## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

JUNIPER NETWORKS, INC., Petitioner

V.

PARITY NETWORKS, LLC, Patent Owner

Case No.: To Be Assigned Patent No.: 6,831,891

#### **DECLARATION OF DR. NICHOLAS BAMBOS**



## **TABLE OF CONTENTS**

I.	PROF	FESSIONAL BACKGROUND1				
II.	MAT	ERIALS REVIEWED AND CONSIDERED3				
III.	MY UNDERSTANDING OF CERTAIN PATENT LAW PRINCIPLES					
	A.	Anticipation	6			
	B.	Obviousness	7			
	C.	Claim Construction.	9			
IV.	THE PERSON OF ORDINARY SKILL IN THE ART					
V.	SUMMARY OF THE '891 PATENT					
	B.	Prosecution History of the '891 Patent	17			
	C.	The '891 Patent Claims	18			
VI.	SCOPE AND CONTENT OF THE PRIOR ART					
	A.	Background21				
	B.	The Schwartz Patent Publication (Ex. 1004)				
	D.	The Muller Patent Publication (Ex. 1005)	27			
VII.		IMS 1-6 ARE UNPATENTABLE IN LIGHT OF THE PRIOR	30			
VIII.	COMPARISON OF THE PRIOR ART TO THE '891 PATENT					
	A.	Ground 1: <i>Schwartz</i> (Ex. 1004) in View of <i>Muller</i> (Ex. 1005) Would Have Rendered Claims 1-6 Obvious	30			
		1. Reasons to Combine <i>Schwartz</i> and <i>Muller</i>	30			
		2. Claim 1 Would Have Been Obvious Over <i>Schwartz</i> in View of <i>Muller</i>	of 32			



i.	Preamble: "A method for managing data traffic at a switching element in a fabric network, the switching element having two or more internally coupled ports"
ii.	Limitation 1[A]: "(a) establishing at each input port, a number of virtual output queues equal to the number of output ports, each virtual output queue at each individual input port dedicated to an individual output port, storing only packets destined for the associated output port, for managing incoming data traffic"
iii.	Limitation 1[B]: "(b) accepting or discarding data at each virtual output queue directed to a queue according to a quantity of data in the queue relative to queue capacity by providing a queue manager for monitoring quantity of queued data in relation to a preset threshold, and discarding data from each virtual output queue at a predetermined rate, when the quantity of queued data reaches or exceeds the threshold"
iv.	Limitation 1[C]: "wherein in step (b), the queue manager increases the rate of discarding as quantity of queued data increases above the preset threshold"
V.	Limitation 1[D]: "discarding all data traffic when the queue is full"
	2 Would Have Been Obvious Over <i>Schwartz</i> in View of r46
i.	Preamble: "A switching element for a fabric network"
ii.	Limitation 3[A]: "a plurality of input and output ports"
iii.	Limitation 3[B]: "a number of virtual output queues at each input port equal to the number of



3.

		output ports, each virtual output queue at each individual input port dedicated to an individual output port, storing only packets destined for the associated output port, for managing incoming data traffic"	48		
	iv.	Limitation 3[C]: "characterized in that a queue manager accepts or discards data directed to a queue according to a quantity of data in the queue relative to the queue capacity by monitoring quantity of queued data against a preset threshold, and discarding data from each virtual output queue at a predetermined rate, when the quantity of queued data reaches or exceeds the threshold"	48		
	V.	Limitation 3[D]: "wherein all data is discarded for a full queue"	48		
6.	Claim 5 Would Have Been Obvious Over <i>Schwartz</i> in View of <i>Muller</i>				
	i.	Preamble: "A data router having external connections to other data routers"	50		
	ii.	Limitation 5[A]: "an internal fabric network"	51		
	iii.	Limitation 5[B]: "a plurality of switching element nodes in the internal fabric network, each switching element node having a plurality of input and output ports, and at each input port, a number of virtual output queues equal to the number of output ports, each virtual output queue at each individual input port dedicated to an individual output port, storing only packets destined for the associated output port, for managing incoming data traffic"	52		
	iv.	Limitation 5[C]: "characterized in that a queue manager accepts or discards data directed to a queue according to a quantity of data in the queue relative to the queue capacity by monitoring the quantity of queued data against a preset threshold,			



			and begin to discard data from each virtual output queue at a predetermined rate, when the quantity of queued data reaches or exceeds the threshold"	52			
		V.	Limitation 5[D]: "wherein the queue manager increases the rate of discarding as quantity of queued data increases above the preset threshold"	52			
B.	Ground 2: <i>Firoiu</i> (Ex. 1006) in view of <i>Muller</i> (Ex. 1005) Would Have Rendered Claims 1-6 Obvious						
	1.	Reaso	ons to Combine Firoiu and Muller	53			
	2.		n 1 Would Have Been Obvious Over <i>Firoiu</i> in view of	55			
		i.	Preamble: "A method for managing data traffic at a switching element in a fabric network, the switching element having two or more internally coupled ports"	55			
		ii.	Limitation 1[A]: "(a) establishing at each input port, a number of virtual output queues equal to the number of output ports, each virtual output queue at each individual input port dedicated to an individual output port, storing only packets destined for the associated output port, for managing incoming data traffic"	56			
		iii.	Limitation 1[B]: "(b) accepting or discarding data at each virtual output queue directed to a queue according to a quantity of data in the queue relative to queue capacity by providing a queue manager for monitoring quantity of queued data in relation to a preset threshold, and discarding data from each virtual output queue at a predetermined rate, when the quantity of queued data reaches or exceeds the threshold"	57			
		iv.	Limitation 1[C]: "wherein in step (b), the queue manager increases the rate of discarding as				



# DOCKET A L A R M

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

#### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

