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PATENTS ONLY

Atty Ref/Docket No.: 2413.065US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Vaishnav Janardhan, Henning Schulzrinne

Additional name(s) of conveying party(ies) attached?

[ ] Yes [X] No

3. Nature of conveyance:

- Assignment
- Merger
- Security Agreement
- Change of Name
- Other

Execution Date: January 15, 2010, January 15, 2010

2. Name and address of receiving party(ies):

Name: The Trustees of Columbia University in the City of New York

Street Address: 535 West 116th Street  
412 Low Memorial Library

City: New York State: New York Zip: 10027  
Country: United States of America

Additional name(s) & address(es) attached? [ ] Yes [X] No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Serial No. 12/648,105, filed December 28, 2009

B. Patent No.(s)

Additional numbers attached? [ ] Yes [X] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Suneel Arora

Address:

Schwegman, Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402-0938

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00

Enclosed

Authorized to be charged to deposit account  
19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

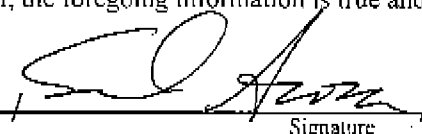
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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suneel Arora/Reg. No. 42,267

Name of Person Signing



Signature

Feb. 17, 2010

Date

Total number of pages including cover sheet: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks  
Mail Stop Assignment Recordation Services  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attorney Docket No. 2413.065US1  
Client Ref. No. M07-102/2413.065US1/JS/TM

**ASSIGNMENT**

NEW YORK -  
11375

69-10, 108<sup>th</sup> St, Apt 7d, Forrest  
Hills  
35 4112

WHEREAS, We, Vaishnav Janardhan, residing at 240 West 104th Street, Apt. #, 3E, New York, New York 10025, and Henning Schulzrinne, residing at 313 West View Avenue, Leonia, New Jersey 07605, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on December 28, 2009, which application was assigned U.S. patent application serial number 12/648,105, and is entitled SET-TOP BOX PEER-ASSISTED VIDEO-ON-DEMAND:

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do hereby:

SELL, ASSIGN AND TRANSFER to The Trustees of Columbia University in the City of New York (the "Assignee"), a corporation of the State of New York, having a place of business at 535 West 116th Street, 412 Low Memorial Library, New York, New York 10027, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for U.S. Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 68836 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

*Additional Application Information*

*U.S. Provisional Application Serial No. 60/946,905, filed on June 28, 2007.*

*International Application Serial No. PCT/US2008/008077, filed on June 27, 2008.*

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be

## ASSIGNMENT

Client Ref. No. M07-102/2413.06SUS1/S/TM  
Assignors: Vaishnav Janardhana et al.  
TIT: SET-TOP BOX PEER-ASSISTED VIDEO-ON-DEMAND  
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Serial Number: 12/648,105

made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

ASSIGNMENT

Client Ref. No. M07-102/2413.065US1//S/TM

Assignors: Vaishnav Janardhan et al.

Title: SET-TOP BOX PEER-ASSISTED VIDEO-ON-DEMAND

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Docket No: 2413.065US1

Serial Number: 12648,105

IN TESTIMONY WHEREOF, I have hereunto set my hand this 15 day of

JANUARY, 2010.



Vaishnav Janardhan

STATE OF New York )

)ss

COUNTY OF USA )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ before me personally appeared Vaishnav Janardhan, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

\_\_\_\_\_  
Notary Public

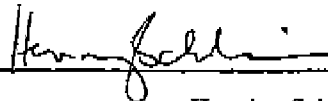
ASSIGNMENT  
Client Ref. No. M07-10Z/2413.065US1/JS/TM  
Assignors: Vaishnav Junardhan et al.  
Title: SET-TOP BOX PEER-ASSISTED VIDEO-ON-DEMAND  
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Docket No: 2413.065US1

Serial Number: 12/648,105

IN TESTIMONY WHEREOF, I have hereunto set my hand this 15 day of

January, 2010.



Henning Schulzrinne

STATE OF New Jersey)

)ss

COUNTY OF Bergen)

On this 15 day of January, 2010 before me personally appeared Henning Schulzrinne, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]



~~Notary Public~~