#### 506172638 07/27/2020

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6219376

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date	
AIRVANA LP	10/01/2015	

### **RECEIVING PARTY DATA**

Name:	COMMSCOPE TECHNOLOGIES LLC
Street Address:	1100 COMMSCOPE PLACE SE
City:	HICKORY
State/Country:	NORTH CAROLINA
Postal Code:	28602

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16934852

#### **CORRESPONDENCE DATA**

Fax Number: (952)465-0771

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: docketing@fogglaw.com **Correspondent Name:** FOGG & POWERS LLC Address Line 1: 4600 W 77TH STREET

Address Line 2: SUITE 305

Address Line 4: MINNEAPOLIS, MINNESOTA 55435

ATTORNEY DOCKET NUMBER:	1607 US D1/100.1652US03
NAME OF SUBMITTER:	EMILY J. RELLER
SIGNATURE:	/Emily J. Reller/
DATE SIGNED:	07/27/2020

#### **Total Attachments: 10**

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PATENT **REEL: 053316 FRAME: 0830** 506172638

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PATENT REEL: 053316 FRAME: 0831

#### PATENT ASSIGNMENT AGREEMENT

This Patent Assignment Agreement (this "Agreement"), effective as of the execution date written below, is made by Airvana LP ("Assignor"), a Delaware limited partnership, in favor of CommScope Technologies LLC ("Assignee"), a Delaware limited liability company.

#### WITNESSETH:

WHEREAS, pursuant to Section 1.1 of that certain Asset Purchase Agreement, dated as of September 4, 2015, by and among Assignor, Airvana Networks India Private Limited, and Assignee (the "Asset Purchase Agreement"), Assignor desires to transfer to Assignee the Patents (as hereinafter defined);

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby agrees as follows:

- Assignment of the Patents. Assignor does hereby assign, grant, transfer, 1. contribute and deliver to Assignee the full, exclusive and entire right, title, and interest in and to the patents and patent applications listed on Schedule A attached hereto, in and to any divisions, continuations, continuations-in-part, renewals and reissues thereof, and in and to all inventions disclosed and described therein, as well as any corresponding (in whole or in part) future United States or foreign patents and patent applications, and in and to the right to claim any applicable priority rights arising from the schedule patents and patent applications or otherwise required for said corresponding future United States or foreign patents and applications under the terms of any applicable conventions, treaties, statutes, or regulations (collectively, the "Patents"). Assignor hereby requests the Commissioner for Patents to issue any and all Patents to Assignee, as the assignee, for its interest and for the sole use and benefit of Assignee and its assigns and legal representatives. All rights to the Patents, including, without limitation, the right to sue for any damages and other remedies in respect of any infringement of the Patents which may have occurred prior to the date of this Agreement shall be the sole property of Assignee and inure to the benefit of Assignee.
- 2. <u>Further Assurances</u>. Assignor agrees to sign all documents, including assignments, transfers and related powers of attorney, and take all further actions as reasonably requested by Assignee to effect, record, perfect or enforce the transfers set forth in this Agreement and ensure that all of Assignor's right, title and interest in and to the Patents and all registrations and recordations thereof, are properly assigned to Assignee, its successors and assigns in accordance with this Agreement.
- 3. <u>Successors and Assigns</u>. The terms and provisions of this Agreement and the respective rights and obligations of Assignor and Assignee hereunder shall be binding upon, and inure to the benefit of, their respective successors and assigns.
- 4. <u>Recordings</u>. An executed copy of this Agreement may be filed with the United States Patent and Trademark Office or in the patent office of any other country or region, as applicable, by Assignee or Assignor at any time.

PATENT REEL: 056926 FRAME: 0842 IN WITNESS WHEREOF, Assignor has caused this Agreement to be executed and delivered as of the execution date written below.

AIRVANA LP

Name: Kicl

e: Kichard Lowe

Title: President

Execution Date: October 1, 2015

\* \* \* \*

[Signature page to Patent Assignment Agreement]

# Schedule A

Country Name	Filed Date	Serial#	Title	Issue Date	Patent #
UNITED 12/15/200 STATES 12/15/200	12/15/2006	11/640,415	CONTROLLING REVERSE LINK INTERFERENCE IN PRIVATE ACCESS POINTS FOR	4/17/2012	8,160,629
			WIRELESS NETWORKING		
UNITED STATES	12/15/2006	11/640,501	PROVISIONING PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	4/1/2014	8,688,809
UNITED KINGDOM	9/6/2007	0905844.7	PROVISIONING PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	3/9/2011	2456090
UNITED STATES	12/15/2006	11/640,503	CONFIGURING PREFERRED USER ZONE LISTS FOR PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	12/13/2011	8,078,165
UNITED STATES	12/20/2006	11/642,245	COMMUNICATION GROUP CONFIGURATION IN A NETWORK	6/4/2013	8,457,084
CHINA	12/18/2007	200780051497.8	COMMUNICATION GROUP CONFIGURATION IN A NETWORK		
UNITED KINGDOM	12/18/2007	0910839.0	COMMUNICATION GROUP CONFIGURATION IN A NETWORK	5/11/2011	2457413
JAPAN	12/18/2007	2009-543127	COMMUNICATION GROUP CONFIGURATION IN A NETWORK	7/12/2013	5313918

