## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5031445

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

## **CONVEYING PARTY DATA**

Name	Execution Date
RPX CLEARINGHOUSE LLC	06/19/2018

## **RECEIVING PARTY DATA**

Name:	JEFFERIES FINANCE LLC
Street Address:	520 MADISON AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10022

## **PROPERTY NUMBERS Total: 1079**

Property Type	Number
Patent Number:	9319268
Patent Number:	6229788
Patent Number:	6080930
Patent Number:	6396853
Patent Number:	6421328
Patent Number:	6487194
Patent Number:	6363420
Patent Number:	6195714
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Patent Number:	6522699
Patent Number:	6483833
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Patent Number:	6223172
Patent Number:	6625156
Patent Number:	6418476
Patent Number:	6185570
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PATENT REEL: 046485 FRAME: 0644

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Property Type	Number
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Patent Number:	6563539
Patent Number:	6282194
Patent Number:	6246980
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Property Type	Number
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Patent Number:	7184431
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Patent Number:	7352836
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Patent Number:	7581093
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Patent Number:	7814222
Patent Number:	7680923
Patent Number:	7894581
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Patent Number:	7245798
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Patent Number:	8027347
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Patent Number:	9124486
Patent Number:	8024457

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Patent Number:	9432213
Patent Number:	7924715
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Patent Number:	8842076
Patent Number:	8194668
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Patent Number:	8750141
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Property Type	Number
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Property Type	Number
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Patent Number:	7107673
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Patent Number:	7106966
Patent Number:	7103350
Patent Number:	7103282
Patent Number:	7103003
Patent Number:	7099933
Patent Number:	7096043
Patent Number:	7095736
Patent Number:	7092934
Patent Number:	7092727
Patent Number:	7092356
Patent Number:	7082132
Patent Number:	7079772
Patent Number:	7079770
Patent Number:	7079640
Patent Number:	7076038
Patent Number:	7075933
Patent Number:	7072304
Patent Number:	7072031
Patent Number:	7069650
Patent Number:	7069646
Patent Number:	7068935
Patent Number:	7068762
Patent Number:	7065186
Patent Number:	7065143
Patent Number:	7058008
Patent Number:	7054557
Patent Number:	7051433
Patent Number:	7050861
Patent Number:	7050667
Patent Number:	7050565
Patent Number:	7047307
Patent Number:	7046693
Patent Number:	7043160
Patent Number:	7042912

Property Type	Number
Patent Number:	7039318
Patent Number:	7039190
Patent Number:	7039170
Patent Number:	7035541
Patent Number:	7035390
Patent Number:	7034994
Patent Number:	7031437
Patent Number:	7031045
Patent Number:	7016564
Patent Number:	7016375
Patent Number:	7010225
Patent Number:	7009964
Patent Number:	7007098
Patent Number:	6522885
Patent Number:	8811386
Patent Number:	8838959
Patent Number:	8948313
Patent Number:	8891549
Patent Number:	8819265
Patent Number:	7230952
Patent Number:	7738359
Patent Number:	7764688
Patent Number:	8737594
Patent Number:	8750702
Patent Number:	8782288
Patent Number:	8789087
Patent Number:	8792516
Patent Number:	8799430
Patent Number:	8804728
Patent Number:	8811182
Patent Number:	8838692
Patent Number:	8848693
Application Number:	14322166

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PATENT

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ATTORNEY DOCKET NUMBER:	F177835 RPX CLR PAT IPSA		
NAME OF SUBMITTER:	ALAN DELANEY		
SIGNATURE:	/Alan Delaney/		
DATE SIGNED:	06/29/2018		

### **Total Attachments: 71**

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#### PATENT SECURITY AGREEMENT

This Patent Security Agreement, dated as of June 19, 2018 (this "Patent Security Agreement"), is made by each signatory hereto listed under "Pledgors" (each a "Pledgor" and collectively, the "Pledgors"), in favor of Jefferies Finance LLC, in its capacity as collateral agent for the secured parties (in such capacity, together with its successors and permitted assigns, the "Collateral Agent") pursuant to that certain Credit Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented, extended, waived, renewed, replaced, refinanced or otherwise modified from time to time, the "Credit Agreement"), by and among, among others, Riptide Purchaser, Inc., a Delaware corporation (the "Initial Borrower"), RPX Corporation, a Delaware corporation (the "Company" and, together with the Initial Borrower and each Additional Borrower from time to time party thereto, the "Borrowers" and each individually, a "Borrower"), Riptide Parent, LLC, a Delaware limited liability company, certain subsidiaries and affiliates of the Borrowers from time to time party thereto, the lenders from time to time party thereto and the several agents party thereto, including the Collateral Agent.

## WITNESSETH:

WHEREAS, the Pledgors are party to a Security Agreement of even date with the Credit Agreement (as amended, restated, amended and restated, supplemented, waived, renewed, replaced or otherwise modified from time to time, the "Security Agreement") in favor of the Collateral Agent pursuant to which the Pledgors are required to execute and deliver this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, each Pledgor hereby agrees with the Collateral Agent as follows:

- SECTION 1. <u>Defined Terms</u>. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement, or if not defined therein, in the Credit Agreement.
- SECTION 2. <u>Grant of Security Interest in Patent Collateral</u>. Each Pledgor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a Lien on and security interest in all of the right, title and interest of such Pledgor in, to and under all the following Pledged Collateral, in each case excluding Excluded Property (collectively, the "<u>Patent Collateral</u>"):
- (a) all Patents, including, without limitation, the United States patents and patent applications listed on <u>Schedule 1</u> attached hereto, together with any and all (i) rights and privileges arising under applicable Legal Requirements with respect to the use or ownership of any of the foregoing, (ii) inventions, discoveries, designs and improvements described and claimed therein, and (iii) reissues, reexaminations, divisions, renewals, extensions, continuations and continuations in part thereof and amendments thereto; and
  - (b) all Proceeds of any and all of the foregoing.

SECTION 3. Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the Security Agreement, and the Pledgors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control.

SECTION 4. <u>Recordation</u>. Each Pledgor authorizes and requests that the Commissioner for Patents and any other applicable government officer record this Patent Security Agreement.

SECTION 5. <u>Counterparts</u>. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts. Delivery of an executed counterpart of this Patent Security Agreement by facsimile or other electronic means shall be effective as delivery of a manually executed counterpart of this Patent Security Agreement.

SECTION 6. <u>Governing Law</u>. This Patent Security Agreement shall be construed in accordance with and governed by the law of the State of New York. The terms of Section 10.09(b) and Section 10.10 of the Credit Agreement are incorporated herein *mutatis mutandis*.

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IN WITNESS WHEREOF, each Pledgor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

## **PLEDGORS**:

RPX CLEARINGHOUSE LLC,

a Delaware limited liability company

Name: Martin Roberts

Title: President

[Signature Page to Patent Security Agreement]

Accepted and Agreed:

JEFFERIES FINANCE LLC,

as Collateral Agent

By: \_\_\_\_ Name:

Title:

Brian Buoye

Managing Director

# SCHEDULE 1 to PATENT SECURITY AGREEMENT

## <u>UNITED STATES PATENTS AND PATENT APPLICATIONS</u>

## United States Patents:

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Q-in-q ethernet rings	United States of America	14251999	04/14/2014	9319268	4/19/2016	Granted
RPX Clearinghouse LLC	Method and apparatus for traffic shaping in a broadband fiber-based access system	United States of America	09084370	05/27/1998	6229788	05/08/2001	Granted
RPX Clearinghouse LLC	ESD/EMC gasket	United States of America	09085226	05/27/1998	6080930	06/27/2000	Granted
RPX Clearinghouse LLC	Providing data services to telecommunications user terminals	United States of America	09086116	05/28/1998	6396853	05/28/2002	Granted
RPX Clearinghouse LLC	Neighborhood list assimilation for cell-based microsystem	United States of America	09086299	05/28/1998	6421328	07/16/2002	Granted
RPX Clearinghouse LLC	Communications network	United States of America	09089728	06/03/1998	6487194	11/26/2002	Granted
RPX Clearinghouse LLC	Method and system for heuristically designing and managing a network	United States of America	09092411	06/04/1998	6363420	03/26/2002	Granted
RPX Clearinghouse LLC	System for transferring STM calls through ATM network by converting the STM calls to ATM and vice versa at the edge nodes of ATM network	United States of America	09092847	06/08/1998	6195714	02/27/2001	Granted
RPX Clearinghouse LLC	Loudspeaker- dependent audio compression	United States of America	09092851	06/08/1998	6201873	03/13/2001	Granted
RPX Clearinghouse LLC	Method and system for solving cellular communications frequency planning problem	United States of America	09096426	06/11/1998	6178328	01/23/2001	Granted
RPX Clearinghouse LLC	Methods and systems for call forwarding	United States of America	09096657	06/12/1998	6421339	07/16/2002	Granted
RPX Clearinghouse LLC	Message hub	United States of America	09098951	06/17/1998	6219353	04/17/2001	Granted
RPX Clearinghouse LLC	Transmission system for reduction of amateur radio interference	United States of America	09100010	06/19/1998	6522699	02/18/2003	Granted
RPX	Method for	United	09100590	06/19/1998	6483833	11/19/2002	Granted

