# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4933771

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

# **CONVEYING PARTY DATA**

Name	Execution Date
AJIT BHAVE	07/25/2014
ARUN RAMACHANDRAN	07/25/2014
SAI KRISHNAM RAJU NADIMPALLI	07/11/2014
SANDEEP BELE	07/11/2014

# **RECEIVING PARTY DATA**

Name:	CUMULUS SYSTEMS INC,	
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State/Country:	CALIFORNIA	
Postal Code:	95008	

# **PROPERTY NUMBERS Total: 12**

Property Type	Number
Application Number:	13200996
Application Number:	15376629
Application Number:	15425094
Application Number:	15829697
Application Number:	15876756
Patent Number:	9081829
Patent Number:	9081834
Patent Number:	9479385
Patent Number:	9361337
Patent Number:	9614715
Patent Number:	9477784
Patent Number:	9396287

### **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.

504887030 REEL: 045644 FRAME: 0923

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ATTORNEY DOCKET NUMBER:	CUMULUS ALL CASES TO DATE
NAME OF SUBMITTER:	RONALD C. FISH
SIGNATURE:	/RONALD C. FISH/
DATE SIGNED:	04/26/2018

## **Total Attachments: 5**

source=CSI Invention Assignment July 25 2014 signed#page1.tif source=CSI Invention Assignment July 25 2014 signed#page2.tif source=CSI Invention Assignment July 25 2014 signed#page3.tif source=CSI Invention Assignment July 25 2014 signed#page4.tif source=CSI Invention Assignment July 25 2014 signed#page5.tif

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### ASSIGNMENT

### WHEREAS, We:

AJIT BHAVE, a citizen of the USA, residing at 760 Mayview Avenue, Palo Alto, California, 94303, USA, and

ARUN RAMACHANDRAN, a citizen of the USA, residing at 3503 Emma Court, Palo Alto, California, 94306, USA, and

SAI KRISHNAM RAJU NADIMPALLI, a citizen of INDIA, residing at 175. Fems Habitat, Doddanekundi, Bangalore, INDIA, and

SANDEEP BELE, a citizen of INDIA residing at C1, Telecom Staff Quarters, Chinchwad Station, Pune – 411019, INDIA.

(hereafter referred to as the Inventors), have invented:

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>10/05/2011</u>. Declaration executed on <u>10/5/2011</u>: Application Number <u>13/200.996</u>. Attorney docket <u>CUM-001</u>; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>03/29/2013</u>. Application Number <u>13/853.925</u>, Attorney docket CUM-001,2P; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>03/29/2013</u>. Application Number <u>13/853.862</u>, <u>Attorney docket CUM-001.1P</u>; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>03/29/2013</u>. Application Number <u>13/853.381</u>. Attorney docket CUM-001 D4; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>03/29/2013</u>. Application Number <u>13/853.288</u>. Attorney docket CUM-001 D3; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>10/05/2011</u>. Application Number <u>13/200.995</u>. Attorney docket CUM-001.1D; and

a <u>SYSTEM FOR ORGANIZING AND FAST SEARCHING OF MASSIVE AMOUNTS OF DATA</u> for which we have executed application papers for a U.S. patent thereon on filed on <u>10/05/2011</u>. Application Number <u>13/201.000</u>. Attorney docket CUM-001.2D; and

an invention described and claimed in a PCT application entitled <u>ORGANIZING AND FAST SEARCHING OF DATA</u> for which we have executed said PCT patent application papers for a patent thereon filed on <u>03/29/2013</u>. International Application Number <u>PCT/US13/34540</u> in the name of applicant Cumulus <u>Systems Incorporated, and</u>

WHEREAS, Cumulus Systems Incorporated, a Delaware Corporation, having a place of business at 2672 Bayshore Parkway. Suite 1001. Mountain View. California 94043 (hereafter referred to as Cumulus), is desirous of acquiring the exclusive right, title and interest in and to said invention(s) described in the above identified patent applications, the patent applications themselves and in and to the Letters Patent(s) to be granted and issued therefor in the United States of America and its territories and possessions, and all countries foreign thereto based upon the above identified patent applications;

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NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, We, the Inventors, do hereby sell, assign, transfer and set over unto the said Cumulus its successors and assigns, the full and exclusive right, title and interest worldwide in and to said inventions in the provisional and/or utility or design and PCT patent application(s) identified above, and in and to any and all Letters Patent to be granted and issued therefore on the above identified patent applications) in the United States and any and all foreign patent applications and patents subsequently filed based upon the above identified provisional and/or utility or design and PCT patent applications as well as any and all divisional applications, reissues, re-examination certificates, and continuation applications and continuation-in-part applications of the above identified patent applications as well as any and all rights in any and all Requests for Continuing Examination Applications or Continuing Prosecution Applications of any of the above identified patent applications and any and all divisional applications, continuation applications and continuation-in-part applications, in the United States of America, its territories and possessions as well as in all other countries including all priority rights under the International Convention; I authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from me; I agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, its successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said Cumulus, its successors and assigns, in accordance with this Assignment.

