COMPANY	10/30/2019

RECEIVING PARTY DATA

Name:	INTELLECTUAL VENTURES ASSETS 130 LLC
Street Address:	251 LITTLE FALLS DRIVE
City:	WILMINGTON
State/Country:	DELAWARE
Postal Code:	19808

PROPERTY NUMBERS Total: 31

Property Type	Number
Patent Number:	6721787
Patent Number:	8160863
Patent Number:	7835897
Patent Number:	RE42227
Patent Number:	8195442
Patent Number:	8380481
Patent Number:	7069483
Patent Number:	7852796
Patent Number:	7835372
Patent Number:	7451365
Patent Number:	7957356
Patent Number:	7941149
Patent Number:	8175613
Patent Number:	8780770
Patent Number:	8611320
Patent Number:	9554304
Patent Number:	9930575
Patent Number:	7027465
Patent Number:	RE44904
Patent Number:	7050962

PATENT REEL: 050886 FRAME: 0662

505752671

Property Type	Number
Patent Number:	7266490
Patent Number:	7555014
Application Number:	10158772
Application Number:	11557057
Application Number:	11557053
Application Number:	13766960
Application Number:	10437129
Application Number:	10816481
Application Number:	11076738
Application Number:	11095349
Application Number:	15935928

CORRESPONDENCE DATA

Fax Number: (425)679-0580

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: ivrecording@intven.com

Correspondent Name: INTELLECTUAL VENTURES MANAGEMENT- IP LEGAL

Address Line 1: 3150 139TH AVENUE SE Address Line 2: BUILDING 4, FLOOR 3

Address Line 4: BELLEVUE, WASHINGTON 98005

NAME OF SUBMITTER:	JANICE L. GOEBEL	
SIGNATURE:	/Janice L. Goebel/	
DATE SIGNED:	11/01/2019	

Total Attachments: 11

source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page1.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page3.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page4.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page5.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page6.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page7.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page8.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page9.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page10.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page10.tif source=OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC#page10.tif

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, OL Security Limited Liability Company, a Delaware limited liability company having an address at 251 Little Falls Drive, Wilmington, DE 19808 ("Assignor"), does hereby sell, assign, transfer, and convey unto Intellectual Ventures Assets 130 LLC a Delaware limited liability company, having an address at 251 Little Falls Drive, Wilmington, DE 19808 ("Assignee"), or its designees, all of its right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "Patent Rights"):

(a) the provisional patent applications, patent applications and patents listed in the table below (the "Patents");

Active Patent(s) - (Filed; Granted)

		Issue Date/	<u>Title of Patent</u>
Patent/Application Number	<u>Country</u>	Filing Date	and First Named Inventor
6721787	US	4/13/2004	SYSTEM AND METHOD
			FOR WIRELESS HOT-
(09/501204)		(2/10/2000)	SYNCHRONIZATION OF A
			PERSONAL DIGITAL
			ASSISTANT
			James Scott Hiscock
8160863	US	4/17/2012	System and method for
			connecting a logic circuit
(10/044217)		(11/19/2001)	simulation to a network
			Robert M. Zeidman
7835897	US	11/16/2010	APPARATUS AND
			METHOD FOR
(11/557064)		(11/6/2006)	CONNECTING
			HARDWARE TO A
			CIRCUIT SIMULATION
			Robert Marc Zeidman
RE42227	US	3/15/2011	Apparatus and method for
·			connecting hardware to a
(12/481943)		(6/10/2009)	circuit simulation
			Robert Marc Zeidman
8195442	US	6/5/2012	APPARATUS AND
			METHOD FOR
(12/946721)		(11/15/2010)	CONNECTING
,			HARDWARE TO A
			CIRCUIT SIMULATION