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			No.			Issue Date	Status
Clearinghouse LLC	transmitting label switching control	States of America					
	information using the						
	open shortest path first						
	opaque link state advertisement option						
	protocol						
RPX	Modular scalable	United	09105469	06/26/1998	6359884	03/19/2002	Granted
Clearinghouse	packet scheduler with	States of					
LLC	rate based shaping and virtual port scheduler	America					
RPX	Address routing using	United	09107039	06/29/1998	6223172	04/24/2001	Granted
Clearinghouse	address-sensitive mask	States of					
LLC	decimation scheme	America	00105000	0.6/0.0/1.000	6605156	00/00/0000	G . 1
RPX Clearinghouse	Method of	United States of	09107080	06/29/1998	6625156	09/23/2003	Granted
Clearinghouse LLC	implementing quality- of-service data	America					
	communications over a						
	short-cut path through a routed network						
RPX	Method for	United	09107097	06/29/1998	6418476	07/09/2002	Granted
Clearinghouse	synchronizing network	States of	02101021	00/25/1550	0.15170	0.7.0072002	Gianica
LLC	address translator	America					
	(NAT) tables using the						
	open shortest path first						
	opaque link state						
	advertisement option						
RPX	method and apparatus	United	09108468	07/01/1998	6185570	02/06/2001	Granted
Clearinghouse	for performing radix	States of	09108408	07/01/1998	0185570	02/00/2001	Granicu
LLC	lookups using	America					
	transition bits and						
	fields in transition						
	tables						
RPX	Method and apparatus	United	09108469	07/01/1998	6247014	06/12/2001	Granted
Clearinghouse	for performing hash	States of America					
LLC	lookups using valid bit tables with pointers	America					
RPX	Method and apparatus	United	09108711	07/01/1998	6223174	04/24/2001	Granted
Clearinghouse	for performing radix	States of	07100711	07/01/1998	0223174	04/24/2001	Granica
LLC	lookups using valid bit	America					
	tables with pointers						
RPX	Method and apparatus	United	09108751	07/01/1998	6233574	05/15/2001	Granted
Clearinghouse	for performing radix	States of					
LLC	lookups using	America					
	transition tables with						
RPX	pointers  Communicating	United	09109863	07/06/1998	6304651	10/16/2001	Granted
Clearinghouse	network resource	States of	07107003	07/00/1770	0504051	10/10/2001	Granicu
LLC	locators to customer	America					
	premises equipment						
	using modified ring						
	access			0=11-		00/	
RPX	Method and apparatus	United	09110104	07/01/1998	6272145	08/07/2001	Granted
Clearinghouse	for communicating	States of America					
LLC	data across multiple communication links	America					
RPX	Interactive on line code	United	09111682	07/08/1998	6275223	08/14/2001	Granted
Clearinghouse	inspection process and	States of	07111002	07/00/1770	0213223	00/11/2001	Granicu
LLC	tool	America					
RPX	Address translation	United	09111718	07/08/1998	6141738	10/31/2000	Granted
Clearinghouse	method and system	States of					
LLC	having a forwarding	America					
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	table data structure						
RPX Clearinghouse LLC	Carrying speech-band signals over a power line communications system	United States of America	09114778	07/13/1998	6404773	06/11/2002	Granted
RPX Clearinghouse LLC	Transmitting communications signals over a power line network	United States of America	09114779	07/13/1998	5977650	11/02/1999	Granted
RPX Clearinghouse LLC	Apparatus for classifying a packet within a data stream in a computer network	United States of America	09118339	07/16/1998	6526066	02/25/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for speech recognition	United States of America	09119621	07/21/1998	6092045	07/18/2000	Granted
RPX Clearinghouse LLC	Virtual switching for interconnected networks	United States of America	09122433	07/24/1998	6434156	08/13/2002	Granted
RPX Clearinghouse LLC	Fault tolerant system and method	United States of America	09126855	07/31/1998	6327675	12/04/2001	Granted
RPX Clearinghouse LLC	Method and apparatus for secure data storage using distributed databases	United States of America	09128350	08/03/1998	6363481	03/26/2002	Granted
RPX Clearinghouse LLC	Programmable access carrier selection terminal	United States of America	09129724	08/05/1998	6222911	04/24/2001	Granted
RPX Clearinghouse LLC	Multi-protocol label switching virtual private networks	United States of America	09131051	08/07/1998	7039687	05/02/2006	Granted
RPX Clearinghouse LLC	Virtual private networks	United States of America	09131190	08/07/1998	6516417	02/04/2003	Granted
RPX Clearinghouse LLC	QoS based route determination method for communications networks	United States of America	09134924	08/17/1998	6377551	04/23/2002	Grantec
RPX Clearinghouse LLC	Method and apparatus for controlling a conference call	United States of America	09135204	08/17/1998	6236854	05/22/2001	Granteo
RPX Clearinghouse LLC	Polarization mode dispersion compensation	United States of America	09135967	08/18/1998	6271952	08/07/2001	Granteo
RPX Clearinghouse LLC	Method and apparatus for red (random early detection) and enhancements.	United States of America	09136416	08/19/1998	6333917	12/25/2001	Granteo
RPX Clearinghouse LLC	Method for synchronizing network address translator (NAT) tables using the server cache synchronization protocol	United States of America	09137571	08/21/1998	6331984	12/18/2001	Granteo
RPX Clearinghouse LLC	System and method for communications management with a network presence icon	United States of America	09137687	08/21/1998	6510452	01/21/2003	Granted
RPX Clearinghouse LLC	Payload mapping in synchronous networks	United States of America	09143465	08/27/1998	6584118	06/24/2003	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Frame based data transmission over synchronous digital	United States of America	09143466	08/27/1998	6496519	12/17/2002	Granted
RPX Clearinghouse LLC	Method and device for providing intermediate telephone service with enhanced network	United States of America	09144109	08/31/1998	6393122	05/21/2002	Granted
	reliability						
RPX Clearinghouse LLC	Method and devices for bridging data and telephone networks	United States of America	09144110	08/31/1998	6253249	06/26/2001	Granted
RPX Clearinghouse LLC	Network interconnected computing device, server and notification method	United States of America	09144111	08/31/1998	6393467	05/21/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for routing traffic within a network utilizing linear optimization	United States of America	09144509	08/31/1998	6574669	06/03/2003	Grantec
RPX Clearinghouse LLC	Method and apparatus for providing and facilitating interaction with distributed manager information of a network	United States of America	09145050	09/01/1998	6141680	10/31/2000	Grantec
RPX Clearinghouse LLC	Touch-screen input device	United States of America	09146232	09/03/1998	6271835	08/07/2001	Granteo
RPX Clearinghouse LLC	QAM receiver with improved immunity to crosstalk noise	United States of America	09146341	09/02/1998	6289063	09/11/2001	Granteo
RPX Clearinghouse LLC	System for providing stream based and packet based services	United States of America	09148154	09/04/1998	6389034	05/14/2002	Granted
RPX Clearinghouse LLC	Method and apparatus within a switch for performing circular hunts with a window	United States of America	09150314	09/09/1998	6330329	12/11/2001	Granted
RPX Clearinghouse LLC	Echo controller with compensation for variable delay networks	United States of America	09150698	09/10/1998	6324170	11/27/2001	Grantec
RPX Clearinghouse LLC	Method and apparatus for measuring voice grade of service in an IP network	United States of America	09151448	09/11/1998	6512746	01/28/2003	Granted
RPX Clearinghouse LLC	Image reject mixer, circuit, and method for image rejection	United States of America	09152838	09/15/1998	6226509	05/01/2001	Granteo
RPX Clearinghouse LLC	Method and system for dynamic risk assessment of software systems	United States of America	09153021	09/15/1998	6219805	04/17/2001	Grante
RPX Clearinghouse LLC	Wireline modem, communication system and method of setting- up such	United States of America	09153393	09/15/1998	5991269	11/23/1999	Granteo
RPX Clearinghouse LLC	Method and apparatus for MSS spoofing	United States of America	09153585	09/15/1998	6327626	12/04/2001	Granted

RPX	Data packet processing	United	No. 09154628	09/17/1998	6393026	05/21/2002	Status Grante
Clearinghouse LLC	system and method for a router	States of America	09134028	09/1//1996	0373020	03/21/2002	Granice
RPX	Charge transfer circuit	United	09157234	09/18/1998	6563539	05/13/2003	Grante
Clearinghouse LLC	for use in imaging systems	States of America					
RPX	Transit trunk	United	09158855	09/23/1998	6282194	08/28/2001	Grante
Clearinghouse LC	subnetwork system	States of America					
RPX Clearinghouse	Method of speech recognition	United States of	09161588	09/28/1998	6246980	06/12/2001	Grante
LC	26.4.1.01	America	00161500	00/20/1000	6120007	10/21/2000	<u> </u>
RPX Clearinghouse	Method of learning in a speech recognition	United States of America	09161589	09/28/1998	6138097	10/24/2000	Grante
LC RPX	system  Photonic crystal	United	09165053	10/01/1998	6175671	01/16/2001	Grante
Clearinghouse LC	waveguide arrays	States of America	09103033	10/01/1998	01/30/1	01/10/2001	Grance
RPX	Alignment of tirks	United	09165120	10/02/1998	6295540	09/25/2001	Grante
Clearinghouse LC	using network manager	States of America					
RPX	Method and apparatus	United	09165189	10/02/1998	6822961	11/23/2004	Grante
Clearinghouse LC	for reduction of call setup rate in an ATM	States of America					
RPX	network  Custom administrator	United	09165507	10/02/1998	6754702	06/22/2004	Grante
Clearinghouse LC	views of management objects	States of America	09103307	10/02/1770	0734702	00/22/2004	Granic
RPX	Role based	United	09165508	10/02/1998	6539021	03/25/2003	Grante
Clearinghouse LLC	management independent of the hardware topology	States of America					
RPX	Dynamic presentation	United	09165509	10/02/1998	6101539	08/08/2000	Grante
Clearinghouse LLC	of management objectives based on administrator privileges	States of America					
RPX	Efficient recovery of	United	09167746	10/07/1998	6484206	11/19/2002	Grante
Clearinghouse LC	multiple connections in a communication	States of America	05107740	10/07/1990	0101200	11/15/2002	Grance
	network						
RPX	System for translating	United States of	09167792	10/07/1998	6597704	07/22/2003	Grante
Clearinghouse LLC	a message from a first transmission protocol to a second	States of America					
	transmission protocol						
RPX Clearinghouse	Translator memory management system	United States of America	09167811	10/07/1998	6311222	10/30/2001	Grante
LLC RPX	Establishing and	United	09167839	10/07/1998	6320874	11/20/2001	Grante
Clearinghouse LLC	terminating and terminating connections in a mixed	States of America	0310/033	10/07/1336	0320074	11/20/2001	Giante
	protocol network						
RPX	Connection	United	09167916	10/07/1998	6226676	05/01/2001	Grante
Clearinghouse LC	establishment and termination in a mixed protocol network	States of America					
RPX	Error recovery in a	United	09167950	10/07/1998	6618359	09/09/2003	Grante
Clearinghouse LC	mixed protocol networks	States of America	55 157,500	10,0,,100	332333	55, 55, 25, 55	Ciuii
RPX Clearinghouse	Surface mount EMI gasket filter	United States of	09168928	10/09/1998	6037846	03/14/2000	Grante

