#### 506629925 04/26/2021

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6676734

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JAMES WILDE	10/11/2019
ASHOK SONI	11/12/2019
HAWK MCGINTY	11/12/2019
JAMES SHULER	11/12/2019
LIXING ZHANG	01/11/2019
NARAYANAN SEKHAR	11/12/2019
XIAOMEI SUN	01/07/2021
XINHUA YANG	11/12/2019
MICHAEL DISANTE	11/12/2019

### **RECEIVING PARTY DATA**

Name:	DISH NETWORK LLC	
Street Address:	9601 S. MERIDIAN BLVD.	
City:	ENGLEWOOD	
State/Country:	COLORADO	
Postal Code:	80112	

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

Property Type	Number
Application Number:	17240675

### **CORRESPONDENCE DATA**

Fax Number: (480)385-5061

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.

Phone: 480 385 5060 IPDEPT@dish.com Email: Correspondent Name: LKGLOBAL (DISH) Address Line 1: 7010 E. COCHISE ROAD

Address Line 4: SCOTTSDALE, ARIZONA 85253-1406

ATTORNEY DOCKET NUMBER: 066.0726USC1 NAME OF SUBMITTER: ADITYA KRISHNAN

**PATENT** REEL: 056043 FRAME: 0499 506629925

SIGNATURE:	/ADITYA KRISHNAN/	
DATE SIGNED:	04/26/2021	
Total Attachments: 10		
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PATENT REEL: 056043 FRAME: 0500

# ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

WHEREAS, JAMES WILDE, ASHOK SONI, HAWK MCGINTY, JAMES SHULER, LIXING ZHANG, MICHAEL DISANTE, NARAYANAN SEKHAR, XIAOMEI SUN, and XINHUA YANG (hereinafter, singularly and collectively "Assignor") have jointly (as appropriate) invented and/or discovered certain new and useful invention, process, machine, manufacture, or composition of matter, or any new and useful improvement in an invention as described in an Provisional application entitled "METHOD AND SYSTEM FOR IMPLEMENTING AN ELASTIC CLOUD-BASED VOICE SEARCH UTILIZED BY SETTOP BOX (STB)CLIENTS" filed in and/or with the United States Patent and Trademark Office on October 17, 2019, and which has been assigned Application Serial Number 16/655,482 and which is further identified by the Dish Docket No. set forth above (hereinafter, the "Invention"); and

WHEREAS, DISH Network L.L.C., a limited liability company organized and existing under the laws of the State of Colorado, United States of America and having a principal place of business of 9601 S. Meridian Blvd., Englewood, Colorado 80112 (hereinafter, the "Assignee") desires to acquire all rights, title and interest in and to the Invention, including, but not limited to, all rights, title and interest in and to past, present and future damages, injunctive relief and to any and all other additional rights, title, interest, relief and/or remedies granted by any legislative, judicial, quasi-judicial, administrative or other body, or otherwise; and

WHEREAS, Assignor, to the extent they own any right, title and interest in and to the Invention are desirous of assigning any and all such rights, title and/or interest to Assignee.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby sells, assigns, transfers and sets over unto Assignee and its legal representatives, successor and assigns, the entire right, title and interest, including any all rights in and/or to past, present and future damages, injunctive relief and/or any other remedy and relief granted by a legislative, judicial, quasi-judicial or administrative body, in and to said Invention, said application, for any and all provisional, non-provisional, national, international, foreign, and regional applications corresponding and/or claiming priority thereto, any divisions, continuations, continuation-in-parts, reissues, reexaminations, renewals, and extensions thereof, and the Letters Patent, both foreign and domestic, that may or shall issue thereon, and does request the Commissioner of Patents to issue said Letters Patent to the Assignee, consistent with the terms of this agreement.

Assignor hereby authorizes Assignee to insert in this instrument the filing date and Application Serial Number in the above fields if not already present at the time of execution of this instrument.

Assignor hereby declares that he/she is the sole inventor (if only one inventor is named herein) or an original, first and joint inventor (if plural inventors are named herein) of the Invention.

