

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CHAN-SOO HWANG	11/09/2018
JEONGHUN NOH	11/09/2018
PARIMAL PARAG	11/14/2018
RECEIVING PARTY DATA	
Name:	ASSIA SPE, LLC
Street Address:	1209 ORANGE ST.
City:	WILMINGTON
State/Country:	DELAWARE
Postal Code:	19801
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16192442
CORRESPONDENCE DATA	
Fax Number:	(650)856-0542
<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>	
Phone:	6508567539
Email:	nmiller@northweber.com
Correspondent Name:	NORTH WEBER & BAUGH LLP
Address Line 1:	3260 HILLVIEW AVE., 1ST FL.
Address Line 4:	PALO ALTO, CALIFORNIA 94304
ATTORNEY DOCKET NUMBER:	20145-078USC
NAME OF SUBMITTER:	NITA MILLER
SIGNATURE:	/Nita Miller/
DATE SIGNED:	11/15/2018
Total Attachments: 5	
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ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the individual(s) named below (hereinafter "INVENTOR" whether singular or plural) has sold, assigned, transferred, and set over, and hereby sells, assigns, transfers and sets over, to ASSIA SPE, LLC, a corporation of the State of Delaware, having a place of business at 1209 Orange St., Corporation Trust Center, Wilmington, DE 19801 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The full and exclusive worldwide right, title, and interest in and to all inventions and improvements ("SUBJECT MATTER") that are disclosed in the U.S. patent application, entitled "METHOD AND APPARATUS FOR CONTINUOUS ACCESS NETWORK MONITORING AND PACKET LOSS ESTIMATION" ("APPLICATION"),

which is a provisional application

bearing Application No. _____, and filed on _____;

to be filed herewith; or

which is a non-provisional application

bearing Application No. 16/192,442, and filed on November 15, 2018;

to be filed herewith;

having an oath or declaration executed on the same date as this Assignment;

having an oath or declaration executed on a different date than this Assignment.

2. The entire worldwide right, title, and interest in and to the APPLICATION and all applications claiming priority to the APPLICATION or having related SUBJECT MATTER to the APPLICATION, including all such utility, divisional, continuation, substitute, renewal, reissue, international, or other related applications and all rights of priority in the APPLICATION, together with all rights to recover damages for infringement.

INVENTOR hereby authorizes and requests the Commissioner of the U.S. Patent and Trademark Office, and Patent Office Officials in all foreign countries, to issue to the ASSIGNEE any and all patents which may be granted from the APPLICATION.

Title: SYSTEMS, METHODS, AND APPARATUSES FOR IMPLEMENTING DSL LINE FAULT DETERMINATION AND LOCALIZATION VIA SELT, DELT, AND MELT DIAGNOSTICS
Inventor(s): Hwang *et al.*
Appl. No.: 16/192,442
Filing Date: November 15, 2018
Docket No.: 20145-078USC

INVENTOR will, without further consideration, communicate to the ASSIGNEE any facts known to the INVENTOR regarding the SUBJECT MATTER, testify in any legal proceeding, sign all lawful papers, execute all oaths, assignments, powers of attorney, applications and any other paper desired by ASSIGNEE to obtain, perfect, or secure to ASSIGNEE any and all of the rights, titles and interests herein conveyed, and to maintain, enforce, and defend these rights, titles and interests in the United States and all foreign countries. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE herein.

INVENTOR represents that the INVENTOR, at the time of the execution of this Assignment, is the sole and lawful owner of the entire rights, titles and interests in and to the SUBJECT MATTER as set forth in the APPLICATION, and that the SUBJECT MATTER is unencumbered, and that the INVENTOR has good and full right and lawful authority to sell and convey the SUBJECT MATTER in the manner herein set forth.

INVENTOR covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license or other agreement affecting the rights, titles, and interests herein conveyed.


INVENTOR agrees to, and hereby acknowledges, that the ASSIGNEE may apply for and receive patents related to the APPLICATION or SUBJECT MATTER.

INVENTOR grants the attorney of record for the APPLICATION the power to insert on this Assignment any further identification, including the application number and filing date, which may be necessary or desirable to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment. Inventor/assignor signature blocks are located on the following pages.

Title: SYSTEMS, METHODS, AND APPARATUSES FOR IMPLEMENTING DSL LINE FAULT DETERMINATION AND LOCALIZATION VIA SELT, DELT, AND MELT DIAGNOSTICS
Inventor(s): Hwang *et al.*
Appl. No.:
Filing Date:
Docket No.: 20145-078USC

INVENTOR Name: Chan-Soo Hwang
INVENTOR Address: 1075 Merrimac Dr.
Sunnyvale, CA 94087

INVENTOR Signature: 
Date of Signature: IT/9/2018 4:15:49 PM PST

Witnessed By: _____
[Print Name]

Witness Signature: _____

Date of Signature: _____

State of _____)
County of _____)

On _____, before me _____ personally appeared,
[Date] [Name and Title of Officer]
_____, who proved to me on the basis of satisfactory evidence to be the
[INVENTOR]

person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

Title: SYSTEMS, METHODS, AND APPARATUSES FOR IMPLEMENTING DSL LINE FAULT DETERMINATION AND LOCALIZATION VIA SELT, DELT, AND MELT DIAGNOSTICS
Inventor(s): Hwang *et al.*
Appl. No.:
Filing Date:
Docket No.: 20145-078USC

INVENTOR Name: Jeonghun Noh

INVENTOR Address: 9366 Redwood Dr., Apt. H
La Jolla, CA 92037

INVENTOR Signature 

Date of Signature: 11/9/2018 4:27:31 PM PST

Witnessed By: _____
[Print Name]

Witness Signature: _____

Date of Signature: _____

State of _____)
County of _____)

On _____, before me _____ personally appeared,
[Date] [Name and Title of Officer]

_____, who proved to me on the basis of satisfactory evidence to be the
[INVENTOR]
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____
that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

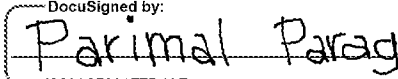
Signature _____

(Seal)

Title: SYSTEMS, METHODS, AND APPARATUSES FOR IMPLEMENTING DSL LINE FAULT DETERMINATION AND LOCALIZATION VIA SELT, DELT, AND MELT DIAGNOSTICS
Inventor(s): Hwang *et al.*
Appl. No.:
Filing Date:
Docket No.: 20145-078USC

INVENTOR Name: Parimal Parag

INVENTOR Address: 3635 S. Orcas St.
Seattle, WA 98118-2259

INVENTOR Signature: 
Date of Signature: 11/15/2018 10:50:04 AM PST

Witnessed By: _____
[Print Name]

Witness Signature: _____

Date of Signature: _____

State of _____)
County of _____)

On _____, before me _____ personally appeared,
[Date] [Name and Title of Officer]

_____, who proved to me on the basis of satisfactory evidence to be the
[INVENTOR]
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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Signature _____

(Seal)