504671317 12/05/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4718039

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOSEPH C. LAWRENCE	02/19/2015
KEVIN C. JOHNS	02/17/2015
WILLIAM R. POWER	02/17/2015

RECEIVING PARTY DATA

Name:	LEVEL 3 COMMUNICATIONS, LLC	
Street Address:	1025 ELDORADO BLVD.	
City:	BROOMFIELD	
State/Country:	COLORADO	
Postal Code:	80021	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15831182

CORRESPONDENCE DATA

Fax Number: (720)888-5619

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.

Email: kathleen.mcinnish@level3.com Correspondent Name: LEVEL 3 COMMUNICATIONS, LLC

Address Line 1: 1025 ELDORADO BLVD.

Address Line 4: **BROOMFIELD, COLORADO 80021**

ATTORNEY DOCKET NUMBER:	0477-US-C1
NAME OF SUBMITTER:	JONATHAN C. SIEKMANN
SIGNATURE:	/Jonathan C. Siekmann/
DATE SIGNED:	12/05/2017

Total Attachments: 5

504671317

source=477USU1 SignedAssignment-c-c#page1.tif source=477USU1_SignedAssignment-c-c#page2.tif source=477USU1_SignedAssignment-c-c#page3.tif source=477USU1_SignedAssignment-c-c#page4.tif source=477USU1 SignedAssignment-c-c#page5.tif

ASSIGNMENT

PARTIES TO THE ASSIGNMENT:

Assignor/Inventor:

Name of Assignor: Joseph C. Lawrence

City and State of Residence: Boulder, Colorado

Name of Assignor: Kevin C. Johns

City and State of Residence: Erie, Colorado

Name of Assignor: William R. Power

City and State of Residence: Boulder, Colorado

Assignee:

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

PATENT APPLICATION SUBJECT TO THE ASSIGNMENT (the "Application"):

Patent Application No.: 14/626,425

Filing Date: February 19, 2015

Title: CONTENT DELIVERY NETWORK ARCHITECTURE WITH EDGE PROXY

Attorney Docket No. 0477-US-U1

WHEREAS, the Assignor identified above has invented certain new and useful inventions for which the patent application 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. 61/941,576, 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

49730639.1

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 upon said invention or improvements thereon, 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 Assig date indicated below.	nor hereunto has executed this Assignment upon the
	By: Joseph C. Lawrence
STATE OF DO DO DO SS. COUNTY OF BODO QUE	Dated: 2//1//5

Before me, a Notary Public in and for said County and State, personally appeared **Joseph** C. Lawrence, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

Given under my hand and seal of office this 10 day of 600 day. 2015.

JENNIFER LOMELI
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20054044452
MY COMMISSION EXPIRES 11/16/2017

Notatry Public

My Commission Expires: 11)) 6 | 7

	Ву: 74
	Kevin C. Johns
	Dated: 2/17/15
STATE OF COVOCADO) CITY OF BOX GULD) SS. COUNTY OF BOX GULD	
	aid County and State, personally appeared Kevin name is subscribed to the foregoing instrument, ame for the purposes and considerations therein
Given under my hand and seal of office	this 1 day of felicinery, 2015.
JENNIFER LOMEL! NOTARY PUBLIC STATE OF COLORADO	Notary Public One Conce
NOTARY ID 20054044452 MY COMMISSION EXPIRES 11/16/2017	My Commission Expires:
	Bv: ////
	William R. Power
	Dated: 2/17/2015
STATE OF CLYD (S. S. COUNTY OF SOME	
Before me, a Notary Public in and for sat William R. Power, known to me to be the personstrument, and acknowledged to me that he execonsiderations therein expressed.	id County and State, personally appeared on whose name is subscribed to the foregoing cuted the same for the purposes and
Given under my hand and seal of office t JENNIFER LOMELI NOTARY PUBLIC	his 17 day of February, 2015.
STATE OF ADLORADO NOTARY ID 20054044452 MY COMMISSION EXPIRES 11/18/2017	Notary Public My Commission Expires: 11/16/7

IN WITNESS WHEREOF, the / date indicated below.	Assignee hereunto has executed this Assignment upon the
	David Wienduly authorised for and on behalf of Level 3 Communications, LLC
STATE OF COLDINARY SS. COUNTY OF SIDON GUILD SS.	Dated: 417/2015
	d for said County and State, personally appeared David se name is subscribed to the foregoing instrument, and same for the purposes and considerations therein
Given under my hand and seal of	office this 17 day of Cara 2015.

JENNIFER LOMELI
NOTATY PUBLIC
STATE OF COLORADO
NOTARY ID 20084044882
MY COMMISSION EXPIRES 11/18/2017

Notary Public
My Commission Expires: 11)))

PATENT REEL: 044298 FRAME: 0671

RECORDED: 12/05/2017