# PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
NETWORK PHYSICS, INC.	10/19/2007

### RECEIVING PARTY DATA

Name:	OPNET Technologies, Inc.
Street Address:	7255 Woodmont Avenue
City:	Bethesda
State/Country:	MARYLAND
Postal Code:	20814-7900

### PROPERTY NUMBERS Total: 27

Property Type	Number
Patent Number:	6600752
Patent Number:	6674717
Patent Number:	6928472
Patent Number:	6947381
Patent Number:	6990071
Patent Number:	7072297
Patent Number:	7092355
Patent Number:	7248564
Patent Number:	7277843
Application Number:	10915550
Application Number:	10937986
Application Number:	10923576
Application Number:	11001985
Application Number:	11061978
Application Number:	11092226
	DATENT

PATENT " REEL: 019984 FRAME: 0376

500379930

Application Number:	11148055
Application Number:	09846451
Application Number:	09846452
Application Number:	10205135
Application Number:	11193967
Application Number:	10195904
Application Number:	10195905
Application Number:	11173758
Application Number:	11173752
Application Number:	10318633
Application Number:	60340205
Application Number:	60488225

#### **CORRESPONDENCE DATA**

Fax Number: (617)310-9866

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 617-439-2866
Email: jso@nutter.com
Correspondent Name: Rena Marie Strand
Address Line 1: 155 Seaport Boulevard

Address Line 4: Boston, MASSACHUSETTS 02210-2604

ATTORNEY DOCKET NUMBER:	OPNET
NAME OF SUBMITTER:	Rena Marie Strand

Total Attachments: 6

source=PatentAssignment#page1.tif source=PatentAssignment#page2.tif source=PatentAssignment#page3.tif source=PatentAssignment#page4.tif source=PatentAssignment#page5.tif source=PatentAssignment#page6.tif

#### PATENT ASSIGNMENT

WHEREAS, Network Physics, Inc., a Delaware corporation ("Assignor"), and OPNET Technologies, Inc., a Delaware corporation ("Assignee"), are parties to that certain Asset Purchase Agreement dated as of October \_\_\_\_, 2007 (the "Agreement"); and

WHEREAS, pursuant to the Agreement, the Assignor has agreed to sell, transfer and assign to Assignee, any right, title and interest of the Assignor in and to the Patents and Patent Applications listed on Schedule A attached hereto, and the inventions and discoveries disclosed therein (the "Patents").

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, Assignor does hereby sell, assign and transfer unto the Assignee all of its right, title and interest in, to and under the patents and patent applications, including any inventions disclosed therein whether or not presently claimed, together with the right to sue and recover for the past infringements of the patents and patent applications, the same to be held and enjoyed by Assignee for its own use and enjoyment, and for the use and enjoyment of its successors, assigns and other legal representatives as fully and entirely as the same would have been held and enjoyed by Assignor had this Assignment not been made.

FURTHER, Assignor agrees to execute and provide promptly after its execution hereof, such further instruments and documents or assignments as may be reasonably necessary to effectuate the purpose of this transaction and consolidate, vest and record in Assignee, Assignor's rights in, to and under the patents and patent applications.

[Remainder of Page Intentionally Left Blank]

1

IN WITNESS WHEREOF, Assignor has caused this assignment to be executed as an instrument under seal by its duly authorized officer this \_\_ day of October, 2007.

Title: CEO

NETWORK PHYSICS, INC.

State of California	
County of	
On this	day of October 2007. before me, the undersigned notary public,, proved to me through satisfactory evidence of identification,, to be the person whose name is signed on the document, and acknowledged to me that he signed it voluntarily for its
Notary Public My commission expir	See Atlached

[Patent Assignment Signature Page]