UPON SAID CONSIDERATION, Assignor hereby covenants and agrees with Assignee that they will not execute any writing or do any act whatsoever conflicting with these presents, and agrees

Page 1 of 7

UPON SAID CONSIDERATION, Assignor hereby covenants and agrees with Assignee that they will not execute any writing or do any act whatsoever conflicting with these presents, and agrees that, when requested, he/she will, without charge to Assignee but at its expense, execute such additional assignments, declarations and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, renewal, reissued or extended Letters Patent of the United States, or of any and all foreign countries, on said invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties.

Assignor agrees that he/she will communicate to Assignee or its representatives any facts known to Assignor respecting said inventions within a reasonable time of discovering or coming into possession of the same.

Assignor authorizes and empowers Assignee, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in Assignor's name, in any and all countries to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

Assignor hereby consent that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of Assignee or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

Assignor covenants with Assignee, its successors, assigns, legal representatives, and nominees, that to the best of Assignor's knowledge the right, title and interest herein conveyed are free and clear of any encumbrance, and that Assignor has the full right to convey the same as herein expressed.

This Agreement and Assignment supersedes all other assignments, agreements and addendums related to the above-identified application.

After this Assignment has been recorded, please return it to:

Attn: Max S. Gratton, Director and Senior Corporate Counsel, IP DISH Network L.L.C.
9601 S. Meridian Blvd.
Englewood, CO 80112

**********			April 1	
JOINT				
Inventor (1):	JAMES WILDE			************
	(Name)		(Menature in Full)	
			AND THE PROPERTY OF THE PROPER	
	· a manage Am B			
On this	day of <u>OCI 015F/K</u>	2019, before	me a notary public in and for the	county of
- Day Gry	In the State of	COLONADO.	appeared JAMES WILDI se name is subscribed to the t	E, who is
personally ki	nown to me to be the sa	ame person who	se name is subscribed to the f	toregoing
•		-	lelivered the same instrument as a	i free and
voluntary act	for the use and purposes th	ierem set forth.	KATHY AM GRAHAM	
1 A all	20 00 A 1	š	NOTARY PUBLIC STATE OF COLORADO	
162414/C	J.///. D/A/U/A	Secretary.	Notary ID 20124008498	
My Commiss	1.///. G/2/4/4/ ion Expires: 7/4/4/	100 C	My Commission Expires 02/14/2020	
Notary Public	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
£				
JOINT				
Inventor (2):	ASHOK SONI			
•	(Name)	(Sig	mature in Full)	
	2 0	*****	*** * * * *	
On this	day of	, 2019, before:	me a notary public in and for the c	county of
*** **	in the State of		appeared ASHOK SONI	l, wno is
berronana kr	iown to the to be the Se	ame person who	se name is subscribed to the i	oregoing
			elivered the same instrument as a	rree and
vommary act	for the use and purposes th	erem set tortn.		
My Commiss	ion Expires:	***************************************	(Scal)	
Notary Public				

JOINT		
Inventor (1):	JAMES WILDE	
	(Name)	(Signature in Full)
is personally instrument, an	known to me to be the same	2019, before me a notary public in and for the county, appeared JAMES WILDE, who e person whose name is subscribed to the foregoing l, seals and delivered the same instrument as a free and a set forth.
My Commissi Notary Public	on Expires:	(Seal)
JOINT Inventor (2):	ASHOK SONI (Name)	(Signature in Full)
On this 12	day of November,	2019, before me a notary public in and for the county