I/We declare that we understand the content of the patent applications identified above which are the subject of this assignment.

I/We declare under penalty of perjury under the laws of the United States of America and India that the foregoing is true and correct.

WITNESS OUR HAND, this 24	<u> day of 💥 ીંઘોપું.</u> ,2014.
Signature Inventor 1, AJIT BHAVE	Air Bare
Signature Inventor 2, ARUN RAMACHANII	DRANRYMM
Signature Inventor 3, SAI KRIHNAM RA	ju nadimpalli <u>VVG</u> ŽŽ
Signature Inventor 4, SANDEEP BELE	<u> 3122-</u>

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STATE OF ONSULATE	PUBLIC OF INDIA F MAHARASHTRA CITY OF MUMBAI GENERAL OF THE ITES OF AMERICA	) ) ss.			
25°	, . +h	)	JULY		<i>a</i>
On this		_day of	<u> </u>	, 2014, be	fore me, a Notary Public,
	John P. Hesfor		duly comm	issioned and s	sworn, personally appeared
<u> </u>	United States of Amo	rica		a a m	
Sai	Krishnam	Raju	Nadimpa	Wi , who i	s(ure) known to me to be the
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in	<u>uuman</u>	******************************	the day an	d year first a	bove written.
			NOTARY	PUBLIC	John P. Hesford Jr. Vice Consul United States of America.

REPUBLIC OF INDIA
STATE OF MAHARASHTRA
CITY OF MUMBAI
CONSULATE GENERAL OF THE
UNITED STATES OF AMERICA

Docket No.: all Cumulus cases

		))ss.			
()n thi	John P. Hesti	) day of	JULY	, 2014, before	me, a Notary Public,
-	Vice Consul Liniud States of At	Berica	, duly comm	issioned and swor	n, personally appeared
Sa	ndeep Bho	uchand	na Bele	, who is(an	c) known to me to be the
person	ı(s) whose name is(a	re) subscribed	to in the withi	n instrument and	acknowledged to me that
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					JUR
			NOTARY	PUBLIC	John P. Hestord Jr. Vice Consul

PATENT REEL: 045644 FRAME: 0928

United States of America

# CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

RECORDED: 04/26/2018 www.NotaryClasses.com

County of Santa Claza	
	A J. PATE OVOLY Public Officer)
personally appeared All, + Bkq ve	2 Arun Rama Chandran
the within instrument and acknowledged to me th	lence to be the person(s) whose name(s) \stare subscribed to at \se/sbe/they executed the same in \stare her/their authorized on the instrument the person(s), or the entity upon behalf of t.
I certify under PENALTY OF PERJURY under the is true and correct.	e laws of the State of California that the foregoing paragraph
WITNESS my hand and official seal.	SUDHA J. PATEL COMM # 1927157 NOTARY PUBLIC - CALIFORNIA U SANTA CLIRAR COUNTY MY COMM. EXP. MAR. 18, 2016
Signature of Notary Public	(Notary Seal)
ADDITIONAL OI	PTIONAL INFORMATION
DESCRIPTION OF THE ATTACHED DOCUMENT  ASSISHMENT  (Title or description of attached document)  (Title or description of attached document continued)	INSTRUCTIONS FOR COMPLETING THIS FORM  Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of Colifornia. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.
Number of Pages 2 Document Date 7/35/14	<ul> <li>State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.</li> <li>Date of notatization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.</li> </ul>
(Additional information)	<ul> <li>The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).</li> <li>Print the name(s) of document signer(s) who personally appear at the time of notarization.</li> </ul>
CAPACITY CLAIMED BY THE SIGNER  Individual (s) Corporate Officer  (Title) Partner(s) Attorney-in-Fact Trustee(s)	<ul> <li>Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/she/they; is /exe) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.</li> <li>The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.</li> <li>Signature of the notary public must match the signature on file with the office of the county clerk.</li> <li>Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.</li> </ul>
☐ Other	<ul> <li>Indicate title or type of attached document, number of pages and date.</li> <li>Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary)</li> <li>Securely attach this document to the signed document.</li> </ul>

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REEL: 045644 FRAME: 0929