506191141 08/06/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6237880

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| THOMAS NATHAN CARTER | 07/09/2020 |
| JEFFREY LARKIN COOK | 07/08/2020 |
| THOMAS LAWRENCE BOWLBY | 07/13/2020 |

RECEIVING PARTY DATA

| Name: | CHARTER COMMUNICATIONS OPERATING, LLC |
|-----------------|---------------------------------------|
| Street Address: | 12405 POWERSCOURT DRIVE |
| City: | ST. LOUIS |
| State/Country: | MISSOURI |
| Postal Code: | 63131 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16986450 |

CORRESPONDENCE DATA

Fax Number: (248)649-3338

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: (248) 649-3333

Email: docketing@youngbasile.com

Correspondent Name: YOUNG BASILE HANLON & MACFARLANE, P.C.

Address Line 1: 3001 WEST BIG BEAVER RD.

Address Line 2: SUITE 624

Address Line 4: TROY, MICHIGAN 48084

| ATTORNEY DOCKET NUMBER: | CHTR-141-A |
|-------------------------|----------------|
| NAME OF SUBMITTER: | ABHIK A. HUQ |
| SIGNATURE: | /Abhik A. Huq/ |
| DATE SIGNED: | 08/06/2020 |

Total Attachments: 4

source=CHTR141A_ExecutedAssign#page1.tif source=CHTR141A_ExecutedAssign#page2.tif source=CHTR141A_ExecutedAssign#page3.tif

PATENT 506191141 REEL: 053419 FRAME: 0663

 $source = CHTR141A_Executed Assign \# page 4.t if$

PATENT REEL: 053419 FRAME: 0664

ASSIGNMENT AND AGREEMENT

WHEREAS, Thomas Nathan Carter, having an address of 13850 Horsetail Terrace, Colorado Springs, Colorado 80921; Jeffrey Larkin Cook, having an address of 21548 E. Ottawa Circle, Aurora, Colorado 80016; and Thomas Lawrence Bowlby, having an address of 4759 South Xenophon Street, Morrison, Colorado 80465 (hereinafter referred to as Assignor); and Charter Communications Operating, LLC, a Delaware limited liability company, having a principal place of business at 12405 Powerscourt Drive, St. Louis, Missouri 63131 (hereinafter referred to as Assignee) have developed the subject matter disclosed in the United States patent application entitled METHOD AND SYSTEM FOR MAP-T BORDER RELAY DATA PLANE VERIFICATION.

WHEREAS, Assignee is desirous of acquiring the entire right, title and interest in and to any invention arising from said disclosed subject matter and in and to any Letters Patent that may be granted therefore in the United States and in any and all foreign countries.

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable considerations, Assignor hereby sells, assigns, and transfers unto said Assignee the full and exclusive right, title and interest to any inventions arising from the disclosed subject matter in the United States and in all foreign countries and the entire right, title, and interest in and to any and all Letters Patent which may be granted therefore in the United States and in any and all foreign countries and in and to any and all divisions, reissues, continuations, continuations-in-part, and all subsequently filed applications claiming priority thereon, as well as extensions thereof including the full right to claim for any such application the benefits of the International Convention.

ASSIGNOR hereby authorizes and requests the Patent Office officials in the United States and in any and all foreign countries to issue any and all of said Letters Patent, when granted, to said Assignee as the owner of the entire right, title and interest in and to the same, for the sole use of said Assignee, its successors, assigns, and legal representatives or nominees.

FURTHER, Assignor agrees to communicate to said Assignee or its representatives any facts known to Assignor respecting said subject matter, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitution, renewal, and reissue applications, as well as all subsequently filed applications claiming priority thereon, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said Assignee, make all rightful oaths and generally do everything possible to aid said Assignee, its successors and assigns, to obtain and enforce proper protection for any invention arising from said disclosed subject matter in the United States and in any and all foreign countries.

IN TESTIMONY WHEREOF, I have hereunto set my hand on the date appearing next to my signature.

{YB:51074325.DOCX } ~ 1 ~

PATENT REEL: 053419 FRAME: 0665

| Du Han | 7108/20 |
|------------------------------------|-----------------|
| Thomas Nathan Carter | Date |
| Witness 1: | |
| H. Jander Signed Name | 7/09/20 Date |
| SANDEEP REDDY MEREDDY Printed Name | |
| Witness 2: | |
| A. Savelup Signed/Name | |
| SANDEEP ALVALA Printed Name | |

| Jah Lan Co | <u>07/08/70</u> |
|---------------------|-----------------|
| Jeffrey Larkin Cook | Date |
| W | |
| Witness 1: | |
| | |
| Signed Name | Date |
| Printed Name | |
| Timica ivanic | |
| Witness 2: | |
| | |
| Signed Name | Date |
| | |
| Printed Name | |

{YB:01074325.DOCX.}

-3-

| | 7/13/2020 |
|-----------------------------|-----------|
| Thomas Lawrence Bowlby | Date |
| Witness 1: | |
| dried home | 7/13/2020 |
| Signed Name | Date |
| AMEESHA PANDYA Printed Name | |
| Witness 2: | |
| En Bolk | 7/13/2020 |
| Signed Name | Date |
| Exika Bollwes Printed Name | |

- A.s.

(ABM6M33 00CX.)

RECORDED: 08/06/2020

PATENT REEL: 053419 FRAME: 0668