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Spectrum yield management in a wireless communication system	United States of America	09169022	10/08/1998	6275695	08/14/2001	Granted
RPX Clearinghouse LLC	Virtual port scheduler	United States of America	09170973	10/14/1998	6438132	08/20/2002	Granted
RPX Clearinghouse LLC	Multiple network address resolution	United States of America	09170974	10/14/1998	6212185	04/03/2001	Granted
RPX Clearinghouse LLC	Telephony system and method of signalling	United States of America	09172996	10/16/1998	6381246	04/30/2002	Granted
RPX Clearinghouse LLC	Method of provisioning nodes within a communications network	United States of America	09172997	10/16/1998	6370151	04/09/2002	Granted
RPX Clearinghouse LLC	Air flow distribution device for shelf-based circuit cards	United States of America	09175620	10/20/1998	5995368	11/30/1999	Granted
RPX Clearinghouse LLC	Methods and systems for providing an absent addressing service to customers in a communications network	United States of America	09176484	10/21/1998	6363430	03/26/2002	Granted
RPX Clearinghouse LLC	Web based GUI server and method for a telecommunications node	United States of America	09177609	10/23/1998	6323881	11/27/2001	Granted
RPX Clearinghouse LLC	Communication network utilizing autonomous servers to establish a communication session	United States of America	09181823	10/29/1998	7027430	04/11/2006	Granted
RPX Clearinghouse LLC	Allophonic text-to- speech generator	United States of America	09183002	10/30/1998	6148285	11/14/2000	Granted
RPX Clearinghouse LLC	Method and apparatus for automatic call setup in different network domains	United States of America	09184030	11/02/1998	6240449	05/29/2001	Granted
RPX Clearinghouse LLC	Integration of stimulus signalling protocol communication systems and message protocol communication systems	United States of America	09185361	11/03/1998	6470020	10/22/2002	Granted
RPX Clearinghouse LLC	Line testing method and apparatus therefor	United States of America	09185390	11/03/1998	6373923	04/16/2002	Granted
RPX Clearinghouse LLC	Enhanced network subscriber service (ENSS)	United States of America	09185492	11/03/1998	6327344	12/04/2001	Granted
RPX Clearinghouse LLC	ABR flow control using single bit congestion indication and wavelet transform filtering	United States of America	09185635	11/04/1998	6584111	06/24/2003	Granted
RPX Clearinghouse	Optical amplifier gain control	United States of	09185932	11/04/1998	6166850	12/26/2000	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
LLC		America					
RPX	Device which reduces	United	09186643	11/06/1998	6480603	11/12/2002	Granted
Clearinghouse	central office battery	States of					
LLC	current during modem	America					
	connections			11/05/11000		0.010.510.00	
RPX	Multimedia channel	United	09187975	11/06/1998	6430176	08/06/2002	Granted
Clearinghouse	management through	States of					
LLC	PSTN signaling	America	0010000	11/10/1000	6200020	05/14/2002	C . 1
RPX	Local area network	United	09188297	11/10/1998	6389029	05/14/2002	Granted
Clearinghouse	incorporating universal	States of America					
LLC	serial bus protocol		00100605	11/10/1000	(201210	0.4/20/2002	C
RPX	Channel integrity in a	United States of	09189605	11/10/1998	6381219	04/30/2002	Granted
Clearinghouse	voice-on-ATM	States of America					
LLC	network		00100710	11/00/1000	6210215	10/20/2001	C
RPX	Reworkable laser	United	09189619	11/09/1998	6310315	10/30/2001	Granted
Clearinghouse	welding process	States of America					
LLC			00100001	11/12/1200	6500.605	0.0 / 1.0 / 0.0 0.0	G . 1
RPX	Managing internet	United	09190081	11/12/1998	6522627	02/18/2003	Granted
Clearinghouse	protocol connection	States of					
LLC	oriented services	America	00400000	11/12/1200		0.4.14.19.00.0	
RPX	Voice over internet	United	09190082	11/12/1998	6507577	01/14/2003	Granted
Clearinghouse	protocol network	States of					
LLC	architecture	America					
RPX	Automatic test	United	09190292	11/13/1998	6256760	07/03/2001	Granted
Clearinghouse	equipment scan test	States of					
LLC	enhancement	America					
RPX	Extended internet	United	09191142	11/13/1998	6493349	12/10/2002	Granted
Clearinghouse	protocol virtual private	States of					
LLC	network architectures	America					
RPX	Internet protocol	United	09191845	11/13/1998	6205488	03/20/2001	Granted
Clearinghouse	virtual private network	States of					
LLC	realization using multi-	America					
	protocol label						
	switching tunnels						
RPX	Polarization	United	09193753	11/17/1998	6337755	01/08/2002	Granted
Clearinghouse	independent all-optical	States of					
LLC	regenerators	America					
RPX	Tools for wireless	United	09195556	11/19/1998	6336035	01/01/2002	Granted
Clearinghouse	network planning	States of					
LLC		America					
RPX	Method and apparatus	United	09195573	11/18/1998	6608816	08/19/2003	Granted
Clearinghouse	for providing	States of					
LLC	differentiated services	America					
	using a multi-level						
	queuing mechanism						
RPX	Automated	United	09195774	11/18/1998	6526135	02/25/2003	Granted
Clearinghouse	competitive business	States of					
LLC	call distribution	America					
	(ACBCD) system						
RPX	Communication	United	09196344	11/19/1998	6480507	11/12/2002	Granted
Clearinghouse	protocol stack	States of					
LLC	apparatus and method	America					
	of implementing same						
RPX	Personal mobility and	United	09198063	11/23/1998	6161008	12/12/2000	Granted
Clearinghouse	communication	States of					
LLC	termination for users	America					
	operating in a plurality						
	of heterogeneous						
	networks						
	Data error correction	United	09200436	11/27/1998	6460154	10/01/2002	Granted
RPX							
RPX Clearinghouse	system	States of	0.7 2.00 1.00		0.0020.		

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Method and system for website overview	United States of America	09201875	11/30/1998	6344851	02/05/2002	Granted
RPX Clearinghouse LLC	Voice-and-fax-over IP dialing plan	United States of America	09201997	12/01/1998	6463053	10/08/2002	Granted
RPX Clearinghouse LLC	Load coil device	United States of America	09204263	12/03/1998	6546100	04/08/2003	Granted
RPX Clearinghouse LLC	Apparatus and method for limiting unauthorized access to a network multicast	United States of America	09204930	12/03/1998	6587943	07/01/2003	Granted
RPX Clearinghouse LLC	System and method for providing desired service policies to subscribers accessing the internet	United States of America	09205041	12/03/1998	6466976	10/15/2002	Granted
RPX Clearinghouse LLC	Digital signal framing systems and methods	United States of America	09207250	12/09/1998	6246736	06/12/2001	Granted
RPX Clearinghouse LLC	EMI shield/ gasket enclosure	United States of America	09207251	12/09/1998	6137051	10/24/2000	Granted
RPX Clearinghouse LLC	Digital signal transmitter and receiver using source based reference logic levels	United States of America	09207255	12/09/1998	6184717	02/06/2001	Granted
RPX Clearinghouse LLC	Apparatus and method of PSTN based network roaming and SCP based subscriber management for internet telephony systems	United States of America	09207938	12/09/1998	6519242	02/11/2003	Granted
RPX Clearinghouse LLC	QoS-oriented one-to- all route selection method for communication networks	United States of America	09208980	12/11/1998	6301244	10/09/2001	Granted
RPX Clearinghouse LLC	Method and apparatus for implementing customer group functionality in a wireless environment	United States of America	09209126	12/10/1998	6611684	08/26/2003	Granted
RPX Clearinghouse LLC	Explicit rate computation for flow control in compute networks	United States of America	09209273	12/11/1998	6549517	04/15/2003	Granted
RPX Clearinghouse LLC	Calling party identification authentication and routing in response thereto	United States of America	09209681	12/11/1998	6327347	12/04/2001	Granted
RPX Clearinghouse LLC	Line interface module	United States of America	09209759	12/11/1998	6061241	05/09/2000	Granted
RPX Clearinghouse LLC	Method and apparatus for high-speed data transmission bus entrainment	United States of America	09210536	12/14/1998	6282592	08/28/2001	Granted
RPX	Method and apparatus	United	09211209	12/14/1998	6272674	08/07/2001	Granted

Clearinghouse	for loading a Java	States of					
LLC	application program	America	00211001	12/15/1000	(252(20	02/05/2002	Cuontad
RPX Clearinghouse LLC	Apparatus, method and system having reduced power consumption in a multi-carrier wireline environment	United States of America	09211881	12/15/1998	6353628	03/05/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for conservative link selection	United States of America	09212429	12/16/1998	6477582	11/05/2002	Granted
RPX Clearinghouse LLC	Monitor for the control of multimedia services in networks	United States of America	09212650	12/16/1998	6529475	03/04/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for completing telephone calls between subnetworks	United States of America	09213769	12/17/1998	6757285	06/29/2004	Granted
RPX Clearinghouse LLC	Method and apparatus for automatic callback in a telecommunication system	United States of America	09215260	12/18/1998	6339640	01/15/2002	Granted
RPX Clearinghouse LLC	Supertrunking for packet switching	United States of America	09215262	12/18/1998	6587431	07/01/2003	Granted
RPX Clearinghouse LLC	Flow-level demultiplexing within routers	United States of America	09215376	12/18/1998	6510135	01/21/2003	Granted
RPX Clearinghouse LLC	Scheduling technique for delayed queue service	United States of America	09215377	12/18/1998	6574230	06/03/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for communicating a clock signal in a soliton optical transmission system	United States of America	09215547	12/18/1998	6486990	11/26/2002	Granted
RPX Clearinghouse LLC	CDMA frequency planning for fixed wireless application	United States of America	09216674	12/18/1998	6560459	05/06/2003	Granted
RPX Clearinghouse LLC	Method and system in a computer-based system for providing access to services associated with different access points	United States of America	09216935	12/21/1998	6269395	07/31/2001	Granted
RPX Clearinghouse LLC	Line interface battery feed arrangements with PTC resistors	United States of America	09216975	12/21/1998	6507654	01/14/2003	Granted
RPX Clearinghouse LLC	Method of virtual circuit reconnection without loss of call session	United States of America	09216992	12/21/1998	6456626	09/24/2002	Granted
RPX Clearinghouse LLC	Non-contact coupling system	United States of America	09217058	12/21/1998	6111476	08/29/2000	Granted
RPX Clearinghouse LLC	Universal optical network unit for use in narrowband and broadband access networks	United States of America	09217898	12/22/1998	6519255	02/11/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for interfacing a manager and a plant	United States of America	09217910	12/22/1998	6477539	11/05/2002	Granted
RPX	Frame alignment and	United	09218054	12/22/1998	6456654	09/24/2002	Granted

