

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3963634

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	12/19/2013
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	CLUSTER LLC	
<b>Street Address:</b>	615 SOUTH DUPONT HIGHWAY	
<b>City:</b>	DOVER	
<b>State/Country:</b>	DELAWARE	
<b>Postal Code:</b>	19901	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	15211157
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(972)367-2002	
<i>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.</i>		
<b>Phone:</b>	972-367-2001	
<b>Email:</b>	panoptis@cclaw.com	
<b>Correspondent Name:</b>	CARSTENS & CAHOON, LLP	
<b>Address Line 1:</b>	P.O. BOX 802334	
<b>Address Line 4:</b>	DALLAS, TEXAS 75380	
<b>ATTORNEY DOCKET NUMBER:</b>	ME51-US5 (21295)	
<b>NAME OF SUBMITTER:</b>	JAMES H. ORTEGA	
<b>SIGNATURE:</b>	/James H. Ortega/	
<b>DATE SIGNED:</b>	07/15/2016	
<b>Total Attachments: 6</b>		
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## PATENT ASSIGNMENT AGREEMENT

This PATENT ASSIGNMENT AGREEMENT ("Agreement") dated as of December 19, 2013 (the "Effective Date") by and between:

- (i) Telefonaktiebolaget L M Ericsson (publ), a company duly established under the laws of Sweden, with registration number 556016-0680, having its registered office at SE-164 83 Stockholm, Sweden ("Assignor"); and
- (ii) Cluster LLC, a Delaware limited liability company, with its registered office presently located at c/o National Corporate Research, Ltd., 615 South DuPont, Highway, Dover, Kent County, Delaware 19901 ("Assignee").

WITNESSETH:

WHEREAS, Assignee is an affiliate of Assignor and Assignor now wishes to transfer its rights in the Assigned Patents (as defined below) to Assignee as further set forth below.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises and agreements contained in this Agreement, and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Assignment. Assignor hereby transfers, assigns and conveys to Assignee its right, title, and interest throughout the world (under any and all laws and in any and all jurisdictions) in and to all of the patents, patent applications and provisional patent applications set forth on Schedule II-A and Schedule II-B attached hereto (collectively, the "Assigned Patents"), in each case, subject to all existing encumbrances. Pursuant to the foregoing assignment, each of the Assigned Patents shall hereafter be for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors and assigns, as fully and entirely as the same would have been held and enjoyed by the applicable Assignor if this Agreement had not been made. The foregoing assignment includes, without limitation, the rights of Assignor, if any, to (A) register or apply in all countries and regions for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for the Assigned Patents; (B) prosecute, maintain and defend the Assigned Patents before any public or private agency, office or registrar including by filing reissues, reexaminations, divisions, continuations, continuations-in-part, substitutes, extensions and all other applications and post issue proceedings included in the Assigned Patents; (C) claim priority based on the filing dates of any of the Assigned Patents under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, and all other treaties of like purposes; and (D) sue and recover damages or other compensation for past, present or future infringements thereof, the right to sue and obtain equitable relief, including injunctive relief, in respect of such infringements, and the right to fully and entirely stand in the place of the applicable Assignor in all matters related to the Assigned Patents.

2. Authorization. Assignor also hereby expressly authorizes the respective patent office or governmental agency in each and every jurisdiction worldwide (including the Commissioner of Patents and Trademarks in the United States Patent and Trademark Office, and the corresponding entities or agencies in any applicable foreign countries or multinational authorities) (the "Applicable IP Offices") to: (A) issue any and all patents or certificates of invention or equivalent which may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee to the Assignor's interest therein; and (B) record Assignee as the assignee of the Assigned Patents and to deliver to Assignee, and to Assignee's attorneys, agents, successors or assigns, all official documents and communications as may be warranted by this Agreement.

3. Further Assurances. Each party hereby agrees to execute and deliver to the other party all necessary documents and take all necessary actions reasonably requested by such party from time to time to confirm or effect the assignments set forth in this Agreement, or otherwise to carry out the purposes of this Agreement, including, without limitation, by providing executed originals of short-form assignment agreements entered into by Assignor and Assignee on the Effective Date for filing or otherwise evidencing the assignments set forth in this Agreement with the Applicable IP Offices; provided, however, that nothing contained herein shall obligate Assignor to incur any cost or pay any expense in connection therewith.

4. Governing Law. This Agreement shall be governed by the laws of Delaware.

5. General Provisions. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or electronic mail shall be as effective as delivery of a manually executed counterpart of this Agreement. This Agreement may not be supplemented, altered, or modified in any manner except by a writing signed by all parties hereto. The failure of any party to enforce any terms or provisions of this Agreement shall not waive any of its rights under such terms or provisions.

[Remainder of this page intentionally left blank.]

IN WITNESS WHEREOF, Assignor and Assignee have caused this instrument to be executed by their respective duly authorized representative as of the Effective Date.

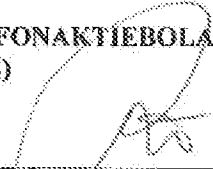
Assignor:

TELEFONAKTIEBOLAGET L M ERICSSON  
(PUBL)

By

Name:

Title:

  
Roland Hagman

VP

By

Name:

Title:

  
Gerd Holm

VP

Assignee:

**CLUSTER LLC**

By: Aktiebolaget Aulis, its Manager

By: M. W. Magnusson

Name:

Title:

*W. Magnusson, Sr. VP*

By: [Signature]

Name:

Title:

*Richard O. O'Connell  
Chief Compliance Officer*

**Schedule A**

**LIST OF ASSIGNED PATENTS**

Ericsson Specified Patent	Declared Standard Essential Patent	Ref No.	Country	Status	Title	App No.	App Date	Patent No.	Patent Date
	X	P21295 FAM	US	GRANTED	Signaling Support for Antenna Selection Using Subset Lists and Subset Masks	11/538535	2006-10-04	8068872	2011-11-29
	X	P22906 FAM	CN	GRANTED	LENGTH INDICATOR OPTIMIZATION	20078003 9983.8	2007-06-20	ZL2007800399 83.8	2013-05-01
	X	P22906 FAM	DE	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	EP	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	ES	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	FI	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	GB	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	HU	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	NL	GRANTED	LENGTH INDICATOR OPTIMIZATION	07764735. 2	2007-06-20	2077009	2010-05-05
	X	P22906 FAM	US	FILED	LENGTH INDICATOR OPTIMIZATION	12/447396	2007-06-20		
	X	P24242 FAM	EP	FILED	DATA BLOCK SIZE MANAGEMENT IN A COMMUNICATION SYSTEM UTILIZING HYBRID AUTOMATIC REPEAT REQUESTS WITH SOFT COMBINING	08827148. 1	2008-05-09		
	X	P24242 FAM	US	GRANTED	DATA BLOCK SIZE MANAGEMENT IN A COMMUNICATION SYSTEM UTILIZING HYBRID AUTOMATIC REPEAT REQUESTS WITH SOFT COMBINING	12/663459	2008-05-09	8341484	2012-12-25