Country Name	Filed Date	Serial #	Title	Issue Date	Patent#
UNITED STATES	12/28/2006	11/617,298	ASSIGNING CODE SPACE TO PORTABLE BASE STATIONS	7/24/2012	8,229,498
UNITED STATES	7/23/2012	13/555,830	ASSIGNING CODE SPACE TO PORTABLE BASE STATIONS	5/20/2014	8,731,574
UNITED STATES	12/27/2006	11/645,986	AUTHENTICATION PROTOCOL	5/8/2012	8,176,327
UNITED STATES	12/29/2006	11/618,106	HANDOFF OF A SECURE CONNECTION AMONG GATEWAYS	4/12/2011	7,926,098
UNITED STATES	4/13/2007	11/735,107	ACTIVATING PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	3/19/2013	8,400,989
UNITED STATES	4/13/2007	11/735,073	CONTROLLING ACCESS TO PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	7/15/2014	8,781,483
UNITED KINGDOM	4/11/2008	0918096.9	CONTROLLING ACCESS TO PRIVATE ACCESS POINTS FOR WIRELESS NETWORKING	11/30/2011	2461444
UNITED STATES	12/31/2007	11/967,370	NETWORK ADDRESS TRANSLATION FOR TUNNEL MOBILITIY	1/1/2013	8,345,694
UNITED STATES	8/3/2007	11/833,740	DISTRIBUTED NETWORK	9/24/2013	8,543,139
UNITED STATES	12/31/2007	11/968,090	ADAPTATION OF PORTABLE BASE STATIONS INTO CELLULAR NETWORKS	10/8/2013	8,554,231

Country Name	Filed Date	Serial #	Title	Issue Date	Patent #
UNITED	3/28/2011	13/073,512	ADAPTATION OF	6/10/2014	8,750,271
STATES			PORTABLE BASE		
			STATIONS INTO		
			CELLULAR		
			NETWORKS		
UNITED	12/19/2008	1011043.5	ADAPTION OF	8/1/2012	1011043.5
KINGDOM			PORTABLE BASE		
			STATIONS INTO		
			CELLULAR		
			NETWORKS (as		
			amended)		
INDIA	12/19/2008	2406/KOLNP/2010	AGGREGATING		
			PORTABLE BASE		
			STATIONS OF		
			FEMTOCELLS		
UNITED	12/21/2007	11/962,983	ALLOCATING	5/28/2013	8,452,299
STATES		ĺ	CODE SPACE TO		
			BASE STATIONS		
UNITED	9/24/2007	11/903,742	SELECTING	11/26/2013	8,594,663
STATES		,	EMBEDDED CELLS		, ,
			IN WIRELESS		
			NETWORKS		
UNITED	10/2/2007	11/866,238	WIRELESS	4/26/2011	7,933,619
STATES		117000,230	CONTROL OF		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			ACCESS POINTS		
UNITED	10/2/2008	1005735.4	WIRELESS	9/19/2012	2466155
KINGDOM		1003733.1	CONTROL OF		
			ACCESS POINTS		
UNITED	12/18/2007	11/958,975	ABSOLUTE TIME	8/27/2013	8,520,659
STATES			RECOVERY		-,,
UNITED	12/19/2007	11/960,026	PROXIMITY	1/15/2013	8,355,727
STATES	12/19/2007	11/700,020	DETECTION IN A	1/13/2013	0,333,727
BIALLO			NETWORK		
UNITED	12/28/2007	11/966,195	SECURE MOBILE	<del>                                     </del>	8,060,058
STATES	12/20/2007	11/900,193	BASE STATION	11/13/2011	8,000,038
BIALLS			CONNECTIONS		
UNITED	12/21/2007	11/962,734	PROVIDING ZONE	12/24/2013	8,615,593
STATES 12/21/	12/21/2007	11/204,134	INDICATIONS FOR	12/27/2013	0,010,020
OIMIES			WIRELESS		
			NETWORKING		
UNITED	12/18/2007	11/958,934	ATTRACTING	9/4/2012	8,259,671
	12/10/2007	11/700,704	ACCESS	7/4/2012	0,239,071
STATES			į.		
			TERMINALS		

