12-16-2002	
FORM PTO-159( 1-31-92	TON FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
Docket No. 102311815	ATENTS ONLY demarks: Please record the attached original documents or copy thereto:
1. Name of Conveying Party(ies): DAVID A. FRIEDMAN, JOHN LYNDE, DAVID E. LA CRISTOPHER M. SHUPP, CHRIS EICH, ALEC HOTH SUHAS MANSINGH	. MOTTA, 2. Name and address of receiving party(ies): Name: Cisco Technology, Inc.
12/01/0	Internal Address:
Additional name(s) of conveying party(ies) attached?	
<ul> <li>3. Nature of Conveyance:</li> <li>Assignment</li> <li>Security Agreement</li> <li>Other</li> </ul>	City: San Jose State/Country CA ZIP: 95134
Execution Date: 12/5/02, 11/25/02, 12/2/02, 11/25/02, 11/25/02, 12/4/02	12/4/02, Additional name(s) & address(es) attached? Yes
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FC:8021   40.00 DP     A. Patent Application No(s).	11/25/02, 12/4/02, 11/25/02, 12/4/02 B. Patent No(s).
FC:8021 40.00 DP A. Patent Application No(s). Addition	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes
FC:8021   40.00 DP     A. Patent Application No(s).	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes
FC:8021 A. Patent Application No(s). 5. Name and address of party to whom correspondence c	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes         concerning         6. Total number of applications and patents involved:         1         7. Total fee (37 CFR 3.41)         \$40.00         ⊠ Enclosed
FC:8021 A. Patent Application No(s). 5. Name and address of party to whom correspondence c document should be mailed: Name: Hickman Palermo Truong & Becker LLP	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes         concerning         6. Total number of applications and patents involved:         1         7. Total fee (37 CFR 3.41)         \$40.00
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FC:8021       40.00 CP         A. Patent Application No(s).       Addition         5. Name and address of party to whom correspondence c       document should be mailed:         Name:       Hickman Palermo Truong & Becker LLP         Internal Address:	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes         concerning         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         8. Deposit account number:         50-1302
FC: 8021       40.00 CP         A. Patent Application No(s).       Addition         5. Name and address of party to whom correspondence c       document should be mailed:         Name:       Hickman Palermo Truong & Becker LLP         Internal Address:	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes         concerning         6. Total number of applications and patents involved:         1         7. Total fee (37 CFR 3.41)         \$40.00         Senclosed         1         2012         8. Deposit account number:         50-1302         205125         2
FC: 8021       40.00 DP         A. Patent Application No(s).       Addition         5. Name and address of party to whom correspondence c       document should be mailed:         Name:       Hickman Palermo Truong & Becker LLP         Internal Address:	11/25/02, 12/4/02,         11/25/02, 12/4/02         B. Patent No(s).         mal numbers attached?         Yes         concerning         6. Total number of applications and patents involved:         1         7. Total fee (37 CFR 3.41)         \$40.00         Ø         Enclosed         Authorized to be charged to deposit account         8. Deposit account number:         50-1302         95125         ONOT USE THIS SPACE

WHEREAS WE, DAVID A. FRIEDMAN, of Roseville, California; JOHN LYNDE, of Research Triangle Park, North Carolina; DAVID E. LA MOTTA, Morrisville, North Carolina; CRISTOPHER M. SHUPP, OF Apex, North Carolina; CHRIS EICH, of Petaluma, California; ALEC HOTHAN, of Sacramento, California; and SUHAS MANSINGH of Petaluma, California, have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled METHOD AND APPARATUS FOR AUTOMATICALLY ESTABLISHING BI-DIRECTIONAL LINE-SWITCHED RINGS IN TELECOMMUNICATION NETWORKS, executed by us on the date of execution of this document, as shown below, and filed concurrently herewith;

AND WHEREAS, Cisco Technology, Inc., a corporation of the State of California and having an address of 170 West Tasman Drive, San Jose, CA 95134-1706 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries which may be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, We do hereby sell, assign, transfer and set over unto Cisco Technology, Inc., its legal representatives, successors, and assigns, the entire right, title and interest in and to said invention as set forth in the above-mentioned application, including any continuations, continuations-in-part, divisions, reissues, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued for said invention;

UPON SAID CONSIDERATIONS, We hereby agree with the said assignee that We will not execute any writing or do any act whatsoever conflicting with these presents, and that We will, at any time upon request, without further or additional consideration but at the expense of said assignee, execute such additional assignments and other writings and do such additional acts as said assignee may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and assignee;

AND We request the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States which may be issued for said invention to said Cisco Technology, Inc., its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

Page 1 of 8

EXPRESS MAIL LABEL #EL734973455US PATENT REEL: 013566 FRAME: 0685 Docket No. 50325-0693 (6454)

Date

DAVID A. FRIEDMAN

STATE OF CALIFORNIA ) \$\$: COUNTY OF SOROM?