Clearinghouse LLC	time domain equalization for communications systems using multicarrier	States of America					
RPX Clearinghouse LLC	modulation  Conferencing over LAN/WAN using a hybrid client/server configuration	United States of America	09218142	12/22/1998	6327276	12/04/2001	Granted
RPX Clearinghouse LLC	Delay fault testing with IEEE 1149.1	United States of America	09218427	12/22/1998	6286119	09/04/2001	Granted
RPX Clearinghouse LLC	Conferencing arrangement for use with wireless terminals	United States of America	09218429	12/22/1998	6522633	02/18/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for identifying and removing unused software procedures	United States of America	09218814	12/22/1998	6247175	06/12/2001	Granted
RPX Clearinghouse LLC	Symbol alignment method	United States of America	09219005	12/23/1998	6353636	03/05/2002	Granted
RPX Clearinghouse LLC	System and method for ATM-FR interworking of SVC signalling	United States of America	09219317	12/23/1998	6526063	02/25/2003	Granted
RPX Clearinghouse LLC	Multiple quality of service asynchronous transfer mode-frame relay interworking function and method	United States of America	09219437	12/23/1998	6298059	10/02/2001	Granted
RPX Clearinghouse LLC	Short message park and page system and method	United States of America	09219557	12/23/1998	6327478	12/04/2001	Granted
RPX Clearinghouse LLC	Automated short message attendant	United States of America	09219696	12/23/1998	6507735	01/14/2003	Granted
RPX Clearinghouse LLC	Wireless multi-site networking using signaling and voice- over-IP	United States of America	09220232	12/23/1998	6560223	05/06/2003	Granted
RPX Clearinghouse LLC	Scalable gatekeepers in an internet telephony system and a method of operation	United States of America	09220549	12/23/1998	6519249	02/11/2003	Granted
RPX Clearinghouse LLC	Telephony call control using a data network and a graphical user interface and exchanging datagrams between parties to a telephone call	United States of America	09220860	12/28/1998	6868140	03/15/2005	Granted
RPX Clearinghouse LLC	Graphical message notification	United States of America	09220962	12/28/1998	6888927	05/03/2005	Granted
RPX Clearinghouse LLC	Operating system extension to provide security for web-based public access services	United States of America	09220993	12/28/1998	7171686	01/30/2007	Granted
RPX Clearinghouse LLC	Method for ordering subscriber records of wireless communication	United States of America	09221357	12/28/1998	6224477	05/01/2001	Granted

	networks	***************************************					
RPX Clearinghouse LLC	Mobile access to a PBX via a TLDN	United States of America	09221382	12/28/1998	6256512	07/03/2001	Granted
RPX Clearinghouse LLC	ATM connection accelerator for use in communication networks	United States of America	09221794	12/28/1998	6483836	11/19/2002	Granted
RPX Clearinghouse LLC	Variable rate optional security measures method and apparatus for wireless communications network	United States of America	09221909	12/28/1998	6014558	01/11/2000	Granted
RPX Clearinghouse LLC	Method and apparatus for connecting a home network to the internet	United States of America	09222835	12/30/1998	6584096	06/24/2003	Granted
RPX Clearinghouse LLC	Cross-media notifications for e- commerce	United States of America	09222926	12/30/1998	6330550	12/11/2001	Granted
RPX Clearinghouse LLC	Method and apparatus for exchanging data between transactional and non-transactional input/output systems in a multi-processing, shared memory environment	United States of America	09223004	12/30/1998	6557056	04/29/2003	Granted
RPX Clearinghouse LLC	SVC signaling system and method	United States of America	09223047	12/30/1998	6597689	07/22/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for time-domain equalization in FDM- based discrete multi- tone modems	United States of America	09223817	12/31/1998	6404806	06/11/2002	Granted
RPX Clearinghouse LLC	Multi-threaded, multi- cast switch	United States of America	09223836	12/31/1998	6473428	10/29/2002	Granted
RPX Clearinghouse LLC	Abstract interface for media and telephony services	United States of America	09223842	12/31/1998	6445776	09/03/2002	Granted
RPX Clearinghouse LLC	Wireless communication system in which a termination access type is identified to a serving mobile switching center	United States of America	09223892	12/31/1998	6278874	08/21/2001	Granted
RPX Clearinghouse LLC	Data network for real time information	United States of America	09223991	12/31/1998	6556561	04/29/2003	Granted
RPX Clearinghouse LLC	Packet voice telephony system and method	United States of America	09224548	12/31/1998	6449269	09/10/2002	Granted
RPX Clearinghouse LLC	Digital multitone communication trunk	United States of America	09224841	12/31/1998	6262972	07/17/2001	Granted
RPX Clearinghouse LLC	Exchanging a secret over an unreliable network	United States of America	09227237	01/08/1999	6182214	01/30/2001	Granted
RPX Clearinghouse LLC	Steering of internet access to sponsors	United States of America	09235869	01/22/1999	6425010	07/23/2002	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Method and system for redirecting web page requests on a TCP/IP network	United States of America	09236159	01/22/1999	6438125	08/20/2002	Granted
RPX Clearinghouse LLC	Integrated telecommunications services for mobile and landline telephony service subscriber	United States of America	09237750	01/26/1999	6496578	12/17/2002	Granted
RPX Clearinghouse LLC	Fault-tolerant java virtual machine	United States of America	09239225	01/30/1999	6421739	07/16/2002	Granted
RPX Clearinghouse LLC	Internet protocol (IP) telecommunication	United States of America	09247915	02/11/1999	6556565	04/29/2003	Granted
RPX Clearinghouse LLC	System and method for providing service control to a single telephone end terminal from multiple service providers	United States of America	09249051	02/12/1999	6657992	12/02/2003	Granted
RPX Clearinghouse LLC	Network resource conservation system	United States of America	09249696	02/12/1999	6636508	10/21/2003	Granted
RPX Clearinghouse LLC	Compact wavelength- independent wavelength-locker for absolute wavelength stability of a laser diode	United States of America	09250879	02/16/1999	6385217	05/07/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for enabling a view of data across a database	United States of America	09253103	02/19/1999	6330555	12/11/2001	Granted
RPX Clearinghouse LLC	Detecting and locating a misbehaving device in a network domain	United States of America	09256700	02/24/1999	6425004	07/23/2002	Granted
RPX Clearinghouse LLC	Establishing shortcuts in a Multiprotocol-over-ATM system	United States of America	09257075	02/24/1999	6671279	12/30/2003	Granted
RPX Clearinghouse LLC	Reducing convergence time by a protocol independent multicast (PIM) router	United States of America	09257866	02/25/1999	6631420	10/07/2003	Granted
RPX Clearinghouse LLC	Displaying computer interfaces in multiple languages	United States of America	09264949	03/09/1999	6559861	05/06/2003	Granted
RPX Clearinghouse LLC	Virtual private networks and methods for their operation	United States of America	09270733	03/16/1999	6937574	08/30/2005	Granted
RPX Clearinghouse LLC	Temperature- compensated optical filter assemblies and related methods	United States of America	09272112	03/19/1999	6384978	05/07/2002	Granted
RPX Clearinghouse LLC	Network address translation in a network having multiple overlapping address domains	United States of America	09274940	03/23/1999	6888837	05/03/2005	Granted
RPX Clearinghouse LLC	Domain name resolution in a network having multiple overlapping address domains	United States of America	09274944	03/23/1999	6493765	12/10/2002	Granted

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RPX Clearinghouse LLC	Fault tolerance for network accounting architecture	United States of America	No. 09276056	03/25/1999	7167860	01/23/2007	Status Granted
RPX Clearinghouse LLC	Service management	United States of America	09276452	03/25/1999	6446200	09/03/2002	Granted
RPX Clearinghouse LLC	Tunable external cavity laser	United States of America	09281404	03/30/1999	6301274	10/09/2001	Granted
RPX Clearinghouse LLC	Optical switching and attenuation systems and methods therefor	United States of America	09281406	03/30/1999	6404969	06/11/2002	Granted
RPX Clearinghouse LLC	Power line communications system and method of operation thereof	United States of America	09281490	03/30/1999	6522626	02/18/2003	Granted
RPX Clearinghouse LLC	System optimized always on dynamic integrated services digital network	United States of America	09281503	03/30/1999	6493336	12/10/2002	Granted
RPX Clearinghouse LLC	Tool for monitoring health of networks	United States of America	09281945	03/31/1999	6446123	09/03/2002	Granted
RPX Clearinghouse LLC	Managing a virtual private network	United States of America	09285424	04/02/1999	6765591	07/20/2004	Granted
RPX Clearinghouse LLC	Self-configuring distributed switch	United States of America	09286431	04/06/1999	6570872	05/27/2003	Granted
RPX Clearinghouse LLC	Routes and paths management	United States of America	09288565	04/09/1999	6570867	05/27/2003	Granted
RPX Clearinghouse LLC	Method and apparatus providing a cable modem management and provisioning system	United States of America	09289248	04/09/1999	6487592	11/26/2002	Granted
RPX Clearinghouse LLC	Optical partial regeneration of solitons	United States of America	09291186	04/14/1999	6222669	04/24/2001	Granted
RPX Clearinghouse LLC	Telecommunications system	United States of America	09294708	04/19/1999	6587469	07/01/2003	Granted
RPX Clearinghouse LLC	Scheduler implementing weighted fair queuing by a weight limited first in-first out methodology	United States of America	09295215	04/21/1999	6501762	12/31/2002	Granted
RPX Clearinghouse LLC	Collision detection on a differential bus	United States of America	09295652	04/21/1999	6493351	12/10/2002	Granted
RPX Clearinghouse LLC	Collision detection on a differential bus	United States of America	09295714	04/21/1999	6625163	09/23/2003	Granted
RPX Clearinghouse LLC	Internet service provider call redirection	United States of America	09300130	04/27/1999	6459783	10/01/2002	Granted
RPX Clearinghouse LLC	System and method for rerouting data calls to internet service provider via lowest access point in a	United States of America	09300131	04/27/1999	6327358	12/04/2001	Granted