Country Name	Filed Date	Serial #	Title	Issue Date	Patent #
UNITED	12/31/2007	11/968,088	IMS SECURITY FOR		
STATES			FEMTOCELLS		
UNITED	12/21/2007	11/963,574	ADJUSTING	12/9/2014	8,909,278
STATES			WIRELESS SIGNAL	# # # # # # # # # # # # # # # # # # #	
			TRANSMISSION		
~~~			POWER	 	
UNITED	12/18/2008	1010586.4	ADJUSTING	9/12/2012	2468451
KINGDOM			WIRELESS SIGNAL	X X X X X X X	
			TRANSMISSION		
* ** *******	10/01/0005	11/0/7/005	POWER	11/16/2010	5.005.600
UNITED	12/31/2007	11/967,925	INTERFERENCE	11/16/2010	7,835,698
STATES			MITIGATION IN		
			WIRELESS NETWORKS		
UNITED	12/27/2007	11/965,070	INTERFERENCE	4/24/2012	8,165,528
STATES	12/27/2007	11/903,070	MITIGATION IN	4/24/2012	0,100,02.0
DITTEL			WIRELESS		
			NETWORKS		
UNITED	12/19/2007	11/960,100	MANAGING	7/19/2011	7,983,672
STATES		,	COMMUNICATIONS		, ,
			WITH PRIVATE		
			ACCESS POINTS IN	X X X X X X X	
			WIRELESS		
			NETWORKS		
UNITED	12/28/2007	11/966,535	SECURE PROXIES	3/19/2013	8,402,143
STATES			FOR FLAT		
* ** *********************************	10/10/000	1011011	NETWORKS	0/40/2012	
UNITED	12/18/2008	1011041.9	SECURE PROXIES	9/19/2012	2468259
KINGDOM			FOR FLAT NETWORKS		
UNITED	0/02/0000	10/026 400	ACCESS TERMINAL	7/24/2012	0 220 207
STATES	9/23/2008	12/236,420	AUTHORIZATION	1/24/2012	8,229,397
BIAILB			AT PRIVATE		
			ACCESS POINTS IN	X 3 4 5 7 8 8 8	
			WIRELESS		
			NETWORKS		
UNITED	8/29/2008	12/201,380	PRIVATE ACCESS	10/23/2012	8,295,256
STATES		,	POINT BEACON		
			SIGNALS IN		
			WIRELESS		
			NETWORKS		
EUROPEAN	8/1/2005	05767588.6	SIGNAL	4/25/2012	1779543
PATENT			TRANSMISSION		
CONVENTION			METHOD FROM A		

Country Name	Filed Date	Serial#	Title	Issue Date	Patent #
- UK			LOCAL NETWORK NODE		
UNITED KINGDOM	8/1/2005	05767588.6	SIGNAL TRANSMISSION METHOD FROM A LOCAL NETWORK NODE	4/25/2012	1779543
UNITED STATES	1/30/2007	11/572,973	SIGNAL TRANSMISSION METHOD FROM A LOCAL NETWORK NODE	8/6/2013	8,503,342
UNITED STATES	3/29/2011	13/074,813	METHOD AND SYSTEM OF SETTING TRANSMITTER POWER LEVELS	11/13/2012	8,311,570
UNITED STATES	11/9/2012	13/673,648	METHOD AND SYSTEM OF SETTING TRANSMITTER POWER LEVELS	11/11/2014	8,886,249
EUROPEAN PATENT CONVENTION	8/1/2005	05767920.1	POWER CONTROL IN A LOCAL NETWORK NODE (LNN)		
UNITED STATES	1/30/2007	11/572,977	POWER CONTROL IN A LOCAL NETWORK NODE (LNN)	10/16/2012	8,290,527
EUROPEAN PATENT CONVENTION	8/1/2005	05767600.9	A LOCAL NETWORK NODE		
UNITED STATES	1/30/2007	11/572,979	A LOCAL NETWORK NODE		
UNITED KINGDOM	10/7/2006	0619892.3	IN-C DEVICE TO CORE NETWORK INTERFACE SPECIFICATION	8/10/2011	2452688
UNITED STATES	10/7/2008	12/246,861	ALLOCATING COMMUNICATION FREQUENCIES TO CLUSTERS OF	1/27/2015	8,942,136

Country Name	Filed Date	Serial#	Title	Issue Date	Patent #
			ACCESS POINTS		
UNITED STATES	12/24/2008	12/343,850	OBTAINING TIME INFORMATION IN A CELLULAR NETWORK	2/19/2013	8,379,625
UNITED STATES	12/29/2008	12/345,472	PROVIDING A CELLULAR NETWORK WITH CONNECTIVITY TO A DIFFERENT NETWORK	2/10/2015	8,953,566