 $\frac{1}{2002}$ , before me personally appeared DAVID On this 5th day of A. FRIEDMAN, 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.

SEAL

31 OFFICIAL SEAL - 1306033 iŚ VCR-1 MICHELLE D. THOMAS NOTARY PUBLIC - CALIE. COUNTY OF SONOMA My Comm. Exp. June 24, 2005 [ 🖡 ورسوس معام معام در تربيع المائد مردم والمع

10/10 5 Notary Public

My commission expires <

Page 2 of 2

EXPRESS MAIL LABEL #EL734973455US PATENT REEL: 013566 FRAME: 0686

Docket No. 50325-0693 (6454)

25-02

STATE OF NORTH CAROLINA ) ) ss: COUNTY OF wate )

On this  $\frac{\partial \partial^{n}}{\partial u}$  day of  $\underline{\partial u}$  ender,  $\partial u \partial v$ , before me personally appeared JOHN LYNDE, 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.

mm. Breek

SEAL

Notary

My commission expires

My Commission Expires 6-15-2003

Page 3 of 3

EXPRESS MAIL LABEL #EL734973455US

Docket No. 50325-0693 (6454)

12.2.2002

Date

DAVID E. LA MOTTA

STATE OF NORTH CAROLINA ) ) ss: COUNTY OF Wate )

On this <u>Ind</u> day of <u>Occenter</u>, 2007, before me personally appeared DAVID E. LA MOTTA, 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.

m. Buplu

SEAL

My commission expires

My Commission Expires 6-15-2003

EXPRESS MAIL LABEL #EL734973455US Page 4 of 4

Docket No. 50325-0693 (6454)

Cristophen M Sheff ov 25 2002 **CRISTOPHER M. SHUPP** 

STATE OF NORTH CAROLINA ) ss: COUNTY OF wale

On this 25 day of <u>Source 2007</u>, before me personally appeared CRISTOPHER M. SHUPP, 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.

m. Butel Notary

S E A L

My commission expires \_\_\_\_\_

My Commission Expires 6-15-2003

Page 5 of 5

EXPRESS MAIL LABEL #EL734973455US PATENT REEL: 013566 FRAME: 0689

Docket No. 50325-0693 (6454)

CHRIS

Date

STATE OF CALIFORNIA ) ss: COUNTY OF DONOMA

On this 4h day of becambler, before me personally appeared CHRIS EICH, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person On this 4th day of \_ 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.

Notary Public

My commission expires  $\sqrt{}$ 00

SEAL



Page 6 of 8

EXPRESS MAIL LABEL #EL734973455US

Docket No. 50325-0693 (6454)

ALECHOTHAN

Date

STATE OF CALIFORNIA ) ss: COUNTY OF Sacrament

11/25/02

On this  $25^{-}$  day of  $2002^{-}$ , before me personally appeared ALEC HOTHAN, 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.

SEAL

Min Callers Notary Public

My commission expires 12305



Page 7 of 8 EXPRESS MAIL LABEL #EL734973455US

Docket No. 50325-0693 (6454)

12/04/2002

Date

SUHAS MANSINGH

STATE OF CALIFORNIA ) ss: COUNTY OF Some )

On this 4 day of 200, before me personally appeared SUHAS MANSINGH, 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.

Page 8 of 8

SEAL

Notary Public

My commission expires

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la de la com OFFICIAL SEAL - 1249289 ROBERT NORRIS FOSTER COUNTY OF SONOMA Nr Comm. Exp. Feb. 8, 2004 P.M. 1174983

EXPRESS MAIL LABEL #EL734973455US

PATENT REEL: 013566 FRAME: 0692

**RECORDED: 12/09/2002**