Form **PTO-1595**

(Rev. 03-01)

05-14-2002

nmerce < Office

110US

Recordation Form Cover SI PATENTS ONLY

OMB No. 0651-0027 (exp. 5/31/2002) P 10 102087583 Tab settings ⇒ ⇒ ⇒ ▼ To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof 2. Name and address of receiving party(ies) 1. Name of conveying party(ies): Richard Cerami, Roxanna Storaasli Name: Qwest Communications International Inc (Patent Prosecution) Additional name(s) of conveying parties attached?

Yes
No. Internal Address: _____ 3. Nature of conveyance: Street Address: 1801 California Street, Suite 3800 Merger City: Denver State: Colorado ZIP: 80202 ☐ Security Agreement Change of Name Other: _____ Additional names and addresses attached? ☐ Yes ☒ No RECEIVED Execution Date: 10/01/01; 10/02/01 4. Application number(s) or patent number(s). FEB 1 9 2002 Patent Application No(s): 09/921,294 B. Patent No(s): Additional numbers attached?

Yes

No Name and address of party to whom correspondence 6. Total number of applications and patents involved 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41): -----\$40.00 Brian N. Young Name: TOWNSEND AND TOWNSEND AND CREW LLP Two Embarcadero Center, 8th Floor ☐ Enclosed San Francisco, California 94111-3834 Authorized to be charged to deposit account (415) 576-0200 8. Deposit account number: 20-1430 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document. January 10, 2002 Brian N. Young Date Name of Person Signing Signature Atty. Reg. No. 48,602

> Total number of pages including cover sheet, attachments and document 3 Mail documents to be recorded with required cover to: Commissioner of Patents and Trademarks, Box Assignments

Washington, D.C. 20231

PATENT REEL: 012689 FRAME: 0844

Attorney Docket No.: 020366-077410US

ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Richard S. Cerami of 1475 Lawrence Street, #400, Denver, CO 80202; Timothy Figueroa of 15231 East Hialeah Place, Aurora, CO 80015; Roxanna Storaasli of 1475 Lawrence Street, 4th Floor, Denver, CO 80202; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: PERFORMANCE MODELING IN A VDSL NETWORK

Date(s) of execution of Declaration:

Filing Date: August 1, 2001

Application No.: 09/921,294; and

WHEREAS, Qwest Communications International, Inc., a corporation of the state of Delaware, located at 1801 California Street, Suite 3800, Denver, CO, 80202-2658, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignors hereby authorize and request Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834, to insert herein above the application number and filing date of said application when known.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 10-01-01

Richard S. Cerami

Assignment Attorney Docket No.: 020366-077410US Page 2	
STATE OF Colorado) ss.	
COUNTY OF Denvice) ss.	
on <u>lo/o/o/</u> , before me, <u>lenn.fe</u> personally appeared <u>Richard S. Cerami</u> , personally known to me (or proved to evidence) to be the person whose name is subscribed to the within instrument, and ac executed the same in his/her authorized capacity, and that by his/her signature on the entity upon behalf of which the person acted, executed the instrument.	knowledged to me that he/she
WITNESS my hand and official seal.	
My Commission Expires: 7/01/03	Sucolis
Dated: Timothy Figueroa	
STATE OF	
) ss. COUNTY OF)	
On , before me,	· · · · · · · · · · · · · · · · · · ·
On, before me,	knowledged to me that he/she
NOTARY PUBLIC My Commission Expires:	

PATENT REEL: 012689 FRAME: 0846

Attorney Docket No.: 020366-077410US Page 3
Dated: 10/02/01 Roxanna Storaasli
STATE OF Colorado)
COUNTY OF Denuel) ss.
On ODO ODO ON Before me, ON FER ON SHE PRISON Personally appeared Roxanna Storaasli personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.
My Commission Expires: 7/01/03

SF 1273939 v1

RECORDED: 01/10/2002

PATENT REEL: 012689 FRAME: 0847