UNITED STATES	12/31/2008	12/347,574	PERSONAL ACCESS POINT MEDIA SERVER	7/7/2015	9,078,284
UNITED STATES	12/23/2008	12/343,438	ACCESS TERMINAL HAND-OFF METHODS IN WIRELESS NETWORKS	7/8/2014	8,774,134
UNITED STATES	12/31/2008	12/347,511	GEOGRAPHY AWARE PEER-TO- PEER OVERLAY CREATION	10/2/2012	8,280,376 B2
UNITED STATES	12/30/2008	12/346,464	INFORMATION SHARING IN A PRIVATE ACCESS POINT NETWORK	5/1/2012	8,170,598
UNITED STATES	11/18/2011	13/300,242	INFORMATION SHARING IN A PRIVATE ACCESS POINT NETWORK	12/4/2012	8,326,342
UNITED STATES	12/23/2008	12/343,445	ESTIMATING BANDWIDTH IN COMMUNICATION NETWORKS	8/9/2011	7,995,493
UNITED STATES	12/31/2008	12/347,201	FEMTO PERSONAL PROXY APPLICATION CLIENT		
UNITED STATES	12/31/2008	12/347,234	FEMTO PERSONAL POLICY SERVER	4/8/2014	8,693,987
UNITED STATES	1/7/2009	12/350,156	POWER CONTROL FOR REVERSE LINK	4/17/2012	8,160,631

Country Name	Filed Date	Serial #	Title	Issue Date	Patent #
UNITED	5/18/2009	12/467,913	MULTI-CARRIER	9/24/2013	8,542,707
STATES			SYSTEM		
			SELECTION		
JAPAN	5/17/2010	2012-511941	MULTI-CARRIER	11/29/2013	5420069
			SYSTEM		
			SELECTION		
SOUTH	5/17/2010	10-2011-7030037	MULTI-CARRIER	2/14/2014	10-
KOREA			SYSTEM		1365583
V 73 777717775	2/17/2000	# # 1 1 0 M . C 1 1	SELECTION	0/18/2011	0.007.277
UNITED	3/17/2009	12/405,641	IDENTIFYING	8/12/2014	8,805,371
STATES			HAND-OVER		
7 73 77 77 77 77	6/0/0010	10/MOM 100	TARGETS	0/06/00/10	0.207.201
UNITED	6/9/2010	12/797,138	MOBILITY IN A	2/26/2013	8,385,291
STATES			WIRELESS ENTERPRISE		
UNITED	2/25/2013	12/77/ 427	NETWORK MODILITY IN A	10/28/2014	0.072.510
STATES	2/23/2013	13/776,427	MOBILITY IN A WIRELESS	10/28/2014	8,873,512
SIAIES			ENTERPRISE		
			NETWORK		
UNITED	6/30/2009	12/495,125	MOBILE AWARE	3/15/2011	7,907,571
STATES	0/30/2009	12/493,123	BEACON	3/13/2011	7,907,371
*******************************	10/7/2000	10/595 110	***************************************	5/6/2014	0.710.707
UNITED STATES	10/7/2009	12/575,113	MITIGATING INTERFERENCE	5/6/2014	8,718,697
SIAIES			USING		
			COOPERATIVE		
			SCHEDULING		
UNITED	11/30/2009	12/627,285	DETERMINING IF	12/25/2012	8,340,636
STATES	11/30/2009	1 501 0 50 1 , 50 0 5	AN ACCESS	12/23/2012	6,540,030
DITTIE			TERMINAL IS		
			AUTHORIZED TO		
			USE AN ACCESS		
			POINT		
UNITED	5/31/2013	13/907,508	PROVIDING		
STATES		,	CIRCUIT		
			SWITCHED		
			SERVICE		
UNITED	2/7/2013	13/762,283	RADIO ACCESS		
STATES			NETWORKS		
WIPO	2/6/2014	PCT/US2014/015137	RADIO ACCESS		
, , seems to the second	3, 3, 2, 3		NETWORKS		
UNITED	2/7/2013	13/762,284	RADIO ACCESS		
STATES	112013	1 . J. 1 . O ku g ku O T	NETWORKS		
DIVIED			TATEL AS OUTED	<u>l</u>	

Country Name	Filed Date	Serial #	Title	Issue Date	Patent #
UNITED STATES	2/7/2013	13/762,292	RADIO ACCESS NETWORKS		
UNITED STATES	6/9/2015	14/734,311	RADIO ACCESS NETWORKS		
WIPO	6/9/2014	PCT/US2015/034829	RADIO ACCESS NETWORKS		
UNITED STATES	6/9/2014	62/009,653	RADIO ACCESS NETWORKS		
UNITED STATES	9/16/2014	62/051,212	RADIO ACCESS NETWORKS		

RECORDED: 00/22/2026