

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DARRELL SMITH	05/12/2017
FRANCIS FERGUSON	05/12/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LEVEL 3 COMMUNICATIONS, LLC
<b>Street Address:</b>	1025 ELDORADO BOULEVARD
<b>City:</b>	BROOMFIELD
<b>State/Country:</b>	COLORADO
<b>Postal Code:</b>	80021
<b>PROPERTY NUMBERS Total: 3</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	62340955
<b>Application Number:</b>	15595450
<b>PCT Number:</b>	US2017032699
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
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<b>ATTORNEY DOCKET NUMBER:</b>	0582-US-U1
<b>NAME OF SUBMITTER:</b>	JANAE ALLABASTRO
<b>SIGNATURE:</b>	/Janae Allabastro for Gregory P. Durbin/
<b>DATE SIGNED:</b>	06/07/2017
<b>Total Attachments: 3</b>	
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## ASSIGNMENT

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### PARTIES TO THE ASSIGNMENT:

#### Assignor/Inventor:

Name of Assignor: **Darrell Smith**  
City and State of Residence: **Denver, CO**

Name of Assignor: **Francis Ferguson**  
City and State of Residence: **Aurora, CO**

#### Assignee:

**Level 3 Communications, LLC**  
**1025 Eldorado Boulevard**  
**Broomfield, Colorado 80021**

### PATENT APPLICATIONS SUBJECT TO THE ASSIGNMENT (the "Applications"):

Patent Application No.: **62/340,955**  
Filing Date: **May 24, 2016**  
Title: **ROUTE SELECTION SYSTEM FOR A COMMUNICATION NETWORK**  
Attorney Docket No.: **0582-US-P1**

Patent Application No.: **15/595,450**  
Filing Date: **May 15, 2017**  
Title: **ROUTE SELECTION SYSTEM FOR A COMMUNICATION NETWORK AND METHOD OF OPERATING THE SAME**  
Attorney Docket No.: **0582-US-U1**

Patent Application No.: **PCT/US2017/032699**  
Filing Date: **May 15, 2017**  
Title: **ROUTE SELECTION SYSTEM FOR A COMMUNICATION NETWORK AND METHOD OF OPERATING THE SAME**  
Attorney Docket No.: **0582-WO-01**

WHEREAS, the Assignor identified above has invented certain new and useful inventions for which the patent applications for Letters Patent identified above has been prepared for filing with the United States Patent and Trademark Office.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, Assignor has agreed to assign and transfer and does hereby assign and

transfer unto the Assignee identified above, its successors and assigns, the entire right, title, and interest in and to said invention and the Application, including any provisional or non-provisional application to which said Application claims priority, including but not limited to U.S. patent application no. 62/340,955, and in and to any United States of America and foreign applications that claim priority to the Application, any divisional or continuation (in whole or in part) of said Application, and in and to any and all improvements in said invention made by Assignor (provided any such improvement is made during, or within one year after the termination, of the employment by said Company of Assignor), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in the United States of America and all foreign countries in its own name and any priority rights for such United States of America and foreign applications to which such applications or the Assignor are entitled under international conventions, treaties, or otherwise which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon said invention or improvements thereon, and any and all rights to collect past damages for infringement of any and all Letters Patent of the United States and countries and regions foreign thereto which may be published, to be held and enjoyed as fully and exclusively as they would have been by me had this assignment and transfer not been made;

Assignor further agrees for Assignor and for Assignor's heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as Assignor lawfully may, that may be deemed necessary by said Assignee, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid to obtain to maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

Assignor hereby authorizes Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the title, application number and filing date of the Application once known;

Assignor hereby acknowledges that Assignee's internal and external counsel have represented only Assignee and will continue to represent only Assignee with respect to this invention;

Assignor hereby acknowledges an obligation of assignment and transfer of this invention and Application to Assignee at the time the invention was made; and


Assignor hereby authorizes and requests the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of said applications, to said Assignee, as the assignee of the entire right, title, and interest therein.

Assignor and Assignee hereby agree that this assignment is governed by the laws of the state of Colorado of the United States of America and subject to the non-exclusive jurisdiction of the courts of the state of Colorado of the United States of America.

IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon the date indicated below.

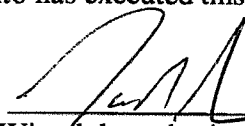
By:   
Darrell Smith

Dated: 5/12/2017

By:   
Francis Ferguson

Dated: 5/12/17

IN WITNESS WHEREOF, the Assignee hereunto has executed this Assignment upon the date indicated below.

By:   
David Wier duly authorized for and on behalf of  
Level 3 Communications, LLC

Dated: 6/1/2017