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 1 of 11

Patent/Application Number	Country	Issue Date/ Filing Date	Title of Patent and First Named Inventor
			Robert Marc Zeidman
8380481	US	2/19/2013	CONVEYING DATA FROM
0300101		2,19,2019	A HARDWARE DEVICE TO
(13/487750)		(6/4/2012)	A CIRCUIT SIMULATION
			Robert Marc Zeidman
7069483	US	6/27/2006	System and method for
(10/437128)		(5/13/2003)	identifying nodes in a wireless mesh network
			Michael P. Nova
JP4874550	JP	12/2/2011	System and method for routing
(JP2004-572210)		(10/31/2003)	packets in a wired or wireless network
			GILLIES DONALD W
JP4369374	JP	11/18/2009	SYSTEM AND METHOD
			FOR BOUNDRY SCAN
(JP2004-572211)		(10/31/2003)	TEST OF WIRED OR
			WIRELESS NETWORK
			WANG WEILIN
7852796	US	12/14/2010	DISTRIBUTED
(11/100/00)		(5/06/0006)	MULTICHANNEL
(11/420668)		(5/26/2006)	WIRELESS COMMUNICATION
			COMMUNICATION
			Xudong Wang
7835372	US	11/16/2010	System and Method for
			Transparent Wireless Bridging
(11/421998)		(6/2/2006)	of Communication Channel
			Segments
* . · <u>-</u> ·			Weilin Wang
7451365	US	11/11/2008	System and Method for
(11/405114)		((10/000)	Identifying Nodes in a
(11/425114)	;	(6/19/2006)	Wireless Network
			Donald W. Gillies
7957356	US	6/7/2011	SCALABE MEDIA ACCESS
(11/460660)		(9/4/2006)	CONTROL FOR MULTI-
(11/462663)		(8/4/2006)	HOP HIGH BANDWIDTH COMMUNICATIONS
]		COMMUNICATIONS

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 2 of 11

Patent/Application Number	Country	Issue Date/ Filing Date	Title of Patent and First Named Inventor
			Yudana Wana
7941149	US	5/10/2011	Xudong Wang Multi-Hop Ultra Wide Band
7741147	05	5/10/2011	Wireless Network
(11/615582)		(12/22/2006)	Communication
			Weilin Wang
8175613	US	5/8/2012	SYSTEMS AND METHODS
0175015		5/6/2012	FOR DETERMINING
(11/741630)		(4/27/2007)	LOCATION OF DEVICES
			WITHIN A WIRELESS
			NETWORK
			Chao Gui
8780770	US	7/15/2014	SYSTEMS AND METHODS
			FOR VOICE
(11/741637)		(4/27/2007)	COMMUNICATION OVER
,			A WIRELESS NETWORK
			Weiguang Shi
8611320	US	12/17/2013	SCALABLE MEDIA
			ACCESS CONTROL FOR
(12/950558)		(11/19/2010)	MULTI-HOP HIGH
			BANDWIDTH
	!		COMMUNICATIONS
			Weilin Wang
9554304	US	1/24/2017	SCALABLE MEDIA
			ACCESS CONTROL FOR
(14/090760)		(11/26/2013)	MULTI-HOP HIGH
			BANDWIDTH
			COMMUNICATIONS
			Xudong Wang
9930575	US	3/27/2018	SCALABLE MEDIA
			ACCESS CONTROL FOR
(15/409896)		(1/19/2017)	MULTI-HOP HIGH
			BANDWIDTH
			COMMUNICATIONS
			Weilin Wang
7027465	US	4/11/2006	Method for contention free
(10/167006)		(6/11/0000)	traffic detection
(10/167986)	L	(6/11/2002)	

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 3 of 11 $\,$

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent</u> and First Named Inventor
			Hautala Petri
RE44904	US	5/20/2014	A METHOD FOR
			CONTENTION FREE
(13/171882)		(6/29/2011)	TRAFFIC DETECTION
	•		
			Hautala Petri