State of California	**************************************
C	ss.
County of Mates	
On October 17, 2007, before	me, Brian Pavia, Votary Public  Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared	Kerny Fresichs Name(s) of Signer(s)
	☐ personally known to me
	proved to me on the basis of satisfactory evidence
	to be the person(e) whose name(s) is/are subscribed
BRIAN PAWA	to the within instrument and acknowledged to me that
Commission # 1662786	he/she/they executed the same in his/her/their
Notary Public - Collomia 3	authorized capacity <del>(ies)</del> , and that by his/her/their
Santa Clara County My Comm. Expires May 1, 2010	signature(s) on the instrument the person(s), or the
Constitution 1, 2010	entity upon behalf of which the person(s) acted
	executed the instrument.
	1
	WITNESS my/han/t and official seal.
	// Jane omoial scal.
Place Notary Seal Above	/// //
	Signature of Notary Public
Though the information I I is a	— OPTIONAL ———
and could prevent fraudulent re	red by law, it may prove valuable to persons relying on the document emoval and reattachment of this form to another document.
Description of Attached Document	and reducerment of this form to another document.
Title or Type of Document:	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Document Date:	Number of Pages:
Signer(s) Other Than Named Above:	
Capacity(ies) Claimed by Signer(s)	
Signer's Name:	Signer's Name:
□ Individual	☐ Individual
Corporate Officer Title(a)	
	Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General RIGHT TO OF	HUMBPRINT Partner - Limited General BIGHT THUMBPRINT
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact	HUMBPRINT SIGNER  Attorney in Fact  General FIGHT THUMBPRINT OF SIGNER Top of thumb here
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee	HUMBPRINT SIGNER Attorney in Fact OF SIGNER  Trustee
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator	HUMBPRINT SIGNER humb here  Attorney in Fact Trustee Guardian or Conservator  HIGHT THUMBPRINT OF SIGNER Top of thumb here
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator ☐ Other:	HUMBPRINT SIGNER humb here  Attorney in Fact Trustee General FIGHT HUMBPRINT OF SIGNER Top of thumb here
☐ Partner — ☐ Limited ☐ General	HUMBPRINT SIGNER humb here  Attorney in Fact Trustee Guardian or Conservator  HIGHT THUMBPRINT OF SIGNER Top of thumb here
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator ☐ Other:	HUMBPRINT SIGNER humb here  Attorney in Fact  Trustee  Guardian or Conservator  Other:
☐ Partner — ☐ Limited ☐ General ☐ Attorney in Fact ☐ Trustee ☐ Guardian or Conservator ☐ Other:	HUMBPRINT SIGNER humb here  Attorney in Fact  Trustee  Guardian or Conservator  Other:

# Schedule A

# **PATENTS**

Title	Inventor	Assignee	Patent Number	_	Registration Date	Juris- diction
Method for reducing excess queue time in communication nodes	Duong-Van, Minh	Network Physics, Inc.	6,600,752	June 30, 1999		US
Method for reducing packet loss and increasing internet flow by feedback control	Duong-Van, Minh; Pavel, Thomas J.; Wen, Han C.	Network Physics, Inc.	6,674,717	March 30, 2000	January 6, 2004	US
Method for correlating congestion to performance metrics in internet traffic	Wen, Han C.	Network Physics, Inc.	6,928,472	July 23, 2002	August 9, 2005	US
Method for reducing packet loss by phase transition identification in communication networks	Wen, Han C.; Duong-Van, Minh; Pavel, Thomas J.; Crane, Mark	Network Physics, Inc.	6,947,381	April 30, 2001	September 20, 2005	US
Method for reducing fetch time in a congested communication network	Adam, Ian; Pavel, Thomas J.; Wen, Han C.; Duong-Van, Minh; Crane, Mark	Network Physics, Inc.	6,990,071	April 30, 2001	January 24, 2006	US
Method for dynamical identification of network congestion characteristics	Adam, Ian; Pavel, Thomas J.; Wen, Han C.; Duong-Van, Minh; Crane, Mark	Network Physics, Inc.	7,072,297	April 30, 2001	July 4, 2006	US
Method for controlling congested network flow	Duong-Van, Minh	Network Physics, Inc.	7,092,355	June 30, 1999	August 15, 2006	US
Method for determining network congestion and link capacities	Grosdidier, Gilbert; Duong-Van, Minh; Pavel, Thomas J.; Wen, Han C; Adam, Ian et al	Network Physics, Inc	7,248,564	May 11, 2001	July 24, 2007	US
Method for real-time auto determination of outliers	Wen, Han; Pavel, Tomas J.	Network Physics, Inc	7,277,843	July 15, 2002	October 2, 2007	US

