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| Marc Abrams Nambirajan Seshadri  | Name: Broadcom Corporation                                    |  |  |
| ,  | Internal Address:   |  |  |
| Execution Date(s) <u>March 23, 2005</u> Additional name of conveying party(ies) attached? ☐ Yes ☑ No                         | Street Address: 16215 Alton Parkway                           |  |  |
| 3. Nature of conveyance:   | P.O. Box 57013  |  |  |
|  | City: Irvine  |  |  |
| ☐ Security Agreement ☐ Change of Name  | State: California   |  |  |
| ☐ Government Interest Assignment   | Country: USA Zip; 92619-7013                                  |  |  |
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| 4. Application number(s) or patent number(s):  | This document is being filed together with a new application. |  |  |
| A. Patent Application No.(s)<br>11/095,841   | B. Patent No.(\$)   |  |  |
|  |   |  |  |
| Additional numbers attached?  Yes  No  |   |  |  |
| <ol><li>Name and address of party to whom correspondence<br/>concerning this document should be mailed:</li></ol>            | 6. Total number of applications and patents involved: 1       |  |  |
| Name: Kevin E. Borg 51,486   | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00                 |  |  |
| Internal Address: McAndrews, Held & Malloy, LTD  | Authorized to be charged by credit card                       |  |  |
| 34 <sup>th</sup> Floor   | Authorized to be charged to deposit account                   |  |  |
| Street Address: 500 W. Madison   | ☐ Enclosed  |  |  |
|  | ☐ None required (government interest not affecting title)     |  |  |
| City: Chicago  | 8. Payment Information  |  |  |
| State:   |   |  |  |
| Phone Number : 312-775-8000  | a. Credit Card Last 4 Numbers<br>Expiration Date              |  |  |
| Fax Number: _312-775-8100  | b. Deposit Account Number 13-0017                             |  |  |
| Email Address: kborg@mhmlaw.com  | Authorized User Name McAndrews Held & Malloy, Ltd.            |  |  |
| 9. Signature : (   | May 5, 2005   |  |  |
| Signature Signature Kevin E. Borg 51,486   | Date Total number of pages including cover                    |  |  |
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PATENT REEL: 016191 FRAME: 0558

## ASSIGNMENT

File No.:

15725US02

Application Serial No.: 11/095,841

Inventors:

Jeyhan Karaoguz

Marc Abrams

Nambirajan Seshadri

Filing Date: March 30, 2005

In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, each of the undersigned hereby assigns to Broadcom Corporation, incorporated under the laws of the state of California, its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled: **PROVIDING ACCESS DEPENDENT SERVICES VIA A BROADBAND ACCESS**GATEWAY, and identified as File No. 15725US02 in the offices of McAndrews, Held & Malloy, Ltd., and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assign to said assignee the priority right provided by the International Convention.

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

Each of the undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known.

Each of the undersigned warrants himself/herself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations, each of the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other document for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations each of the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any

PATENT REEL: 016191 FRAME: 0559

proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence and performing any and all other acts necessary to obtain said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WITNESS my hand this

WITNESS my hand this 22 day of March

Marc Abrams

WITNESS my hand this 23 day of March 2004.

Nambirajan Seshadri

- 5 -

**PATENT REEL: 016191 FRAME: 0563**