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JOINT		Ad Allender
Inventor (3):	HAWK MCGINTY	/184 /4845-23
	(Name)	(Signature in Full)
On this 12'	<u> </u>	, before me a notary public in and for the coun
of area	ahoe in the State of Col	vado appeared HAWK MCGINT
who is person	ally known to me to be the same p	erson whose name is subscribed to the foregois
		is and delivered the same instrument as a free at
5	or the use and purposes therein set for	
	* *	A SETTLE SALVE A SECURIO DE
	O at Oa a	CNOTARY PIECE STATE OF COLORADO
	Onthoro Modra on Expires 12/14/21	NOTARY ID 20054048173
Notary Public		
Tavos and the		
JOINT	Y & B 877004 C47 EE EF EFFS	$\Lambda$ , $\mathcal{L}_{\mathbf{k}}I_{\mathbf{k}}$
Inventor (4):		
	(Name)	(Signature in Full)
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On this	day of <i>7(whember,</i> 2019	, before me a notary public in and for the coun
of Unapas	kol in the State of <u>CA</u>	<u>タンタッん)</u> , appeared JAMES SHULEI
7	•	erson whose name is subscribed to the foregoin
5		s and delivered the same instrument as a free ar
voluntary act f	or the use and purposes therein set for	orth.
/	24-201	31A15 OF COLOSÁDO 127A1 NOTARY 10 20054048 : 72
No. Camera in a	## 10 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 2021
1 7	on Expites: <u>/2//4/2)</u>	(2031)
Notary Public		

JOINT			
inventor (5):	LIXING ZHAN	iG	
	(Name)		(Signature in Full)
On this	day of	, 2019,	before me a notary public in and for the county
of	in	the State of	. appeared LIXING ZHANG.
instroment, ar	nd acknowledged	that he signed, seals	before me a notary public in and for the countyappeared LIXING ZHANG, rson whose name is subscribed to the foregoing and delivered the same instrument as a free and
voluntary act	for the use and pu	urposes therein set fo	erth.
My Commiss	ion Expires:		(Seal)
Notary Public	· · · · · · · · · · · · · · · · · · ·		(
JOINT Inventor (6):	MICHAEL DIS	ANTE	//////////////////////////////////////
	(Name)		(Signature&i Full)
On this	<u> </u>	<u>v. 1019,</u> 2019, 1 the State of	before me a notary public in and for the county  Colonado appeared MICHAEL
			he same person whose name is subscribed to the
foregoing inst	rument, and ackn	owledged that he sig	gned, seals and delivered the same instrument as
a free and voh	untary act for the	use and purposes the	arein set forth.
	. <del>Madyn</del> on Expres:	<u>.</u> 2/4/2)	
a serious y a socialist.			· · · · · · · · · · · · · · · · · · ·

JOINT		
Inventor (5):	LIXING ZHANG	/ LIXING ZHANG /
	(Name)	(Signature in Full)
On this	dav of	, 2019, before me a notary public in and for the county of
	in the State of	, appeared LIXING ZHANG, who is
personally kno	own to me to be the same p	, 2019, before me a notary public in and for the county of, appeared <b>LIXING ZHANG</b> , who is person whose name is subscribed to the foregoing instrument,
and acknowle	dged that he signed, seals	and delivered the same instrument as a free and voluntary act
for the use and	d purposes therein set forth	1.
My Commiss	ion Expires:	(Seal)
Notary Public	e	(5011)
JOINT Inventor (6):	MICHAEL DISANTE	
mivemen (6).	(Name)	(Signature in Full)
	(ivanic)	(Signature in 1 tin)
On this	day of	, 2019, before me a notary public in and for the county of
	in the State of	, appeared MICHAEL DISANTE,
who is persor	nally known to me to be t	he same person whose name is subscribed to the foregoing
		igned, seals and delivered the same instrument as a free and
voluntary act	for the use and purposes the	nerein set forth.
My Commissi		
ivry Commiss.	ion Expires:	(Seal)

