PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5892290

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
INTELLECTUAL VENTURES ASSETS 147 LLC	11/15/2019

RECEIVING PARTY DATA

Name:	CDN INNOVATIONS, LLC
Street Address:	44 MILTON AVENUE
Internal Address:	SUITE 254
City:	ALPHARETTA
State/Country:	GEORGIA
Postal Code:	30009

PROPERTY NUMBERS Total: 20

Property Type	Number
Patent Number:	8548987
Patent Number:	7890856
Patent Number:	7996766
Patent Number:	9684734
Patent Number:	6888795
Patent Number:	7554913
Patent Number:	6311180
Patent Number:	7095759
Patent Number:	6999758
Patent Number:	7929682
Patent Number:	7613452
Patent Number:	7970108
Patent Number:	6433921
Patent Number:	6628344
Patent Number:	6636273
Patent Number:	6747590
Patent Number:	6803874
Patent Number:	6621424
Patent Number:	6646572

PATENT REEL: 051406 FRAME: 0850

505845354

Property Type	Number
Patent Number:	6865532

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Address Line 2: SUITE 1300

Address Line 4: ATLANTA, GEORGIA 30309

ATTORNEY DOCKET NUMBER:	11203-001GEN
NAME OF SUBMITTER:	LAWRENCE A. AARONSON
SIGNATURE:	/Lawrence A. Aaronson/
DATE SIGNED:	01/03/2020

Total Attachments: 4

source=Assignment - IV 147 LLC to CDN Innovations LLC (Active)#page1.tif source=Assignment - IV 147 LLC to CDN Innovations LLC (Active)#page2.tif source=Assignment - IV 147 LLC to CDN Innovations LLC (Active)#page3.tif source=Assignment - IV 147 LLC to CDN Innovations LLC (Active)#page4.tif

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, Intellectual Ventures Assets 147 LLC, a Delaware limited liability company, with an address at 251 Little Falls Drive, Wilmington, DE 19808 ("Assignor"), does hereby sell, assign, transfer, and convey unto CDN Innovations, LLC, a Georgia limited liability company with an address at 44 Milton Avenue, Suite 254, Alpharetta, GA 30009 (Assignee"), all of Assignor's right, title, and interest in and to the following (collectively, the "Assigned Patent Rights"):

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

Active Patent(s) - (Filed; Granted)

System and Method for Efficiently Providing a Recommendation Rauser, John			<u>Issue Date/</u>	Title of Patent
(12/263048) (10/31/2008) Efficiently Providing a Recommendation Rauser, John 7890856 US 2/15/2011 SERVER SIDE WEB BROWSING AND MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang-Swee Chiang 7996766 US 8/9/2011 SERVER SIDE WEB BROWSING AND MULTIPLE LENS SYSTEM METHOD AND APPARATUS (8/31/2006) (8/31/2006) (8/31/2006) MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang Swee Chiang 9684734 US 6/20/2017 SERVER SIDE WEB BROWSING AND MILTIPLE LENS SYSTEM METHOD AND APPARATUS (6/14/2011) MULTIPLE LENS SYSTEM METHOD AND MILTIPLE LENS SYSTEM BROWSING AND MILTIPLE LENS SYSTEM METHOD AND MILTIPLE LENS SYSTEM BROWSING AND MILTIPLE LENS SYSTEM	Patent/Application Number		Filing Date	and First Named Inventor
(12/263048) (10/31/2008) Recommendation Rauser, John 7890856 US 2/15/2011 SERVER SIDE WEB BROWSING AND MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang-Swee Chiang 7996766 US 8/9/2011 SERVER SIDE WEB BROWSING AND MULTIPLE LENS SYSTEM METHOD AND APPARATUS (11/515460) (8/31/2006) MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang Swee Chiang 9684734 US 6/20/2017 SERVER SIDE WEB BROWSING AND MILTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang Swee Chiang 9684734 US 6/20/2017 SERVER SIDE WEB BROWSING AND MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang Swee Chiang 9684734 US 6/20/2017 MULTIPLE LENS SYSTEM METHOD AND APPARATUS Hiang Swee Chiang 9684734 MUS MULTIPLE LENS SYSTEM	8548987	US	10/1/2013	
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METHOD AND APPARATUS Hiang-Swee Chiang 7996766				
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METHOD AND APPARATUS Hiang Swee Chiang	(11/515460)		(0.01.00.00	
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9684734 US 6/20/2017 SERVER SIDE WEB BROWSING AND (13/160356) (6/14/2011) MULTIPLE LENS SYSTEM				History Chiang
(13/160356) BROWSING AND MULTIPLE LENS SYSTEM	0684734	TIC	6/20/2017	
(13/160356) (6/14/2011) MULTIPLE LENS SYSTEM	7004754	US	0/20/2017	
(· · · · · · · · · · · · · · · · · · ·	(13/160356)		(6/14/2011)	
METHOD AND	(13/100330)		(0/14/2011)	METHOD AND
APPARATUS				
AFFARATUS	!			AFFARATUS
Hiang-Swee Chiang	1			Hiang-Swee Chiang
	6888795	US	5/3/2005	Resource allocation in a circuit
switched network				
(10/134012) (4/25/2002)	(10/134012)		(4/25/2002)	ZZZZZZZZ Z ZZZZZZZZZZZZZZZZZZZZZZZ
Gupta, Vivek				Gupta, Vivek
	7554913	US	6/30/2009	Resource allocation in a circuit
switched network				
(11/089958) (3/25/2005)	(11/089958)		(3/25/2005)	
Gupta, Vivek				Gupta, Vivek

