		HEET	Patent and	U.S. Department of Commerce Patent and Trademark Office	
TO: The Commissioner of Patents and Trademarks: Flease record and attached original document(s) or copy(ies).					
Submission Type New Resubmission (Non-Recordation) Document ID # Correction of PTO Error Reel # Frame # Corrective Document Reel # Frame #	10/9/01	Conveyance Typ Assignment License Merger Security Agre Change of Na Other:	ement	73508 PTO	
Conveying Party(ies) 1. Warkhede, Priyank Ramesh 2. Eatherton, William N. 3. Maniyar, Shyamsundar N. 4. Marimuthu, Peram 5. 6.	ing Darting Attaches	1	Execution Date(09192001 09212001 09182001 09192001	973508	
Mark if Additional Names of Conveying Parties Attached Receiving Party Name Cisco Technology, Inc. Name a corporation of California Address 170 W. Tasman Drive Address Address Address San Jose City State/Country Mark if Additional Names of Receiving Parties Attached					
Correspondent Name and Address The Law Office of Kirk D. Williams (Customer No. 26327) 1234 S. Ogden St. Denver, CO 80210-1713 Pages Enter the total number of pages of the attached Application Number(s) or Patent Number(s) Enter either the Patent Application Number or the Patent Number (D		Telephone: 303-282-0151 Facsimile: 303-778-0748 Attorney Docket No. 73130 Conveyance document including any attachments: 2			
Patent Application Num	bers				
If this document is being filed together with a new Patent Application, enter the date the application was signed by the first named executing inventor.			date the patent	Month Day Year 09192001	
Patent Cooperation Treaty (PCT) Enter PCT application number only if a U.S. Application Number has not been assigned.		PCT	PCT	PCT	
		PCT	PCT	PCT	
Number of Properties Enter the total number of properties involved: 1					
Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$40 Method of Payment: ☐ Enclosed is check No. 2134 in the amount of \$40 ☐ Charge Deposit Account No. 501430 Authorization to Charge Additional Fees to Deposit Account No. 501430: ☐ No					
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. Charges to deposit account are authorized, as indicated herein.					
Kirk D. Williams, Esq. (Reg. 42,229)	Signature Signature		October 9, 2001	October 9, 2001 Date	
Name of Person Signing 10/18/2001 DBYRNE 00000050 09973508	<u> </u>				

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PATENT REEL: 012253 FRAME: 0131

Attorney Docket No. 73130 CUSTOMER NUMBER 26327 The Law Office of Kirk D. Williams Attorney at Law 1234 S. Ogden St. Denver, CO 80210

ASSIGNMENT

WHEREAS, WE, PRIYANK RAMESH WARKHEDE (OF 3131 HOMESTEAD RD. #3F, SANTA CLARA, CA 95051), WILLIAM N. EATHERTON (OF 1266 HICKERSON COURT, SAN JOSE, CA 95127), SHYAMSUNDAR N. MANIYAR (OF 3483 GLENPROSEN CT., SAN JOSE, CA 95148), AND PERAM MARIMUTHU (OF 1565 FINCH WAY, SUNNYVALE, CA 94087), are the joint inventors of an invention entitled "METHOD AND APPARATUS FOR ALLOCATING AND USING RANGE IDENTIFIERS AS INPUT VALUES TO CONTENT-ADDRESSABLE MEMORIES" as described and claimed in the specification forming part of an application for United States letters patent executed herewith;

WHEREAS, Cisco Technology, Inc. (hereinafter referred to as Assignee), a corporation of the State of California having a place of business at 170 W. Tasman Drive, San Jose, CA 95134 is desirous of acquiring the entire United States domestic and foreign right, title, and interest in and under the invention described in the patent application and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

Now, THEREFORE, in exchange for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, we sell, assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive rights, title and interest in and to the invention in the United States and every foreign country and the entire right, title, and interest in and to the patent application and other such applications, including, but not limited to, provisional applications, non-provisional applications, continuations, continuations-inpart, divisionals, reissues, renewals, and extensions, that may be filed in the United States and every foreign country on the invention, and the patents or extensions thereof, both foreign and domestic, that may issue thereon, including the right to file foreign applications directly in the name of Assignee and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by Assignee and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by us had this assignment, transfer and sale not been made. We do hereby authorize and request the Commissioner of Patents and Trademarks to issue United States patents on said invention to Assignee.

WE DO HEREBY COVENANT and agree with Assignee that we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's

METHOD AND APPARATUS FOR ALLOCATING AND USING RANGE IDENTIFIERS AS INPUT VALUES TO CONTENT-ADDRESSABLE MEMORIES
ASSIGNMENT PAGE 1 of 2

PATENT REEL: 012253 FRAME: 0132 enjoyment of this assignment, and render all necessary assistance in making application for and obtaining patents of the United States and of any and all foreign countries on the invention, including, but not limited to, provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, renewals, and extensions, and in enforcing any rights or choses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, including executing all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

WE have hereunder set our hands on the dates shown below.

Date 19 Sept. 2001	PRIYANK RAMESH WARKHEDE
Date $\frac{9/21/2001}{}$	WILLIAM N. EATHERTON
Date 9 18 2001	SHYAMSUNDAR N. MANIYAR
Date	PERAM MARIMUTHU

METHOD AND APPARATUS FOR ALLOCATING AND USING RANGE IDENTIFIERS AS INPUT VALUES TO CONTENT-ADDRESSABLE MEMORIES ASSIGNMENT PAGE 2 of 2

PATENT RECORDED: 10/09/2001 REEL: 012253 FRAME: 0133