

# PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
Name	Execution Date
Ning SO	12/03/2009
<b>RECEIVING PARTY DATA</b>	
Name:	Verizon Patent and Licensing, Inc.
Street Address:	One Verizon Way
City:	Basking Ridge
State/Country:	NEW JERSEY
Postal Code:	07920
<b>PROPERTY NUMBERS Total: 1</b>	
Property Type	Number
Application Number:	12630086
<b>CORRESPONDENCE DATA</b>	
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NAME OF SUBMITTER:	Tony M. Cole
Total Attachments: 1 source=20090607_Signed_Assignment#page1.tif	

OP \$40.00 12630086

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**PATENT**  
**REEL: 023599 FRAME: 0198**

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

- I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

### BIDIRECTIONAL FORWARDING DETECTION (BDF) PROTOCOL EXTENSION FOR DETECTING RANDOM TRAFFIC DROPPING

☒ which has been executed by the undersigned concurrently herewith, and in which case I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 12/630,086, filed December 3, 2009) the filing date and application number of said application when known.

☐ which was filed on \_\_\_\_\_ and assigned Application No. \_\_\_\_\_

and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to said application; and in and to all original and reissued patents which have been or shall be issued in the United States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;

- II. agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and

- III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:

Verizon entity (Assignee): Verizon Patent and Licensing, Inc., having a place of business at One Verizon Way, Basking Ridge, NJ 07920.

ASSIGNORS:

Signature: \_\_\_\_\_

Ning SO

Date: 12/13/09