- (b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, and/or (ii) for which any of the Patents directly or indirectly forms a basis for priority;
- (c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);
- (d) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
- (e) all items in any of the foregoing in categories (b) through (d), whether or not expressly listed as Patents above and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;
- (f) inventions, invention disclosures, and discoveries described in any of the Patents and/or any item in the foregoing categories (b) through (e) that (i) are included in any claim in the Patents and/or any item in the foregoing categories (b) through (e), (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Patents and/or any item in the foregoing categories (b) through (e), and/or (iii) could have been included as a claim in any of the Patents and/or any item in the foregoing categories (b) through (e);
- (g) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (f), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- (h) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories (b) through (g), including, without limitation, all causes of action and other enforcement rights for

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 4 of 11

- (1) damages,
- (2) injunctive relief, and
- (3) any other remedies of any kind

for past, current, and future infringement;

- (i) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (h); and
- (j) all rights to the assets listed in the table below, as well as all rights to the inventions, invention disclosures, and discoveries in the assets listed in the table below, together, with the rights, if any, to revive prosecution of claims under such assets and to sue or otherwise enforce any claims under such assets for past, present or future infringement:

<u>Inactive Patent(s) - (Abandoned; Lapsed; Expired)</u>

Patent/Application Number	Country	Issue Date/ Filing Date	<u>Title of Patent</u> <u>and First Named Inventor</u>
(60/193169)	US	(3/28/2000)	Method for connecting a hardware emulator to a network
			Robert M. Zeidman
7050962 (09/751573)	US	5/23/2006 (12/28/2000)	Method for connecting a hardware emulator to a network
			Robert M. Zeidman
7266490	US	9/4/2007	Apparatus and method for connecting hardware to a
(10/158648)		(5/31/2002)	circuit simulation
(10/158772)	US	(5/31/2002)	Apparatus and method for connecting a hardware emulator to a computer peripheral
			Robert Marc Zeidman
(11/557057)	US	(11/6/2006)	APPARATUS AND METHOD FOR CONNECTING A

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 5 of 11

Patent/Application Number	Country	<u>Issue Date/</u> <u>Filing Date</u>	<u>Title of Patent</u> and First Named Inventor
			HARDWARE EMULATOR TO A COMPUTER PERIPHERAL
			Robert Marc Zeidman
(11/557053)	US	(11/6/2006)	SYSTEM AND METHOD FOR CONNECTING A LOGIC CIRCUIT SIMULATION TO A NETWORK Robert M. Ziedman
			Robott M. Zacuman
(13/766960)	US	(2/14/2013)	CONVEYING DATA FROM A HARDWARE DEVICE TO A CIRCUIT SIMULATION
			Robert Marc Zeidman
(60/380425)	US	(5/13/2002)	Low cost, minimal software footprint, self configuring, ad hoc, autonomic networking apparatus and method of use
	<u> </u>		Michael P. Nova
(10/437129)	US	(5/13/2003)	SYSTEMS AND METHODS FOR ROUTING PACKETS IN A WIRED OR WIRELESS NETWORK
			Michael P. Nova
(PCT/US2003/034799)	wo	(10/31/2003)	SYSTEM AND METHOD FOR ROUTING PACKETS IN A WIRED OR WIRELESS NETWORK
			GILLIES DONALD W
(CN200380110363.0)	CN	(10/31/2003)	System and method for routing packets in a wired or wireless network

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 6 of $11\,$

Patent/Application Number	Country	<u>Issue Date/</u> <u>Filing Date</u>	Title of Patent and First Named Inventor
			GILLIES DONALD W WANG WEILIN N
(EP03778062.4)	EP	(10/31/2003)	SYSTEM AND METHOD FOR ROUTING PACKETS IN A WIRED OR WIRELESS NETWORK
	,		GILLIES DONALD W
(PCT/US2003/034884)	wo	(10/31/2003)	SYSTEM AND METHOD FOR BOUNDRY SCAN TEST OF A WIRED OR WIRELESS NETWORK
			NOVA MICHAEL P
(CN200380110362.6)	CN	(10/31/2003)	SYSTEM AND METHOD FOR BOUNDRY SCAN TEST OF WIRED OR WIRELESS NETWORK
			GILLIES DONALD W WANG WEILIN N
(EP03778075.6)	EP	(10/31/2003)	SYSTEM AND METHOD FOR BOUNDRY SCAN TEST OF WIRED OR WIRELESS NETWORK
			WANG WEILIN
(60/557954)	US	(3/31/2004)	Broadband applications for wireless mesh networks
			Weilin Wang
(10/816481)	US	(4/1/2004)	Systems and methods for congestion control in a wireless mesh network
			Michael P. Nova
(11/076738)	US	(3/9/2005)	Distributed TDMA for wireless mesh network