			No.				Status
DDW	telephone network	TT '4 1	00201122	0.5 (0.2 /1.0.0.0	6201.105	10/00/2001	<u> </u>
RPX	Dielectric optical filter	United States of	09304438	05/03/1999	6301407	10/09/2001	Granted
Clearinghouse	network	States of America					
LLC RPX	System and method to	United	09305149	05/04/1999	6397248	05/28/2002	Granted
Clearinghouse	discover end node	States of	09303149	03/04/1999	039/240	03/28/2002	Graniec
LLC	physical connectivity	America					
	to networking devices						
RPX	Integrated signalling	United	09305633	05/05/1999	6549530	04/15/2003	Granted
Clearinghouse	for asynchronous	States of					
LLC	networks	America					
RPX	Telephony and data	United	09307356	05/07/1999	7068641	06/27/2006	Granted
Clearinghouse	network services at a	States of					
LLC	telephone	America					
RPX	Security association	United	09307452	05/07/1999	6950932	09/27/2005	Granted
Clearinghouse	mediator for java-	States of					
LLC	enabled devices	America					
RPX	Memory management	United	09309471	05/10/1999	6601150	07/29/2003	Granted
Clearinghouse	technique for	States of America					
LLC	maintaining packet	America					
	order in a packet processing system						
RPX	System, device, and	United	09309530	05/11/1999	6614791	09/02/2003	Granted
Clearinghouse	method for supporting	States of	07307330	03/11/1777	0014771	05/02/2003	Granicu
LLC	virtual private	America					
LLC	networks						
RPX	Testing a mobile	United	09312950	05/17/1999	6272337	08/07/2001	Granted
Clearinghouse	communications	States of					
LLC	system	America					
RPX	Method and apparatus	United	09314563	05/19/1999	6647424	11/11/2003	Granted
Clearinghouse	for discarding data	States of					
LLC	packets	America					
RPX	Method and apparatus	United	09314567	05/19/1999	6621829	09/16/2003	Granted
Clearinghouse	for the prioritization of	States of					
LLC	control plane traffic in	America					
DDV	a router	TT 14 1	00215042	0.5 (20 (1.000	6410472	07/00/2002	- C . 1
RPX	Multimedia clent and	United States of	09315042	05/20/1999	6418473	07/09/2002	Granted
Clearinghouse LLC	server	America					
RPX	Method and apparatus	United	09320585	05/27/1999	6614805	09/02/2003	Granted
Clearinghouse	for media access	States of	09320363	03/2//1999	0014603	09/02/2003	Granicu
LLC	control for packet	America					
	transmission over a						
	buffer insertion ring						
RPX	Method of assigning	United	09321864	05/28/1999	6411798	06/25/2002	Granted
Clearinghouse	frequencies for use	States of					
LLC	during wireless system	America					
	drive testing						
RPX	Integrated data centric	United	09323779	06/01/1999	6522641	02/18/2003	Granted
Clearinghouse	network (IDCN)	States of					
LLC		America					
RPX	Thread memory	United	09326007	06/04/1999	6842901	01/11/2005	Granted
Clearinghouse	reclamation	States of					
LLC	3.6.41	America	00226672	06/04/1600	6005005	00/25/2001	C
RPX	Method and apparatus	United States of	09326079	06/04/1999	6295396	09/25/2001	Granted
Clearinghouse	for higher-order	States of America					
LLC	chromatic dispersion	America					
RPX	compensation  Methods and systems	United	09327049	06/07/1999	6591301	07/08/2003	Granted
Clearinghouse	for controlling network	States of	0734/049	00/0//1333	0591501	07/06/2003	Granica
	2						
LLC	gatekeeper message	America					

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RPX Clearinghouse LLC	Communication system, article and method of configuring and establishing a connection therein	United States of America	09327561	06/08/1999	6449354	09/10/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for reducing load distribution delay in an internet protocol switch	United States of America	09335203	06/17/1999	6587456	07/01/2003	Granted
RPX Clearinghouse LLC	Analog gain control adjustment using a probabilistic algorithm	United States of America	09335836	06/18/1999	6259391	07/10/2001	Granted
RPX Clearinghouse LLC	Cell based data transmission method	United States of America	09337069	06/21/1999	6560206	05/06/2003	Granted
RPX Clearinghouse LLC	Network fault prediction and proactive maintenance system	United States of America	09337209	06/08/1999	6353902	03/05/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for displaying and navigating containment hierarchies	United States of America	09337536	06/22/1999	6691282	02/10/2004	Granted
RPX Clearinghouse LLC	Method and apparatus for optical frequency demodulation of an optical signal using interferometry	United States of America	09338530	06/23/1999	6271959	08/07/2001	Granted
RPX Clearinghouse LLC	Dispersion compensation	United States of America	09338693	06/23/1999	6438287	08/20/2002	Granted
RPX Clearinghouse LLC	System, device, and method for address management in a distributed communication environment	United States of America	09340477	06/30/1999	6597700	07/22/2003	Granted
RPX Clearinghouse LLC	Service selection on IP access networks	United States of America	09342362	06/29/1999	6577627	06/10/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for managing communications between nodes in a bidirectional ring network	United States of America	09345453	07/01/1999	6650618	11/18/2003	Granted
RPX Clearinghouse LLC	Multi-panel route monitoring graphical user interface, system and method	United States of America	09345471	06/30/1999	6654803	11/25/2003	Granted
RPX Clearinghouse LLC	Route monitoring graphical user interface, system and method	United States of America	09345472	06/30/1999	6487604	11/26/2002	Granted
RPX Clearinghouse LLC	Processing communication traffic	United States of America	09346322	07/02/1999	6574224	06/03/2003	Granted
RPX Clearinghouse LLC	Asynchronous transfer mode adaptation arrangements	United States of America	09346323	07/02/1999	6519261	02/11/2003	Granted
RPX	Automatic frequency	United	09351342	07/12/1999	6480718	11/12/2002	Granted

CI : I	1 1	C	No.				Status
Clearinghouse LLC	planning for a wireless network	States of America					
RPX	System, method, and	United	09354372	07/14/1999	6584193	06/24/2003	Granted
Clearinghouse	computer program	States of					
LLC	product for network	America					
RPX	telephone queuing Supporting multiple	United	09354651	07/16/1999	6882643	04/19/2005	Granted
Clearinghouse	services in label	States of	09354051	07/10/1999	0002043	04/19/2003	Granice
LLC	switched networks	America					
RPX	System and method for	United	09357250	07/20/1999	7099929	08/29/2006	Grantec
Clearinghouse	transferring	States of					
LLC	information in a	America					
	hypertext transfer protocol based system						
RPX	Polarization mode	United	09358977	07/22/1999	6515778	02/04/2003	Grantec
Clearinghouse	dispersion	States of	0,550,7,7	0112212999	0313770	02/01/2003	Granice
LLC	compensation	America					
RPX	Enhanced call delivery	United	09359818	07/23/1999	6560457	05/06/2003	Granted
Clearinghouse	system for	States of America					
LLC	interoperability between circuit	America					
	switched and packet						
	switched networks						
RPX	Method and system for	United	09361099	07/26/1999	6549621	04/15/2003	Granteo
Clearinghouse	integrating a computer	States of					
LLC	and a telephone	America	00261510	07/07/1000	(53500)	02/10/2002	<u> </u>
RPX Clearinghouse	System for controlling the effect of	United States of	09361540	07/27/1999	6535906	03/18/2003	Grante
LLC	transmitting a	America					
	document across a						
	packet based network						
RPX	Resetting surge	United	09361854	07/27/1999	6563926	05/13/2003	Grantec
Clearinghouse	protection in telephone	States of America					
LLC RPX	line interface circuits  Circuit board with	United	09362515	07/28/1999	6479761	11/12/2002	Granted
Clearinghouse	reduced noise	States of	09302313	07/28/1999	04/9/01	11/12/2002	Granice
LLC	architecture	America					
RPX	Optical switch and	United	09362886	07/29/1999	6529301	03/04/2003	Granted
Clearinghouse	protocols for use	States of					
LLC	therewith	America	00264122	0.7/20/1000	6.555.650	0.5/1.0/2.002	
RPX Clearinghouse	Method of setting-up and controlling	United States of	09364132	07/30/1999	6577650	06/10/2003	Granted
Clearinghouse LLC	and controlling synchronization within	America					
	a modem						
RPX	Geographically	United	09364792	07/30/1999	6647430	11/11/2003	Granted
Clearinghouse	separated totem rings	States of					
LLC	26.1.1.0.11	America	2225222	00/02/4000	5775710	0.410.010.00	
RPX Clearinghouse	Method of allocating resources in a	United States of	09368275	08/03/1999	6556548	04/29/2003	Granteo
LLC	resources in a telecommunications	America					
-20	network						
RPX	Derivation of	United	09368276	08/03/1999	6628612	09/30/2003	Granteo
Clearinghouse	equivalent bandwidth	States of					
LC	of an information flow	America	00000000	00/00/2000	6406=0.5	10/0/17/20	
RPX	Method of allocating	United States of	09368280	08/03/1999	6498786	12/24/2002	Granteo
Clearinghouse LLC	resources in a telecommunications	America					
-LC	network						
RPX	System and method for	United	09369944	08/06/1999	6578085	06/10/2003	Grante
Clearinghouse	route optimization in a	States of					
LLC	wireless internet	America					
nnv.	protocol network	TT14 *	00251501	00/10/1000	CE01410	04/12/2001	<u> </u>
RPX	Recursive	United	09371781	08/10/1999	6721410	04/13/2004	Grante