3

# PATENT APPLICATIONS

Title	Inventor	Assignee	File Number	Filing Date	Juris- diction
Method and apparatus for detecting a computer worm virus	Dwight G. Barker; Han C. Wen; George Zioulas	Network Physics, Inc.	10/915,550	8/9/2004	US
Method and system for grouping diagnostic information	Han C. Wen; George Zioulas; Masood Ahmed	Network Physics, Inc.	10/937,986	9/10/2004	US
Method for prioritizing group data reduction	George Zioulas; Dimitrus Stassinopoulos; Han C. Wen	Network Physics, Inc.	10/923,576	8/20/2004	US
Method for discovery and troubleshooting of network application usage and performance issues	Han C. Wen; George Zioulas; Stephen Guarini; Masood Ahmed; Erik Seilnacht	Network Physics, Inc.	11/001,985	12/1/2004	US
Method and system for topological navigation of hierarchical data groups	Joe Sapsford; Han C. Wen	Network Physics, Inc.	11/061,978	2/18/2005	US
Method and system for managing a distributed network of network monitoring devices	Dimitrus Stassinopoulos; George Zioulas; Han C. Wen	Network Physics, Inc.	11/092,226	3/28/2005	US
Distributed network monitoring system	Stephen Guarini; Thomas J. Pavel; Mark Crane; Erik Seilnacht; Romain Kang	Network Physics, Inc.	11/148,055	6/8/2005	US
Method for reducing packet loss by resonance identification in communication networks	Minh Duong-van; Han C. Wen; Mark Crane; Thomas J. Pavel	Network Physics, Inc.	09/846,451	4/30/2001	US
flows in communication	Han C. Wen; Ian Adam; Minh Duong- Van; Thomas J. Pavel; Mark Crane	Network Physics, Inc.	09/846,452	4/30/2001	US
A Bayesian approach to correlating congestion to performance metrics in internet traffic	Han C. Wen	Network Physics, Inc.	10/205,135	7/23/2002	US
Learning detection engine for network monitoring applications	Minh Duong-van	Network Physics, Inc.	11/193,967	7/28/2005	US
congestion in internet traffic	Han C. Wen; Thomas J. Pavel	Network Physics, Inc.	10/195,904	7/15/2002	US
Method for real-time auto- detection of outliers	Han C. Wen; Thomas J. Pavel	Network Physics, Inc.	10/195,905	7/15/2002	US
Method and system for collecting and consolidating network traffic information	George Zioulas; Wenjie Ding	Network Physics, Inc.	11/173,758	6/30/2005	US

4

Mothed and avistant for	Maria E. Connec	NT-41-	11/1/20 7/50	6/20/2005	7.10
Method and system for	Mark E. Crane;	Network	11/173,752	6/30/2005	US
identifying duplicate packets in		Physics, Inc.			
flow-based network monitoring	Wei Yue				
system					
Method and apparatus for	Minh Duong-van	None		NOT YET RIPE	US
network congestion					
management					
Method for guided workflows	Stephen Guarini;	None		NOT YET RIPE	US
in network application	Han C. Wen				
performance monitoring					
Method and system for	George Zioulas;	None		NOT YET RIPE	US
managing traffic information of		Tronc		NOT TEL KILL	OB
logical groups in a distributed	Han Wen				
	I I all Well				
network monitoring system					
User interface for network	Han Wen; Nai-ting	?		NOT FILED	US
performance monitoring	Hsu; David			(draft complete)	
	Trowbridge; John				
	Connelly; Silvia				
	Veronese				
Neural network predicator for	Richard	?		NOT FILED	US
real-time network traffic	Blackenbecler; Minh			(drafted, sent to	
control using approximately	Duong-van			client)	
selected variables					
Method for reducing response	Han C. Wen; Matt	?		NOT FILED	US
time by breathing mode	Langston; Minh	•		(drafted, sent to	US
identification in communication				1 1	
				client)	
networks	Adam; Phomas J.				
	Pavel; Richard				
	Blackenbecler; Mark				
4	Crane				
Neural network correlation	Minh Duong-van	?		NOT FILED	US
engine				(draft complete)	
Method for configuring logical	George Zioulas;	?		NOT FILED	US
groupings in a distributed	Stephen Guarini;				
network monitoring system	Han Wen				
Method and apparatus for	Minh Duong-van;	None	10/318,633	12/12/2002	US
reducing packet loss in	Richard	110110	10,510,055	12/12/2002	00
computer networks –	Blankenbecker;				
ABANDONED FILING	1				
	Robert Cheng	NT =	60/240 205	10/10/0000	TTO
Method and apparatus for	Minh Duong-van;	None	60/340,205	12/12/2002	US
reducing packet loss in	Richard				
computer networks -	Blankenbecker;				
EXPIRED	Robert Cheng				
Method for detecting computer	Minh Duong-van;	None	60/488,225	7/16/2003	US
virus - EXPIRED	Dimitrus				
	Stassinopoulos;				
	Silvia Veronese;				
	Ludovic Milin				
Method for reducing packet	Minh Duong-van;	Network	US00/41174	10/16/2000	PCT
loss and increasing internet	Thomas J. Pavel;	Physics, Inc.	0500/711/7	10,10,2000	101
flow by feedback control –	Han C. Wen	inyones, inc.			
	I I AII C. W CII				
EXPIRED (but US patent with	1				
same title is issued)			l		

1670555.5

**RECORDED: 10/19/2007**