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 7 of $11\,$

Patent/Application Number	Country	Issue Date/ Filing Date	Title of Patent and First Named Inventor
			Weilin Wang
(11/095349)	US	(3/31/2005)	SYSTEMS AND METHODS FOR BROADBAND DATA COMMUNICATION IN A WIRELESS MESH NETWORK
			Weilin Wang
(60/747409)	US	(5/16/2006)	Distributed Multi-Channel TDMA MAC for Wireless Mesh Networks
			Xudong Wang
(PCT/US2007/069031)	wo	(5/16/2007)	DISTRIBUTED MULTICHANNEL WIRELESS COMMUNICATION
			GUI CHAO
(PCT/US2007/070225)	wo	(6/1/2007)	SYSTEM AND METHOD FOR TRANSPARENT WIRELESS BRIDGING OF COMMUNICATION CHANNEL SEGMENTS
			RIMMER JAMES
(15/935928)	US	(3/26/2018)	SCALABLE MEDIA ACCESS CONTROL FOR MULTI-HOP HIGH BANDWIDTH COMMUNICATIONS
			Weilin Wang
(PCT/EP1999/010097)	wo	(12/17/1999)	A METHOD FOR CONTENTION FREE TRAFFIC DETECTION
			Hautala Petri

OL Security Limited Liability Company to Intellectual Ventures Assets 130 LLC Page 8 of 11

Patent/Application Number	Country	<u>Issue Date/</u> <u>Filing Date</u>	<u>Title of Patent</u> and First Named Inventor
(EP99965493.2)	EP	(12/17/1999)	A METHOD FOR CONTENTION FREE TRAFFIC DETECTION
			Hautala Petri
7555014 (11/402621)	US	6/30/2009 (4/11/2006)	METHOD FOR CONTENTION FREE TRAFFIC DETECTION
(11/402021)		(4/11/2000)	Hautala Petri

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Assignor will, at the reasonable request of Assignee, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

on	IN WITNESS WHEREOF this Assignment of Patent Rights is executed at Belleve, WA CCTORE 30, 2019.
	SNOR: curity Limited Liability Company
By:	Jam //
Name:	Lawrence Freebox
Title:	CF0
	STATE OF WASHINGTON))ss.
	COUNTY OF KING)
	on 10/30/19 before me, Catherine Ruott,
	Notary Public in and for said State, personally appeared
	personally known to me (or proved to me on the basis of satisfactory evidence) to be the
	person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on
	the instrument the person, or the entity upon behalf of which the person acted, executed
	the instrument.
	WITNESS my hand and official seal. (Seal)
	Signature Signature
	Notary Public, State of Washington //8/22
	My commission expires:

ASSIC Intelle	SNEE: ctual Ventures Assets 130 LLC		
By:	Jan /2	 .	
Name:	Lawrence Freder		, me de
Title:	CFO		
	STATE OF WASHINGTON)		
	COUNTY OF KING) On /0/36/19 , before	neme Otherine Ruoff	
	Notary Public in and for said State, perso personally known to me (or proved to me or person whose name is subscribed to the with he/she executed the same in his/her authorize the instrument the person, or the entity upon the instrument.	onally appeared Ladrence Froebe on the basis of satisfactory evidence) thin instrument and acknowledged to zed capacity, and that by his/her sign	o be the me that ature on
	WITNESS my hand and official scal.	(Seal)	
	Notary Public, State of Washington My commission expires:	1/8/2 FO NOTARIN	
	Ourt#83439		

RECORDED: 11/01/2019