Clearinghouse	identification of	States of					
LC	individuals for casual collaborative conferencing	America					
RPX Clearinghouse LLC	Jitter buffer management	United States of America	09374528	08/16/1999	6658027	12/02/2003	Granteo
PX Clearinghouse LC	Lifeline telephony provision for voice over digital subscriber line	United States of America	09374805	08/16/1999	6272209	08/07/2001	Granteo
PX Elearinghouse LC	Continuity of voice carried over DSL during power failure	United States of America	09374806	08/16/1999	6647117	11/11/2003	Granteo
PX Elearinghouse LC	System and method for authentication of caller identification	United States of America	09375396	08/17/1999	6324271	11/27/2001	Granted
PX Elearinghouse LC	Voice over digital subscriber line call redirection for lifeline service	United States of America	09375709	08/17/1999	6400803	06/04/2002	Grantec
PX Elearinghouse LC	Packet communications system and method	United States of America	09375710	08/17/1999	7012922	03/14/2006	Grante
PX Clearinghouse LC	VODSL service provision	United States of America	09375758	08/18/1999	6526058	02/25/2003	Grante
PX learinghouse LC	Enhanced VoDSL service provision	United States of America	09375759	08/18/1999	6522647	02/18/2003	Grante
PX Elearinghouse LC	Network data routing protection cycles for automatic protection switching	United States of America	09378141	08/20/1999	6535481	03/18/2003	Grante
PX Elearinghouse LC	Frequency reuse in millimeter-wave point-to-multipoint radio systems	United States of America	09382500	08/25/1999	6421542	07/16/2002	Grante
RPX Clearinghouse LLC	Chromatic dispersion compensation	United States of America	09385939	08/30/1999	6363187	03/26/2002	Grante
PX Clearinghouse LC	Constraint-based route selection using biased cost	United States of America	09387036	08/31/1999	6363319	03/26/2002	Grante
PX Clearinghouse LC	Mini-backplane "T" assembly	United States of America	09388366	09/01/1999	6243273	06/05/2001	Grante
PX learinghouse LC	Micromachined members coupled for relative rotation by hinges	United States of America	09388772	09/02/1999	6392220	05/21/2002	Grante
PX learinghouse LC	Method and apparatus for optical frequency modulation characterization of laser sources	United States of America	09390214	09/08/1999	6178001	01/23/2001	Grante
PX learinghouse LC	Differentiated services IP quality of services round trip time aware intelligent traffic conditioner in an ingress node of virtual private networks	United States of America	09391418	09/08/1999	6480899	11/12/2002	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	System and method for creating a dynamic data file from collected and	United States of America	09392367	09/08/1999	6449636	09/10/2002	Granted
RPX Clearinghouse LLC	Free space optical interconnect system tolerant to misalignments and method of operation thereof	United States of America	09392534	09/09/1999	6509992	01/21/2003	Granted
RPX Clearinghouse LLC	System, method and graphical user interface for building virtual private networks	United States of America	09396452	09/15/1999	6577327	06/10/2003	Granted
RPX Clearinghouse LLC	Connection integrity monitor for digital selection circuits	United States of America	09397968	09/17/1999	6505310	01/07/2003	Granted
RPX Clearinghouse LLC	Multicast-enabled address resolution protocol (ME-ARP)	United States of America	09398370	09/17/1999	6640251	10/28/2003	Granted
RPX Clearinghouse LLC	Apparatus and method for distributing management keys in a multicast domain	United States of America	09400132	09/21/1999	7269728	09/11/2007	Granted
RPX Clearinghouse LLC	Internet-based telephone call manager	United States of America	09401521	09/22/1999	8189747	05/29/2012	Granted
RPX Clearinghouse LLC	Network fault recovery method and apparatus	United States of America	09401919	09/23/1999	6530032	03/04/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for generating phrasal transcriptions	United States of America	09404797	09/24/1999	6408271	06/18/2002	Granted
RPX Clearinghouse LLC	Method and apparatus of remotely updating firmware of a communication device	United States of America	09405095	09/27/1999	6640334	10/28/2003	Granted
RPX Clearinghouse LLC	Methods for auto- configuring a router on an IP subnet	United States of America	09407915	09/29/1999	7702732	04/20/2010	Granted
RPX Clearinghouse LLC	Apparatus and method of configuring a network device	United States of America	09408380	09/29/1999	6684241	01/27/2004	Granted
RPX Clearinghouse LLC	Multi-processor data synchronization method and apparatus	United States of America	09408619	09/30/1999	6345282	02/05/2002	Granted
RPX Clearinghouse LLC	Frequency reuse scheme for point to multipoint radio communication	United States of America	09411294	10/04/1999	6542746	04/01/2003	Granted
RPX Clearinghouse LLC	Accounting method and apparatus for communications network	United States of America	09412099	10/04/1999	7092696	08/15/2006	Granted
RPX Clearinghouse LLC	System for tracking the history of channel based network devices	United States of America	09412689	10/05/1999	6662208	12/09/2003	Granted
RPX Clearinghouse LLC	Multi-mode endpoint in a communication network system and methods thereof	United States of America	09414762	10/07/1999	6987756	01/17/2006	Granted
RPX Clearinghouse	Apparatus and method of maintaining timely	United States of	09417155	10/12/1999	6560654	05/06/2003	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
LLC	topology data within a link state routing network	America					
RPX Clearinghouse LLC	Scheduling of variable sized packet data under transfer rate control	United States of America	09417769	10/14/1999	6646986	11/11/2003	Granted
RPX Clearinghouse LLC	Method and system for optimizing wireless communication system performance	United States of America	09420295	10/18/1999	6519452	02/11/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for selecting network entities	United States of America	09420424	10/19/1999	6633312	10/14/2003	Granted
RPX Clearinghouse LLC	Method and system for provisioning network resources for dynamic multicast groups	United States of America	09422646	10/22/1999	6556544	04/29/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for processing calls on a multiprocessor communication system	United States of America	09427711	10/27/1999	6542942	04/01/2003	Granted
RPX Clearinghouse LLC	System and method for remote management of call center operations	United States of America	09428656	10/28/1999	6594470	07/15/2003	Granted
RPX Clearinghouse LLC	Reliable distributed shared memory	United States of America	09429712	10/29/1999	6574749	06/03/2003	Granted
RPX Clearinghouse LLC	Methods and systems for providing access to stored audio data over a network	United States of America	09430045	10/29/1999	7376710	05/20/2008	Granted
RPX Clearinghouse LLC	Methods and systems for building and distributing audio packages	United States of America	09431566	10/29/1999	7308462	12/11/2007	Granted
RPX Clearinghouse LLC	Method and apparatus for accessing an ordered array structure	United States of America	09431994	11/02/1999	6438555	08/20/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for generating multilingual transcription groups	United States of America	09432697	11/02/1999	6549883	04/15/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for alert control on a communications system	United States of America	09434954	11/05/1999	6594354	07/15/2003	Granted
RPX Clearinghouse LLC	Storing information about a telephony session	United States of America	09436563	11/09/1999	6778653	08/17/2004	Granted
RPX Clearinghouse LLC	Method and apparatus for use in speaker verification	United States of America	09436991	11/09/1999	6401063	06/04/2002	Granted
RPX Clearinghouse LLC	System and method to effectively suppress idle fax signals	United States of America	09438813	11/10/1999	6628429	09/30/2003	Granted
RPX Clearinghouse LLC	Multimedia communications in a telecommunications network	United States of America	09445917	06/12/1998	7286488	10/23/2007	Granted
RPX Clearinghouse LLC	Flexible, modular, compact fiber optic switch	United States of America	09446540	12/21/1999	6445844	09/03/2002	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Code division multiple access cable modem	United States of America	09455090	12/06/1999	6647059	11/11/2003	Granted
RPX Clearinghouse LLC	System, device, and method for distributing link state information in a communication network	United States of America	09455955	12/07/1999	8199646	06/12/2012	Granted
RPX Clearinghouse LLC	System and method to implement a packet switch output buffer	United States of America	09460273	12/13/1999	6650651	11/18/2003	Granted
RPX Clearinghouse LLC	Fast path forwarding of link state advertisements using a minimum spanning tree	United States of America	09460321	12/10/1999	6650626	11/18/2003	Granted
RPX Clearinghouse LLC	Fast path forwarding of link state advertisements using multicast addressing	United States of America	09460341	12/10/1999	6606325	08/12/2003	Granted
RPX Clearinghouse LLC	Communication and presence spanning multiple access networks	United States of America	09460780	12/14/1999	6807423	10/19/2004	Granted
RPX Clearinghouse LLC	Independent contact spanning multiple access networks	United States of America	09461119	12/14/1999	7221658	05/22/2007	Granted
RPX Clearinghouse LLC	Client-server network for managing internet protocol voice packets	United States of America	09466619	12/17/1999	6853713	02/08/2005	Granted
RPX Clearinghouse LLC	Directional receiver coupling arrangement with frequency selectivity and gain control for DSL	United States of America	09466663	12/20/1999	6681012	01/20/2004	Granted
RPX Clearinghouse LLC	Distributed optical switching device	United States of America	09470630	12/22/1999	6396969	05/28/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for hierarchical training of speech models for use in speaker verification	United States of America	09470995	12/23/1999	6499012	12/24/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for providing a more efficient use of the total bandwidth capacity in a synchronous optical network	United States of America	09471141	12/23/1999	6616350	09/09/2003	Granted
RPX Clearinghouse LLC	Optical arrayed waveguide grating devices	United States of America	09471439	12/23/1999	6374013	04/16/2002	Granted
RPX Clearinghouse LLC	Optical comb filter	United States of America	09471443	12/23/1999	6301409	10/09/2001	Granted
RPX Clearinghouse LLC	Wireless telephone system and operation method therefor	United States of America	09472449	12/27/1999	6671510	12/30/2003	Granted
RPX Clearinghouse LLC	System and method for providing unified communication services support	United States of America	09472627	12/27/1999	6625258	09/23/2003	Granted
RPX	Text messaging with	United	09472643	12/27/1999	6542586	04/01/2003	Granted

embedded telephony	States of					
action keys	America					
	United	09472668	12/27/1999	6581175	06/17/2003	Grante
	America					
_						
Call features for	United	09472910	12/27/1999	7257217	08/14/2007	Grante
automatic call	States of					
distribution system						
		09473103	12/28/1999	7076559	07/11/2006	Grante
_						
autonomous systems						
Serial interface for a	United	09473723	12/28/1999	6618383	09/09/2003	Grante
broadband	States of					
	America					
	United	09473726	12/28/1999	7933279	04/26/2011	Grante
•		054/3/20	14/40/1999	1333413	04/20/2011	Grante
and method	America					
System and method for	United	09474124	12/29/1999	6577720	06/10/2003	Grante
providing high-speed	States of					
_	America					
•	United	00474202	12/20/1000	7127610	10/24/2006	Grante
		094/4203	12/29/1999	/12/610	10/24/2000	Granic
	America					
between multicast						
domains						
		09474477	12/29/1999	6594703	07/15/2003	Grante
2						
		09474540	12/29/1999	6626589	09/30/2003	Grante
switching	States of					
-	America					
Control for periodic	United	09474541	12/29/1999	6347006	02/12/2002	Grante
optical filter						
Ontical switch		00474543	12/20/1000	6424757	07/23/2002	Grante
_		094/4343	12/29/1999	0424737	07/23/2002	Granic
	America					
Optical switch	United	09474544	12/29/1999	6625340	09/23/2003	Grante
attenuator	States of					
		00455044	10/00/1000	500555	00/01/0004	
		094/5044	12/30/1999	6/95555	09/21/2004	Grante
exchange protocor						
Method of and	United	09475722	12/30/1999	6490592	12/03/2002	Grante
apparatus for	States of					
generating a tree data	America					
11 0						
	United	00/77795	12/21/1000	6659660	12/02/2002	C-ront-
•		024///03	14/31/1999	0008600	12/02/2003	Grante
	America					
for marshaling,						
unmarshaling and						
marking modified data						
	United	00480500	01/10/2000	6363017	03/26/2002	Cuant
Optical amplifier	States of	09460309	01/10/2000	030291/	03/20/2002	Grante
	Apparatus and method of requesting retransmission of a message across a network  Call features for automatic call distribution system  System, device, and method for establishing label switched paths across multiple autonomous systems  Serial interface for a broadband communications network  Voice over packet network arrangement and method  System and method for providing high-speed communications using a public terminal  Apparatus and method of implementing multicast security between multicast domains  Apparatus and method of minimizing internal multicast traffic  Optical packet switching  Control for periodic optical filter  Optical switch alignment apparatus and method  Optical switch attenuator  Encryption key exchange protocol  Method of and apparatus for generating a tree data structure supporting longest match lookup  System and method of automatically modifying source code for marshaling, unmarshaling and	Apparatus and method of requesting retransmission of a message across a network  Call features for automatic call distribution system  System, device, and method for establishing label switched paths across multiple autonomous systems  Serial interface for a broadband communications network  Voice over packet network arrangement and method  System and method for providing high-speed communications using a public terminal  Apparatus and method of implementing multicast security between multicast domains  Apparatus and method of minimizing internal multicast traffic  Optical packet switching  Control for periodic optical filter  Optical switch alignment apparatus and method  Optical switch alignment apparatus and method of america  Optical switch alignment apparatus and method  Optical switch alignment apparatus and method of the states of America  Optical switch alignment apparatus and method of and apparatus for generating a tree data structure supporting longest match lookup  System and method of automatically modifying source code for marshaling unmarshaling and marking modified data objects  America  America  America  United States of America	Apparatus and method of requesting retransmission of a message across a network  Call features for automatic call distribution system  System, device, and method for establishing label switched paths across multiple autonomous systems  Serial interface for a broadband communications network  Voice over packet network arrangement and method for providing high-speed communications using a public terminal  Apparatus and method of implementing multicast domains  Apparatus and method of minimizing internal multicast tdomains  Apparatus and method of minimizing internal multicast tarffic  Optical packet switching  Control for periodic optical filter  Optical switch alignment apparatus and method  Optical switch alignment apparatus and method  Control for periodic optical filter  Coptical switch alignment apparatus and method and method  Optical switch alignment apparatus and method  Optical switch alignment apparatus for generating a tree data structure supporting longest match lookup  System and method of and apparatus for generating a tree data structure supporting longest match lookup  System and method of mand andarking modified data objects  America  America  Optical switch alignment apparatus and method  Optical switch alignment apparatus for generating a tree data structure supporting longest match lookup  System and method of and andarking modified data objects	Action keys	Apparatus and method of requesting retrainshission of a message across a network  Call features for automatic call distribution system System, device, and method for establishing label switched paths across multiple autonomous systems  Serial interface for a broadband communications network  Voice over packet network arrangement spiroble terminal Apparatus and method of implementing multicast security between multicast domains  Apparatus and method of minimizing internal multicast traffic  Optical packet switching  Control for periodic optical filter  Coptical switch alignment apparatus for generating and method of exchange protocol  Encryption key exchange protocol  Encryption key exchange protocol  System and method of and apparatus for generating and marking modified data objects  Woise over packet network arrangement apparatus for generating at the data states of America  Diffical switch alignment apparatus for generating a tree data structure supporting longest match lookup  System and method of mand apparatus for generating a tree data structure supporting longest match lookup  System and method of modifying source code for marshaling, unmarshaling and marking modified data objects  America  Optical source over packet with a part of generating a tree data structure supporting longest match lookup  System and method of amad apparatus for generating a tree data structure supporting longest match lookup  System and method of modifying source code for marshaling, unmarshaling and marking modified data objects  America  Optical source over packet with a part of generating a tree data structure supporting longest match lookup  System and method of for generating a tree data structure supporting longest match lookup  System and method of for marshaling, unmarshaling and marking modified data objects  System and method of modified data objects  System and method of modified data objects  America  Optical switch and the packet states of America  System and method of and and apparatus for system and method of and a	Apparatus and method of requesting retransmission of a requesting of aniets of automatic call features for automatic actions system seriosope multipate across multipate acros

