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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Invent | torship                                | OII Let al              |
|--------|--|-------------------------|
| Арри   | cant                                   |                         |
| Attorr | ney's Docket No                        | 215107                  |
| Title: | ADAPTIVE ALLOCATION OF LAST-HOP BANDWI | DTH BASED ON MONITORING |
|        | OF END-TO-END THROUGHPUT               |                         |

# PATENT ASSIGNMENT

# **PARTIES TO THE ASSIGNMENT**

## Assignor(s):

Lili Qiu 15318 NE 13th Place, Apt. 2202 Bellevue, Washington, 98007

Paramvir Bahl 2221 271st Ct, SE Sammanish, Washington, 98075

Atul Adya 14590 NE 35<sup>th</sup> Street, Apt. D204 Bellevue, Washington, 98007

Microsoft Corporation Corporation in the State of Washington One Microsoft Way Redmond, WA 98052

# **AGREEMENT**

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled

" ADAPTIVE ALLOCATION OF LAST-HOP BANDWIDTH BASED ON MONITORING OF END-TO-END THROUGHPUT," as described and claimed in the specification forming part of an application for United States letters patent referenced above;

Page 1 of 3

WHEREAS, Microsoft Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Washington having a place of business at One Microsoft Way, Redmond, WA 98052, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, 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 ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute 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 therefor.

Page 2 of 3

| May 13, 2002  Date | Lili Qiu      |  |
|--------------------|---------------|--|
|                    |               |  |
| Date .             | Paramvir Bahl |  |
| Date               | Atul Adya     |  |

Page 3 of 3

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Invent | torship                                   | QIU, et al.           |
|--------|---|-----------------------|
| Applie | cant                                      | Microsoft Corporation |
| Attorr | ney's Docket No                           | 215107                |
|        | ADAPTIVE ALLOCATIÓN OF LAST-HOP BANDWIDTH |                       |
|        | OF END-TO-END THROUGHPUT                  |                       |

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Page 2 of 3

| Date              | Lili Qiu      |
|-------------------|---------------|
| 5/13/02<br>Date   | Paramvir Bahl |
| 5/13/2002<br>Date | Abull Adva    |

**RECORDED: 05/13/2002**