

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Steven Noel</td> <td>01/04/2005</td> </tr> <tr> <td>Sushil Jajodia</td> <td>01/18/2005</td> </tr> <tr> <td>Brian O'Berry</td> <td>01/25/2005</td> </tr> <tr> <td>Michael Jacobs</td> <td>01/04/2005</td> </tr> </tbody> </table>		Name	Execution Date	Steven Noel	01/04/2005	Sushil Jajodia	01/18/2005	Brian O'Berry	01/25/2005	Michael Jacobs	01/04/2005
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Steven Noel	01/04/2005										
Sushil Jajodia	01/18/2005										
Brian O'Berry	01/25/2005										
Michael Jacobs	01/04/2005										
RECEIVING PARTY DATA											
Name:	George Mason University										
Street Address:	4400 University Dr.										
Internal Address:	MSN 5G5										
City:	Fairfax										
State/Country:	VIRGINIA										
Postal Code:	22030										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11250449</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11250449						
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Application Number:	11250449										
CORRESPONDENCE DATA											
Fax Number:	7039939710										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
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Address Line 2:	MSN 5G5										
Address Line 4:	Fairfax, VIRGINIA 22030										
ATTORNEY DOCKET NUMBER:	GMU-05-007U										
NAME OF SUBMITTER:	Carolyn Klenner										

OP \$40.00 11250449

Signature:	/Carolyn Klenner/
Date:	08/02/2013
Total Attachments: 4 source=ASN2.05.007_Noel#page1.tif source=ASN1.05.007_Jajodia#page1.tif source=ASN3.05.007_O'Berry#page1.tif source=ASN4.05.007_Jacobs#page1.tif	

ASN2\_gmu.05.007

Docket Number: GMU.05.007

### ASSIGNMENT OF INVENTION

WHEREAS, Steven Noel, hereinafter called the "Assignor," has invented a new and useful invention entitled "A Scheme for Efficient Minimum-Cost Network Hardening" for which the United States Provisional Patent Application entitled, "Minimum-Cost Network Hardening," Provisional Patent Application Number 60/619,875 was filed on October 19, 2004.

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee," whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

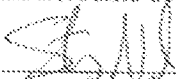
NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefor, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

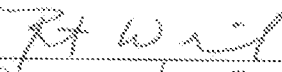
IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

Date: 1/4/2005

  
Steven Noel

WITNESSED:

Date: 1-4/05

  
Jennifer Jacobs

Date: 1/4/05

Docket Number: GMU.05.007

**ASSIGNMENT OF INVENTION**

WHEREAS, Sushil Jajodia, hereinafter called the "Assignor," has invented a new and useful invention entitled "A Scheme to Efficient Minimum-cost Network Hardening" for which the United States Provisional Patent Application entitled, "Minimum-Cost Network Hardening", Provisional Patent Application Number 60/619,875 was filed on October 19, 2004.

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefor, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

Date: 18 Jan 2005

Sushil Jajodia  
Sushil Jajodia

WITNESSED:

Date: 1/18/05

Jennifer Jacobs  
Anat Singh

Date: 1/18/05

Docket Number: GMU.05.007

ASSIGNMENT OF INVENTION

WHEREAS, Brian O'Berry, hereinafter called the "Assignor," has invented a new and useful invention entitled "A Scheme to Efficient Minimum-cost Network Hardening" for which the United States Provisional Patent Application entitled, "Minimum-Cost Network Hardening", Provisional Patent Application Number 60/619,875 was filed on October 19, 2004.

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefor, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

Date: 1/25/05

Brian C. O'Berry  
Brian O'Berry

WITNESSED:

Date: 1/25/05

[Signature]

Date: 1/25/05

Tracy William

ASSIGNMENT OF INVENTION

WHEREAS, Michael Jacobs, hereinafter called the "Assignor," has invented a new and useful invention entitled "A Scheme to Efficient Minimum-cost Network Hardening" for which the United States Provisional Patent Application entitled, "Minimum-Cost Network Hardening", Provisional Patent Application Number 60/619,875 was filed on October 19, 2004.

WHEREAS, George Mason University, of Fairfax, Virginia, hereinafter called the "Assignee", whose mailing address is: 4400 University Drive, Fairfax, VA 22030, is desirous of acquiring the entire right, title and interest in and to said invention, the applications above identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and in, to and under any Letters Patent which may be granted thereof, including all reissues, reexaminations, and extensions thereof.

NOW, THEREFORE, in consideration of good and valuable and legally sufficient considerations, the receipt of which by said Assignor from the said Assignee is hereby acknowledged, the said Assignor has sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignee, the entire, right, title and interest for the United States in and to the invention and application hereinabove identified, including any provisionals, continuations, divisionals, continuations-in-part, and any applications claiming benefit to said applications, and any Letters Patent of the United States that may issue for said invention, together with the entire right, title and interest in and to said invention and applications for Patent and Patent therefor, in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; to have and to hold for the sole and exclusive use and benefit of the said Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said inventions may issue.

And the said Assignor does hereby covenant and agree, for himself and his legal representatives, that he will assist the said Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the said Assignee may elect to make covering the invention herein identified, as hereinabove set forth; in vesting in the said Assignee like exclusive title in and to all such other applications and Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Patent herein contemplated; and that they will execute and deliver to the said Assignee any and all additional papers which may be requested by the said Assignee to fully carry out the terms of this Assignment.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue Letters Patent to the said Assignee in accordance with the terms of this Assignment.

IN TESTIMONY WHEREOF, the said Assignor has hereunto set his hands and affixed his seal.

Date: 1/4/05

Michael Jacobs

WITNESSED:

Date: 1-4/05

R. W. [Signature]

Date: 1/4/05

Jennifer Jacobs