

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT4831737

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ERIC J. BLACK	01/31/2018
BRIAN MARK DEUTSCH	01/31/2018
ALEXANDER REMLEY KATKO	01/31/2018
MELROY MACHADO	02/01/2018
JAY HOWARD MCCANDLESS	02/27/2017
YAROSLAV A. URZHUMOV	04/20/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ELWHA LLC
<b>Street Address:</b>	3150 - 139TH AVE SE
<b>City:</b>	BELLEVUE
<b>State/Country:</b>	WASHINGTON
<b>Postal Code:</b>	98005
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15345251
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	46076-306
<b>NAME OF SUBMITTER:</b>	KORY D. CHRISTENSEN
<b>SIGNATURE:</b>	/Kory D. Christensen/
<b>DATE SIGNED:</b>	02/20/2018

**Total Attachments: 5**

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ASSIGNMENT

We, Eric J. Black, Brian Mark Deutsch, Alexander Remley Katko, Melroy Machado, Jay Howard McCandless, and Yaroslav A. Urzhumov declare that we have invented the invention described in a United States Utility Application Serial No. 15/345,251, titled MASSIVELY MULTI-USER MIMO USING SPACE TIME HOLOGRAPHY, filed on November 7, 2016, in the United States Patent and Trademark Office, identified as Stoel Rives LLP Docket No. 46076/306.

The Assignee, Elwha LLC, a limited liability company of the State of Delaware, having a place of business at 3150 - 139th Ave SE, Bellevue, WA 98005, desires to secure the entire right, title and interest therein.

For good and valuable consideration, the receipt and sufficiency of which we hereby acknowledge, WE HEREBY ASSIGN TO THE ASSIGNEE:

The entire right, title and interest in said inventions in the above-identified United States patent application and in all divisions, continuations and continuations-in-part of said application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and Foreign countries.

The right to file foreign patent applications on said invention in its own name, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all patents on said invention to the Assignee as the

owner of the entire interest, for the sole use and benefit of the said Assignee, its successors, assigns and legal representatives.


We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of us to make this Assignment fully effective, including, by way of example but not of limitation, the following:

Prompt execution of all original, divisional, substitute, reissue, and other United States and foreign patent applications on said invention, and all lawful documents requested by the Assignee to further the prosecution of any of such patent applications.

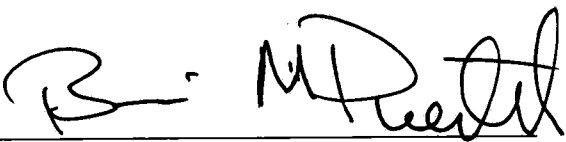
Cooperation to the best of our ability in the execution of all lawful documents, the production of evidence, nullification, reissue, extension, or infringement proceedings involving said invention.

This assignment and agreement shall be binding upon our heirs and legal representatives.

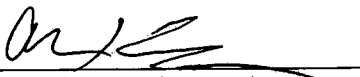
Dated: 31-Jan-2018

  
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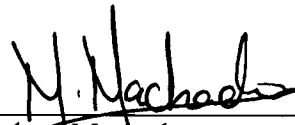
Dated: 1-31-18

  
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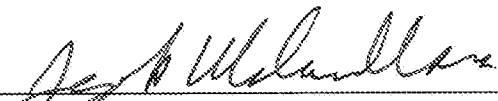
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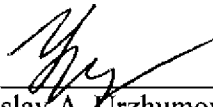
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