LLC		America					
RPX Clearinghouse LLC	Communication system architecture and operating methodology providing a virtual neighborhood network	United States of America	09502699	02/11/2000	7142503	11/28/2006	Granted
RPX Clearinghouse LLC	Label selection for end- to-end label-switched traffic through a communications network	United States of America	09507080	02/18/2000	6738354	05/18/2004	Granted
RPX Clearinghouse LLC	Switch for optical signals	United States of America	09511065	02/23/2000	6606427	08/12/2003	Granted
RPX Clearinghouse LLC	Encoding addresses in a communication system	United States of America	09511777	02/24/2000	7185097	02/27/2007	Granted
RPX Clearinghouse LLC	Method of deploying a fixed wireless access communications network such that a specified level of link performance is maintained	United States of America	09512910	02/25/2000	7142863	11/28/2006	Granted
SBC Properties, L.P. / RPX Clearinghouse LLC	Method and system for filter based message processing in a unified messaging system	United States of America	09515784	02/29/2000	6438215	08/20/2002	Granted
RPX Clearinghouse LLC	Layer 3 routing in self- healing networks	United States of America	09522096	03/09/2000	6490244	12/03/2002	Granted
RPX Clearinghouse LLC	Automatic remote communication using network telephony	United States of America	09522325	03/09/2000	7890117	02/15/2011	Granted
RPX Clearinghouse LLC	Dynamic allocation of shared network resources between connection-oriented and connectionless traffic	United States of America	09527584	03/17/2000	7296087	11/13/2007	Granted
RPX Clearinghouse LLC	Intermixing data and voice on voice circuits	United States of America	09528232	03/17/2000	6570966	05/27/2003	Granted
RPX Clearinghouse LLC	System, device and method for supporting a label switched path across a non-MPLS compliant segment	United States of America	09528261	03/17/2000	7082140	07/25/2006	Granted
RPX Clearinghouse LLC	High efficiency dual supply power amplifier	United States of America	09537721	03/30/2000	6323733	11/27/2001	Granted
RPX Clearinghouse LLC	Optical amplifier gain control	United States of America	09539124	03/30/2000	6366395	04/02/2002	Granted
RPX Clearinghouse LLC	Optical amplifier pump control	United States of America	09539126	03/30/2000	6501595	12/31/2002	Granted
RPX Clearinghouse LLC	Unicast agent advertisement based on layer 2 and layer 3 motion detection	United States of America	09540362	03/31/2000	7173917	02/06/2007	Granted
RPX	Method, apparatus,	United	09540756	03/31/2000	8028227	09/27/2011	Granted

Clearinghouse	processor-readable	States of	No.				Status
LLC	media and signals for acquiring and presenting acquired	America					
RPX	multimedia content Testing operation of a	United	09545545	04/07/2000	6574384	06/03/2003	Granted
Clearinghouse LLC	photonic switch	States of America	09343343	04/07/2000	03/4384	00/03/2003	Granie
RPX Clearinghouse LLC	Method of increasing capacity in a fixed wireless access network in which subscribers communicate with base stations via directional antennas	United States of America	09545546	04/07/2000	6628952	09/30/2003	Granted
RPX Clearinghouse LLC	Crosspoint switch protection using additional switching elements to provide alternate paths	United States of America	09545547	04/07/2000	6493479	12/10/2002	Granted
RPX Clearinghouse LLC	Networking device and method for making cyclic redundancy check (CRC) immune to scrambler error duplication	United States of America	09545660	04/10/2000	6609226	08/19/2003	Granted
RPX Clearinghouse LLC	Apparatus for reshaping optical pulses	United States of America	09553135	04/19/2000	6580857	06/17/2003	Granted
RPX Clearinghouse LLC	Performance modeling of a communications system	United States of America	09557451	04/24/2000	7024475	04/04/2006	Granted
RPX Clearinghouse LLC	Method and apparatus for normalizing channel specific speech feature elements	United States of America	09559459	04/28/2000	6502070	12/31/2002	Granted
RPX Clearinghouse LLC	Supervisory control plane over wavelength routed networks	United States of America	09563864	05/04/2000	7190896	03/13/2007	Granted
RPX Clearinghouse LLC	Call admission control	United States of America	09577292	05/23/2000	7260060	08/21/2007	Granted
RPX Clearinghouse LLC	Balanced networks	United States of America	09579501	05/30/2000	6606667	08/12/2003	Granted
RPX Clearinghouse LLC	Optical switch with power equalization	United States of America	09580495	05/30/2000	7542675	06/02/2009	Granted
RPX Clearinghouse LLC	High capacity passive optical network	United States of America	09584330	05/30/2000	7218854	05/15/2007	Granted
RPX Clearinghouse LLC	Method and apparatus for frequency domain data frame transmission	United States of America	09587036	06/02/2000	6598200	07/22/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for call processing in response to a call request from an originating device	United States of America	09589326	06/07/2000	6870848	03/22/2005	Grantec
RPX Clearinghouse	Method and apparatus for creating a software	United States of	09590431	06/08/2000	6594822	07/15/2003	Grante

LLC	patch by comparing	America					
	object files	7 IIIICITCU					
RPX Clearinghouse LLC	Optical switching device	United States of America	09593697	06/15/2000	6366716	04/02/2002	Granted
RPX Clearinghouse LLC	Security framework for an IP mobility system using variable-based security associations and broker redirection	United States of America	09595551	06/16/2000	7174018	02/06/2007	Granted
RPX Clearinghouse LLC	Providing desired service policies to subscribers accessing internet	United States of America	09600054	12/01/1999	6952728	10/04/2005	Granted
RPX Clearinghouse LLC	Tuneable optical filters	United States of America	09603080	06/26/2000	6459533	10/01/2002	Granted
RPX Clearinghouse LLC	Urgency of call indication to called party through distinctive notification	United States of America	09609295	06/30/2000	6650746	11/18/2003	Granted
RPX Clearinghouse LLC	ATM transport over multi-protocol label switching	United States of America	09614601	07/12/2000	6791985	09/14/2004	Granted
RPX Clearinghouse LLC	Method and apparatus for providing and facilitating interaction with distributed manager information of a network	United States of America	09615864	07/13/2000	6430614	08/06/2002	Granted
RPX Clearinghouse LLC	Address translation method and system having a forwarding table data structure	United States of America	09616880	07/14/2000	6243720	06/05/2001	Granted
RPX Clearinghouse LLC	System, device, and method for establishing and removing a label switched path in a communication network	United States of America	09618530	07/18/2000	7023846	04/04/2006	Granted
RPX Clearinghouse LLC	Surface wave devices with static electric field	United States of America	09624029	07/24/2000	6380828	04/30/2002	Granted
RPX Clearinghouse LLC	Method, apparatus, computer-readable media and user interface for annunciating problems in a system	United States of America	09624239	07/24/2000	7107496	09/12/2006	Granted
RPX Clearinghouse LLC	Tunable optical filter and optical modulator	United States of America	09625175	07/25/2000	6396632	05/28/2002	Granted
RPX Clearinghouse LLC	Object-oriented network management interface	United States of America	09632294	08/04/2000	7260621	08/21/2007	Granted
RPX Clearinghouse LLC	Multilayer circuit board	United States of America	09636594	08/10/2000	6445591	09/03/2002	Granted
RPX Clearinghouse LLC	Multilayer circuit board	United States of America	09636595	08/10/2000	6487083	11/26/2002	Granted
RPX Clearinghouse	Route selection for alternate paths in	United States of	09636701	08/11/2000	6914912	07/05/2005	Granted

