

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5752552

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	SRILAL M. WEERASINGHE	09/23/2019
	VIPUL PATEL	09/23/2019
	BASIL BADAWIYEH	10/01/2019
	ROBBIE N. MILLS III	09/23/2019
	MICHAEL TERADA	09/23/2019
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:	16582837	
CORRESPONDENCE DATA		
Fax Number:		
<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>		
Email:	docket@gazpat.com	
Correspondent Name:	GAZDZINSKI & ASSOCIATES PC	
Address Line 1:	16644 WEST BERNARDO DRIVE, SUITE 201	
Address Line 4:	SAN DIEGO, CALIFORNIA 92127	
ATTORNEY DOCKET NUMBER:	TWAR.297A/CHTR-2019-92	
NAME OF SUBMITTER:	DEREK L. MIDKIFF	
SIGNATURE:	/Derek L. Midkiff/	
DATE SIGNED:	10/03/2019	
Total Attachments: 4		
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COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

Title of Invention: **METHODS AND APPARATUS FOR CHARACTERIZATION OF DIGITAL CONTENT**

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

U.S. Application Serial No.: To be assigned; or
PCT International Application No.: _____
Filed on: herewith.

The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understand the contents of the above-identified application, including the claims. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.

WHEREAS, **CHARTER COMMUNICATIONS OPERATING, LLC**, (hereinafter "ASSIGNEE"), a Delaware limited liability company, having a principal place of business at 12405 Powerscourt Drive, St. Louis, MO 63131, United States of America, its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, re-examinations, continuations, conversions and extensions thereof, and provisional applications to which priority is claimed therefrom, for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion, re-exam, provisional, or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion, re-exam, provisional, or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

GAZDZINSKI & ASSOCIATES, PC

16644 West Bernardo Drive, Suite 201, San Diego, CA 92127

Telephone: (858) 675-1670 - Facsimile: (858) 675-1674 - Email: docket@gazpat.com

PATENT

REEL: 050616 FRAME: 0339

COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

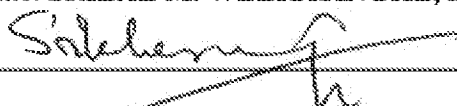
The undersigned hereby grants the law firm of GAZDZINSKI & ASSOCIATES, PC, Customer No. 27299, the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

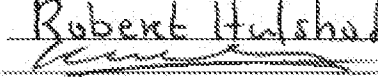
Inventor's Name: **SRILAL M. WEERASINGHE, a citizen of the United States**

Signature:  Date: 9/23/19

Witness

Printed Name SANTOSH PEDIREDLA
Signature P. Santosh Kumar
Date 9/23/2019

Witness

Printed Name Robert Hulshep
Signature 
Date 9/22/19

An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.

☒ Additional inventors are being named on the one (1) supplemental sheet(s) attached hereto.


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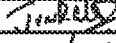
16644 West Bernardo Drive, Suite 201, San Diego, CA 92127

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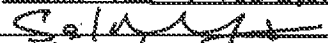
PATENT

REEL: 050616 FRAME: 0340

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT**LEGAL NAME OF INVENTOR:**Inventor's Name: **VIPUL PATEL**, a citizen of United StatesSignature: Date: 9/28/19**Witness**

Printed Name ROSA AN JUSURU
 Signature 
 Date 09/23/2019

Witness

Printed Name SILKA M. WEEERASINHE
 Signature 
 Date 9/28/19

LEGAL NAME OF JOINT INVENTOR, IF ANY:Inventor's Name: **BASIL BADAWIYEH**, a citizen of the United States

Signature: _____

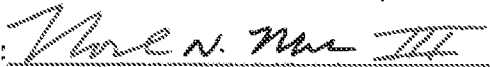
Date: _____


Witness

Printed Name _____
 Signature _____
 Date _____


Witness

Printed Name _____
 Signature _____
 Date _____

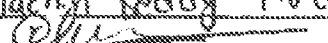
Inventor's Name: **ROBBIE N. MILLS III**, a citizen of the United StatesSignature: Date: 9/23/19**Witness**

Printed Name Kenneth Shuffelt
 Signature 
 Date 9/23/2019


Witness

Printed Name Kayla Bryant
 Signature 
 Date 9-23-2019

Inventor's Name: **MICHAEL TERADA**, a citizen of the United StatesSignature: Date: 9/23/19**Witness**

Printed Name Sachin Reddy Kota
 Signature 
 Date 9/23/19

Witness

Printed Name David Agronoff
 Signature 
 Date 9/23/19

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Telephone: (858) 673-1670 - Facsimile: (858) 673-1674 - Email: docket@gazpat.com**PATENT****REEL: 050616 FRAME: 0341**

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

LEGAL NAME OF INVENTOR:

Inventor's Name: **VIPUL PATEL**, a citizen of _____

Signature: _____ Date: _____

Witness

Printed Name _____

Signature _____

Date _____

Witness

Printed Name _____

Signature _____

Date _____

LEGAL NAME OF JOINT INVENTOR, IF ANY:

Inventor's Name: **BASIL BADAWEYEH**, a citizen of the United StatesSignature: *Basil Badaweyeh* Date: 10/1/2019

Witness

Printed Name Gighe ZimelmanSignature *Gighe Zimelman*Date 10/1/19

Witness

Printed Name Jay B. BoringSignature *Jay B. Boring*Date 10/1/19Inventor's Name: **ROBBIE N. MILLS III**, a citizen of the United States

Signature: _____ Date: _____

Witness

Printed Name _____

Signature _____

Date _____

Witness

Printed Name _____

Signature _____

Date _____

Inventor's Name: **MICHAEL TERADA**, a citizen of the United States

Signature: _____ Date: _____

Witness

Printed Name _____

Signature _____

Date _____

Witness

Printed Name _____

Signature _____

Date _____

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