07-15-2003

To the Honorable Commissioner of Patents and Trade	102496111  marks: Please record the attached original documents or copy thereof.
1. Name of conveying party(ies)  Dan Li  Arun Desai  Zheng Yang  Kenneth Mueller II  Stephen Morris  Dmitry Stavisky  Executed: June 20, 2003  Executed: June 20, 2003  Executed: June 20, 2003  Executed: June 27, 2003  Executed: June 27, 2003  Executed: June 27, 2003  Executed: June 20, 2003  Additional name(s) of conveying party(ies) attached? [] Yes [X] No	2. Name and address of receiving party(ies)  Name: Cisco Technology, Inc.  Internal Address:
3. Nature of conveyance:	Street Address: 170 West Tasman Drive
[X] Assignment [] Merger	
[ ] Security Agreement [ ] Change of Name	City: San Jose State: CA ZIP: 95134- 1706
Execution Date: June 20, 2003, June 20, 2003, June 20, 2003, June 27, 2003, June 19, 2003, June 20, 2003	Additional name(s) & address(es) attached? [ ] Yes [ X ] No
<ol> <li>Application number(s) or patent number(s):</li> <li>If this document is being filed together with a new application</li> </ol>	June 20, 2003, June 27, 200
A. Patent Application No.(s)  /2003 HMRRZI1 00000067 10610173	June 20, 2003, June 27, 200
A. Patent Application No.(s) /2003 HMARZI1 00000067 10610173	June 20, 2003, June 27, 200  June 19, 2003, June 20, 20
A. Patent Application No.(s)  /2003 HMARZI1 00000067 10610173  40.00 CP	June 20, 2003, June 27, 200  June 19, 2003, June 20, 20  B. Patent No.(s)
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A. Patent Application No.(s)  /2003 HMARZI1 00000067 10610173	June 20, 2003, June 27, 200  June 19, 2003, June 20, 20  B. Patent No.(s)  ambers attached? [] Yes [x] No  6. Total number of applications and patents involved: [1]
A. Patent Application No.(s)  /2003 HMARZI1 00000067 10610173  8021  Additional nu  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: David E. Huang, Esq.  Internal Address:	June 20, 2003, June 27, 200  June 19, 2003, June 20, 20  B. Patent No.(s)  6. Total number of applications and patents involved: [1]  7. Total Fee (37 C.F.R. 3.41)
A. Patent Application No.(s)  /2003 HMRZI1 00000067 10610173  88021 Additional nu  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: David E. Huang, Esq.  Internal Address:  CHAPIN & HUANG, L.L.C.	June 20, 2003, June 27, 200  June 19, 2003, June 20, 20  B. Patent No.(s)  6. Total number of applications and patents involved: [1]  7. Total Fee (37 C.F.R. 3.41)
A. Patent Application No.(s)  /2003 HMRZI1 00000067 10610173  88021 Additional nu  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: David E. Huang, Esq.  Internal Address:  CHAPIN & HUANG, L.L.C.  Street Address: Westborough Office Park	June 20, 2003, June 27, 200 June 19, 2003, June 20, 20  B. Patent No.(s)  6. Total number of applications and patents involved: [1]  7. Total Fee (37 C.F.R. 3.41)

document.

Christine M. Kuta, Esq.

Name of Person Signing

Christinis M. Kuta

June 30, 2003

Date

Total number of pages including cover sheet, attachments, and document:



**Joint** 

## **ASSIGNMENT**

WHEREAS, we, Dan Li, Arun Desai, Zheng Yang, Kenneth Mueller II, Stephen Morris, and Dmitry Stavisky, have invented a certain improvement in METHOD AND APPARATUS FOR MULTICAST CLOUD WITH INTEGRATED MULTICAST AND UNICAST CHANNEL ROUTING IN A CONTENT DISTRIBUTION NETWORK described in an application for Letters Patent of the United States, the specification of which:

[X]	is being executed on even date hunited States Patent Office;	nerewith and is about to be filed in the
[]	was filed on	as U.S. Application No.
[]	was patented under U.S. Patent	No

WHEREAS, Cisco Technology, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of California and having a usual place of business at 170 West Tasman Drive, San Jose, California 95134-1706 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to

perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

**AND**, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor:
Dan Li
Dated: 6 20/03
1 Charles
Inventor:
Arun Desai
Dated: 5/20/2003
Inventor:
Zheng Yang
Dated: 6/20/2003
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Inventor:
Kenneth Mueller II
Dated:

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Inventor:		
	Stephen Morris	
Dated:		
Inventor:		
	Dmitry Stavisky	
Dated:		

Joint

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Inventor:	
•	Dan Li
Dated:	
Inventor:	
	Arun Desai
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Inventor:	Zheng Yang
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Dated:	
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	Coff MILL
Inventor:	Print Marie
	Kenneth Mueller II
D - 41.	6/27/2003
Dated:	

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Inventor:		
	Stephen Morris	
<b>-</b>		
Dated:		
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Inventor:		
	Dmitry Stavisky	
Dated:		

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Inventor:		
	Dan Li	
Dated:		
Inventor		
mventor	Arun Desai	
Dated:		
Inventor:	Zhana Vana	
	Zheng Yang	
Dated:		
Inventor:	Kenneth Mueller II	<del> </del>
Dated:		

Inventor: <u>Stephen Morris</u>

Dated: 6/19/03

**RECORDED: 06/30/2003** 

Inventor: Dmitry Stavisky

Dated: 6/20/03