JOINT		AN 1	
Inventor (7):	<u>NARAYANAN SEKHAR</u>	S Nasyenn (Signature in Full)	
	(Name)	(Signature in Full)	
On this 19	M down of Manage	2010 harrown a major within in and for the an	
of Again	he in the State of	2019, before me a notary public in and for the conf of <u>Colorado</u> , appeared NARAYAN	uniy IANI
SEKHAR W	ho is nersonally known to me	to be the same person whose name is subscribed to	rana r r thes
foregains inch	rument and admondadged the	it he cloned earle and delivered the come incremer	
a free and volu	intary act for the use and nume	oses therein set for	
	and the second s	ANTHONY MEDINA	
0_	-1 m 1:		
- 128 No. C	<u> Zhori Medina</u> on Expires: <u>121/4/21</u>	- COMMISSION EXPRESS DECISION 16, 2021	
Notary Public	On Expires: (2//6/2)	(2est)	ga.
INDIALY PROBE			
ioine			
JOINT	XIAOMEI SUN		
JOINT Inventor (8):		(Signature in Full)	
i	XIAOMEI SUN (Name)	(Signature in Full)	
Inventor (8):	(Name)	· •	
Inventor (8):	(Name)	· •	unty
Inventor (8): On this of	(Name)day of,in the State of	2019, before me a notary public in and for the con	unty who
Inventor (8): On this of is personally	(Name)day of in the State of known to me to be the same	2019, before me a notary public in and for the con appeared XIAOMEI SUN, version whose name is subscribed to the forego	gang
Inventor (8):  On this of is personally instrument, an	(Name) day of, in the State of known to me to be the same d acknowledged that he signer	2019, before me a notary public in and for the con appeared XIAOMEI SUN, on the foregon whose name is subscribed to the foregon, and delivered the same instrument as a free	ganc
Inventor (8):  On this of is personally instrument, an	(Name)day of in the State of known to me to be the same	2019, before me a notary public in and for the con appeared XIAOMEI SUN, on the foregon whose name is subscribed to the foregon, and delivered the same instrument as a free	gang
Inventor (8):  On this of is personally instrument, an	(Name) day of, in the State of known to me to be the same d acknowledged that he signer	2019, before me a notary public in and for the con appeared XIAOMEI SUN, on the foregon whose name is subscribed to the foregon, and delivered the same instrument as a free	gang
Inventor (8):  On this of is personally instrument, an	(Name) day of, in the State of known to me to be the same d acknowledged that he signer	2019, before me a notary public in and for the con appeared XIAOMEI SUN, on the foregon whose name is subscribed to the foregon, and delivered the same instrument as a free	gang
Inventor (8):  On this  of  is personally instrument, an voluntary act i	(Name) day of, in the State of known to me to be the same d acknowledged that he signer	2019, before me a notary public in and for the con appeared XIAOMEI SUN, on the foregon whose name is subscribed to the foregon, and delivered the same instrument as a free	gang

JOINT		
Inventor (7):	NARAYANAN SEKHA	AR (CC) (CC) (CC) (CC)
	(Name)	(Signature in Full)
On this	day of	, 2019, before me a notary public in and for the county of, appeared NARAYANAN o me to be the same person whose name is subscribed to the
	in the State	e of, appeared NARAYANAN
foregoing inst	rument, and acknowledge	o me to be the same person whose name is subscribed to the ed that he signed, seals and delivered the same instrument as purposes therein set forth.
My Commiss	ion Expires:	(Seal)
Notary Public	;	
JOINT	XIAOMEI SUN	(Signature in Full)
	(Name)	(Signature in Full)
On this	day of	, 2019, before me a notary public in and for the county of appeared XIAOMEI SUN, who is
11 1	in the State of	same person whose name is subscribed to the foregoing
personally ki	nd advantaged that he	signed, seals and delivered the same instrument as a free and
voluntary act	for the use and purposes t	therein set forth.
My Commiss	ion Expires:	(Seal)
Notary Public		

JOINT	WINEST LA NZ ANIZE	And Administration of the second
mvemor (9).	XINHUA YANG (Name)	(Signature in Full)
On this 12 <sup>th</sup> day of Normand, 2019, before me a notary public in and for the county of <u>Oraga ke</u> in the State of <u>Colora lo</u> , appeared XINHUA YANG, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, seals and delivered the same instrument as a free and		
voluntary act	for the use and purpor	
My Commissi Notary Public	entrone Medena on Explos: 12/	14/21 SCHOOL STORY 18, 227