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent</u> and First Named Inventor
6311180	US	10/30/2001	METHOD FOR MAPPING
		10/30/2001	AND FORMATTING
(09/537006)		(3/28/2000)	INFORMATION FOR A
(**************************************		(5/20/2000)	DISPLAY DEVICE
			DISTERT DEVICE
			John H. Fogarty
7095759	US	8/22/2006	COMBINED TELEPHONE
			PBX AND COMPUTER
(09/527968)		(3/17/2000)	DATA ROUTER WITH
	•	<u> </u>	POOLED RESOURCES
			Jeffery Fitzgerald
6999758	US	2/14/2006	SYSTEM AND METHOD
			FOR PROVIDING
(10/430791)		(5/6/2003)	COMMUNICATIONS
			SERVICES
CD0445055		0 /0 /0 0 0	Joseph Durkee
GB2417855	GB	8/8/2007	System and method for
(CD0504064-6)		(5/4/2004)	providing communications
(GB0524864.6)		(5/4/2004)	services
			HARRIC DOUNDELL ID
7929682	US	4/19/2011	HARRIS ROUNDELL JR System and method for
7727062	US	4/19/2011	providing communications
(11/072090)	i	(3/4/2005)	services
(11/0/2000)		(3/4/2003)	SCIVICES
			Larry S. Wechter
7613452	US	11/3/2009	System and method for
			providing communications
(11/077334)		(3/10/2005)	services
			Joseph L. Durkee
7970108	US	6/28/2011	System and method for
4			providing communications
(12/572463)		(10/2/2009)	services
(100001			Larry S. Wechter
6433921	US	8/13/2002	MULTIWAVELENGTH
(00/502205)		(B)	PUMPS FOR RAMAN
(09/783395)		(2/15/2001)	AMPLIFIER SYSTEMS
			117 17
6628344	TTO	0/20/2002	Wu, Yongan
002 0344	US	9/30/2003	REMOTE CONTROL
(09/614559)		(7/12/2000)	SYSTEM PROVIDING AN
(02/017332)		(7/12/2000)	AUTOMATIC ASSERTION

Patent/Application Number	Country	<u>Issue Date/</u> <u>Filing Date</u>	Title of Patent and First Named Inventor
			OF A PRESET SELECTION
			VALUE CONCURRENT
			WITH A SUBMISSION OF A
			USER PREFERRED
		1	SELECTION VALUE
((2/272	TIC	10/01/0000	Harold J. Weber
6636273	US	10/21/2003	REMOTE CONTROL
(09/774529)		(2/1/2001)	DEDICATED KEYBUTTON FOR CONFIRMING TUNER
(09/1/4329)	i	(2/1/2001)	SETTING OF A TV SET TO
			A SPECIFIC CHANNEL
			SETTING
			BETTING
			Harold J. Weber
6747590	US	6/8/2004	ALTERNATE COMMAND
(00/270000)		(0.14.0.10.0.04)	SIGNAL DECODING
(09/779992)		(2/12/2001)	OPTION FOR A
			REMOTELY CONTROLLED
			APPARATUS
			Harold J. Weber
6803874	US	10/12/2004	REMOTE CONTROLLER
			CAPABLE OF
(09/963155)		(9/26/2001)	SUBMITTING REAL AND
			VIRTUAL CHANNEL
			NUMBER ENTRIES TO A
			CABLE BOX, SAT-
			RECEIVER OR TV-SET
			Harold J. Weber
6621424	US	9/16/2003	METHOD FOR
(00/50/(00)		(2/12/2222)	PREDICTING KEYSTROKE
(09/506609)		(2/18/2000)	CHARACTERS ON SINGLE
			POINTER KEYBOARDS
			AND APPARATUS THEREFORE
			THEREFORE
			BRAND MATTHEW
6646572	US	11/11/2003	METHOD FOR DESIGNING
(00/50/510)			OPTIMAL SINGLE
(09/506610)		(2/18/2000)	POINTER PREDICTIVE
			KEYBOARDS AND
	:		APPARATUS THEREFORE
			Matthew Brand

Patent/Application Number	Country	<u>Issue Date/</u> Filing Date	<u>Title of Patent</u> and First Named Inventor
6865532	US	3/8/2005	METHOD FOR
(09/956307)	AAAAA	(9/19/2001)	RECOGNIZING SPOKEN IDENTIFIERS HAVING PREDEFINED GRAMMARS
			David Anderson

- (b) any future reissues, reexaminations, extensions, continuations, continuing prosecution application, requests for continuing examinations, divisions, and registrations of any of the Patents;
- (c) rights to apply in any or all countries of the world for future patents, certificates of invention, utility models, industrial design protections, design patent protections, or other future governmental grants or issuances of any type related to the Patents; and
- (d) causes of action and enforcement rights of any kind under, or on account of, any of the Patents and/or any of the items described in either of the foregoing categories (b) or (c), including, without limitation, all causes of action, enforcement rights and all other rights to seek and obtain any other remedies of any kind for past, current and future infringement.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all future patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Assigned Patent Rights in the name of Assignee, as the assignee to the entire interest therein. This Assignment of Patent Rights will inure for the benefit of any permitted successors or assigns of Assignee.

Assignor will, at the reasonable request of Assignee, take all reasonable steps necessary and proper, to confirm the assignment to Assignee of the Assigned Patent Rights pursuant to this Assignment of Patent Rights, 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 and perfecting the Assigned Patent Rights.

IN WITNESS WHEREOF this Assignment	t of Paten	t Rights is exec	cuted on Nower	Jon 15.
2019, to be effective on November	15	_, 2019.		

ASSIGNOR:

Inteli	LECTUAL VENTURES ASSETS 147 LLC
Ву:	Dawn/h
Name:	Lawrence Froeber
Title:	CFO

PATENT REEL: 051406 FRAME: 0855

RECORDED: 01/03/2020