504867461 04/13/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYA			
CONVEYING PARTY	ΔΤΑ		
		Name	Execution Date
CHANNASANDRA RAV	VISHANKA	R	04/12/2018
JOHN CORRIGAN			04/12/2018
DEEPAK ARUR			04/13/2018
YASH VASAVADA			03/20/2018
RECEIVING PARTY D	ΑΤΑ		
Name:	HUGHE	S NETWORK SYSTEMS, LLC	
Street Address:	11717 E	XPLORATION LANE	
City:	GERMA	NTOWN	
State/Country:	MARYL	AND	
Postal Code:	20876		
		NIIMAA	
Property Type Application Number:		Number 5700098	
Application Number:	1		
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Assignor(s):	Channasandra RAVISHANKAR, John CORRIGAN, Deepak ARUR, Yash VASAVADA			
Assignee:	Hughes Network Systems, LLC 11717 Exploration Lane, Germantown, Maryland, U.S.			
Patent Applic	ation(s):			
Title:	SYSTEM AND METHOD FOR EFFICIENT BROADCAST OF SATELLITE CONSTELLATION EPHEMERIS INFORMATION			
	executed by the undersigned concurrently herewith			
	Application No(s): 15700098 Filing Date: 2017-09-09			

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, I/we, the above-named Assignors, hereby:

sell, assign and transfer to the above-named Assignee (and its successors, assigns and legal representatives) the entire right, title and interest (for the United States and all foreign countries) in and to: (1) the above-identified patent application(s) ("the Application(s)"), including any and all improvements that are disclosed in the Application(s); and (2) all divisional, continuing, substitute, renewal, reissue and all other patent applications, which have been or are subsequently filed in the United States and any and all foreign countries, based on or claiming priority to the Application(s), or based on any of said improvements; and (3) all original and reissued patents that have been or are subsequently issued in the United States and any and all foreign countries from the Application(s) or based on any of said improvements; and (4) any and all rights of priority arising from the filing of the Application(s) in the United States and any and all foreign countries; and

agree that the Assignee may apply for and receive a patent or patents from the Application(s) and for said improvements in its own name; and that, to carry out in good faith the intent and purpose of this Assignment, I/we (without charge to, but at the expense of the Assignee) shall: execute the Application(s), and all divisional, continuing, substitute, renewal, reissue and other patent applications based on or claiming priority to the Application(s), or based on any and all of said improvements, and execute all associated assignments and powers of attorney; convey to the Assignee (and its successors, assigns and legal representatives) all known facts relating to the Application(s) said improvements and the history thereof; and generally assist the Assignee (and its successors, assigns and legal representatives) in securing and maintaining proper patent protection for the Application(s) and said improvements, and for vesting title in and to the Application(s), and all applications for patents and all patents on said improvements, in the Assignee (and its successors, assigns and legal representatives); and

grant, mo	ortgage, license, or other agreement affecting the by the Assignor(s), and that full right to conv	assigns and legal representatives) that no assignment, he rights and property herein conveyed has been made ey the same as herein expressed is possessed by the
Date:	April 12, 2018 Channas RAVISHA	
Date:	John CORF	IGAN:
Date:	Deepak	ARUR:
Date:	Yash VASA	/ADA:

Assignor(s):	ignor(s): Channasandra RAVISHANKAR, John CORRIGAN, Deepak ARUR, Yash VASAVADA			
Assignee:	Assignee: Hughes Network Systems, LLC 11717 Exploration Lane, Germantown, Maryland, U.S.			
Patent Appli	cation(s):			
Title:	Title: SYSTEM AND METHOD FOR EFFICIENT BROADCAST OF SATELLITE CONSTELLATION EPHEMERIS INFORMATION			
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> PATENT REEL: 045532 FRAME: 0277

Page 1 of 2

covenant with the Assignee (and its successors, assigns and legal representatives) that no assignment,	
grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made	je j
to others by the Assignor(s), and that full right to convey the same as herein expressed is possessed by the	
Assignor(s).	

Date:		Channasandra RAVISHANKAR:	
Date:	4/12/18		iihuunaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
Date:		Deepak ARUR:	
Date:		Yash VASAVADA:	

Assignor(s):	Channasandra RAVISHANKAR, John CORRIGAN, Deepak ARUR, Yash VASAVADA					
Assignee:	Hughes Network Systems, LLC					
	11717 Exploration L	ane, Germantown, I	Maryland, U.S.			
Patent Applic	Patent Application(s):					
Title:	SYSTEM AND METHOD FOR EFFICIENT BROADCAST OF SATELLITE CONSTELLATION EPHEMERIS INFORMATION					
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\boxtimes	Application No(s):	15700098	Filing Date:	2017-09-09		

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Page 1 of 2

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Date:	Channasandra RAVISHANKAR:	
Date:	John CORRIGAN:	
Date: 2018-04-13	Deepak ARUR:	Knform.
Date:	Yash VASAVADA:	

Assignor(s):	Channasandra RAVI	SHANKAR, John COF	RIGAN, Deepak ARUR,	, Yash VASAVADA
Assignee:	Hughes Network Sy:	stems, LLC		
	11717 Exploration L	ane, Germantown, I	Maryland, U.S.	
Patent Applic	ation(s):			
Title:	SYSTEM AND METH	OD FOR EFFICIENT B	ROADCAST OF SATELL	ITE CONSTELLATION EPHEMERI
	executed by the unc	lersigned concurren	tly herewith	
×	Application No(s):	15700098	Filing Date:	2017-09-09

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Date:		Channasandra RAVISHANKAR:			
Date:		John CORRIGAN:			
Date:		Deepak ARUR:			
Date:	20 th March 2018	Yash VASAVADA:	Ymri 	Jaxk W Vaxavada	