LC	connection-oriented	America					
RPX	networks Optical fiber	United	09636806	08/10/2000	6546028	04/08/2003	Grante
Clearinghouse	wavelength reference	States of	07030000	06/10/2000	0340026	04/00/2003	Granic
LC	device	America					
PX	Aggregating filters	United	09638372	08/15/2000	7065042	06/20/2006	Grante
learinghouse		States of					
LC	2011	America	00.00075	00/16/0000	6520525	02/04/2002	<u> </u>
PX	Midplane configuration featuring	United States of	09639075	08/16/2000	6528737	03/04/2003	Grante
learinghouse LC	surface contact	America					
LC	connectors						
PX	System and method for	United	09640009	08/17/2000	6309117	10/30/2001	Grante
learinghouse	adjustment of color	States of					
LC	presentation in	America					
	networked media						
PX	Allocating network	United	09645186	08/24/2000	7283477	10/16/2007	Grante
learinghouse LC	resources	States of America					
PX	Generic fault	United	09648622	08/28/2000	6697970	02/24/2004	Grante
learinghouse	management method	States of	0.010022	00,20,2000	5557570	02/2 I/200T	Jianik
LC	and system	America					
PX	Technique for reducing	United	09651188	08/30/2000	6388890	05/14/2002	Grante
learinghouse	the number of layers in	States of					
LC	a multilayer circuit	America					
	board	1. ·	00.550.004	00/01/2000	6801800	0.4/80/8008	
PX	Chromatic dispersion	United States of	09653984	09/01/2000	6381388	04/30/2002	Grante
learinghouse LC	compensation	America					
PX	System, device, and	United	09660143	09/13/2000	8966100	02/24/2015	Grante
Clearinghouse	method for distributing	States of	0,000115	03/13/2000	0,00100	02/21/2013	Oranic
LC	access control	America					
	information in a						
	communication system						
XPX	Technique for coupling	United	09660196	09/12/2000	6399898	06/04/2002	Grante
learinghouse	signals between circuit boards	States of America					
LC PX	System for cancelling	United	09664373	09/18/2000	6546235	04/08/2003	Grante
Clearinghouse	distortion in an	States of	09004373	09/18/2000	0340233	04/06/2003	Granic
LC	electronic circuit	America					
PX	System, device, and	United	09668219	09/22/2000	7184396	02/27/2007	Grante
learinghouse	method for bridging	States of					
LC	network traffic	America					
PX	Apparatus and method	United	09668220	09/22/2000	7233567	06/19/2007	Grante
learinghouse	for supporting multiple	States of					
LC	traffic redundancy mechanisms	America					
PX.	Broadband	United	09671863	09/27/2000	6466363	10/15/2002	Grante
learinghouse	amplification with first	States of	070/1603	0312112000	0400000	10/13/2002	Grant
LC	and second amplifiers	America					
	having different pump						
	wavelength						
	requirements						
PX	Media gateway	United	09672821	09/29/2000	7533174	05/12/2009	Grante
learinghouse	connection information	States of America					
LC	Notes and a coloring		00695370	10/10/2000	(500705	02/18/2002	C
PX learinghouse	Network selection support in a	United States of	09685279	10/10/2000	6522735	02/18/2003	Grante
LC	support in a communications	America					
	service bidding						
	exchange						
PX	Call protect systems	United	09689101	10/12/2000	6590961	07/08/2003	Grante
learinghouse	with handoff	States of					

LLC	redundancy	America					
RPX Clearinghouse LLC	Method and apparatus for using documents written in a markup language to access and configure network elements	United States of America	09692949	10/20/2000	7313608	12/25/2007	Granted
RPX Clearinghouse LLC	System, apparatus and method for personalising web content	United States of America	09693132	10/20/2000	7249197	07/24/2007	Granted
RPX Clearinghouse LLC	Methods and systems for process rollback in a shared memory parallel processor computing environment	United States of America	09696957	10/27/2000	6751711	06/15/2004	Granted
RPX Clearinghouse LLC	System and method for reporting communication related information in a packet mode communication	United States of America	09697822	10/26/2000	7283521	10/16/2007	Granted
RPX Clearinghouse LLC	Method and apparatus for optical to electrical to optical conversion in an optical cross- connect switch	United States of America	09704439	11/01/2000	6650803	11/18/2003	Granted
RPX Clearinghouse LLC	Optical cross-connect switching system with bridging, test access and redundancy	United States of America	09704444	11/01/2000	6597826	07/22/2003	Granted
RPX Clearinghouse LLC	Optical cross-connect switching system	United States of America	09704457	11/01/2000	6571030	05/27/2003	Granted
RPX Clearinghouse LLC	Method of using a web- browser to pass information from a first web-entity to one of a plurality of second web-entities	United States of America	09707015	11/06/2000	7613824	11/03/2009	Granted
RPX Clearinghouse LLC	Method of data rate exchange for transmissions across a packet-based network	United States of America	09709576	11/13/2000	6888794	05/03/2005	Granted
RPX Clearinghouse LLC	Apparatus and method to provide one-click logon service for wireless devices	United States of America	09711056	11/09/2000	7136631	11/14/2006	Granted
RPX Clearinghouse LLC	Detecting if a secure link is alive	United States of America	09714082	11/16/2000	6976071	12/13/2005	Granted
RPX Clearinghouse LLC	Reconfigurable add- drop multiplexer	United States of America	09722968	11/27/2000	6807371	10/19/2004	Granted
RPX Clearinghouse LLC	Dispersion managed fiber optic cable and system	United States of America	09723018	11/27/2000	6526208	02/25/2003	Granted
RPX Clearinghouse LLC	Communications system, apparatus and method therefor	United States of America	09723019	11/27/2000	7161897	01/09/2007	Granted
RPX Clearinghouse LLC	Testing using test packets containing random data	United States of America	09723836	11/28/2000	6625764	09/23/2003	Granted

		···	No.	11/00/0000	6510000	00/11/2000	Status
RPX Clearinghouse LLC	Photonic switch status tester	United States of America	09724454	11/28/2000	6519383	02/11/2003	Granted
RPX Clearinghouse LLC	Protection switching arrangement for an optical switching	United States of America	09726027	11/30/2000	6999677	02/14/2006	Granteo
RPX Clearinghouse LLC	System  System, device, and method for isolating signaling environments in a power line communication system	United States of America	09730505	12/05/2000	6590493	07/08/2003	Grante
RPX Clearinghouse LC	Chirped Bragg grating reflectors and adjustable dispersion apparatus incorporating such gratings	United States of America	09731399	12/06/2000	6519390	02/11/2003	Granteo
RPX Clearinghouse LLC	Reliable hardware support for the use of formal languages in high assurance systems	United States of America	09735035	12/12/2000	6792560	09/14/2004	Granted
RPX Clearinghouse LLC	Distributed redirect server	United States of America	09735501	12/14/2000	6643357	11/04/2003	Grante
RPX Clearinghouse LLC	Connection verification for optical switches	United States of America	09735537	12/14/2000	7120356	10/10/2006	Grante
RPX Clearinghouse LLC	System and method for managing data transmissions from a TFTP server by specifying a maximum bandwidth	United States of America	09736210	12/15/2000	7246171	07/17/2007	Grante
RPX Clearinghouse .LC	Providing media on demand	United States of America	09739066	12/18/2000	7337231	02/26/2008	Grante
RPX Clearinghouse LLC	Modular high capacity network	United States of America	09739277	12/19/2000	7209659	04/24/2007	Grante
RPX Clearinghouse LLC	Planar waveguide dispersion compensator	United States of America	09739528	12/15/2000	6636662	10/21/2003	Grante
RPX Clearinghouse LC	High performance orthogonal interconnect architecture without midplane	United States of America	09739882	12/20/2000	6462957	10/08/2002	Grante
RPX Clearinghouse LLC	Dormant backup link for OSPF network protection	United States of America	09739902	12/20/2000	7234001	06/19/2007	Grante
RPX Clearinghouse LLC	Electronic circuit board	United States of America	09739977	12/20/2000	6459593	10/01/2002	Grante
PX Clearinghouse LC	Voltage biased section of non-linear transmission line	United States of America	09741257	12/19/2000	6538525	03/25/2003	Grante
PX learinghouse LC	Gain determination for correlation processes	United States of America	09742232	12/22/2000	6621338	09/16/2003	Grante
RPX Clearinghouse LLC	System and method of dynamic online session caching	United States of America	09745812	12/21/2000	6640284	10/28/2003	Grante

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Telecommunications system power supply	United States of America	09745887	12/21/2000	6496626	12/17/2002	Granted
RPX Clearinghouse LLC	Dynamic assignment of traffic classes to a priority queue in a packet forwarding device	United States of America	09747296	12/22/2000	8619793	12/31/2013	Granted
RPX Clearinghouse LLC	Device and method for data storage	United States of America	09748757	12/22/2000	7177953	02/13/2007	Granted
RPX Clearinghouse LLC	Technique for facilitating circuitry design	United States of America	09749406	12/28/2000	6591399	07/08/2003	Granted
RPX Clearinghouse LLC	Suspended stripline structures to reduce skin effect and dielectric loss to provide low loss transmission of signals with high data rates or high frequencies	United States of America	09749411	12/28/2000	6603376	08/05/2003	Granted
RPX Clearinghouse LLC	Technology implementation of suspended stripline within multi-layer substrate used to vary time delay and to maximize the reach of signals with high data rates or high frequencies	United States of America	09749435	12/28/2000	6621384	09/16/2003	Granted
RPX Clearinghouse LLC	Inserted components for via connection of signal tracks to achieve continuous impedance matching in multi-layer substrate	United States of America	09749470	12/28/2000	6441319	08/27/2002	Granted
RPX Clearinghouse LLC	System and method for testing TDM sRAMs	United States of America	09749945	12/29/2000	6563751	05/13/2003	Granted
RPX Clearinghouse LLC	Apparatus, method and medium for providing an optical effect	United States of America	09750062	12/29/2000	6481844	11/19/2002	Granted
RPX Clearinghouse LLC	Voice optimization in a network having voice over the internet protocol communication devices	United States of America	09750766	12/28/2000	7787447	08/31/2010	Granted
RPX Clearinghouse LLC	Optical switching device	United States of America	09750871	12/28/2000	6594413	07/15/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for monitoring internet based sales transactions by local vendors	United States of America	09751461	12/29/2000	6868396	03/15/2005	Granted
RPX Clearinghouse LLC	Call trace on a packet switched network	United States of America	09751796	12/29/2000	6937572	08/30/2005	Granted
RPX	System and method for	United States of	09752838	12/28/2000	6581075	06/17/2003	Granted

LLC	synchronization	America					
RPX Clearinghouse LLC	Voice mail caller identification	United States of America	09753025	12/29/2000	6970906	11/29/2005	Granted
RPX Clearinghouse LLC	Method and apparatus for classifying Java remote method invocation transport traffic	United States of America	09753080	12/29/2000	7237012	06/26/2007	Granted
RPX Clearinghouse LLC	Lawful communication interception— intercepting communication associated information	United States of America	09757904	01/10/2001	7152103	12/19/2006	Granted
RPX Clearinghouse LLC	Protecting optical switches	United States of America	09767098	01/22/2001	6526195	02/25/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for setting up a communication with a target base station in a cellular or cordless mobile telecommunications system	United States of America	09807785	10/19/1999	7089009	08/08/2006	Granted
RPX Clearinghouse LLC	Signal layer interconnects	United States of America	09821722	03/29/2001	7348494	03/25/2008	Granted
RPX Clearinghouse LLC	Photonic bandgap device using coupled defects	United States of America	09827086	04/05/2001	6618535	09/09/2003	Granted
RPX Clearinghouse LLC	Method and apparatus to increase cable connector density in equipment	United States of America	09829978	04/11/2001	6497578	12/24/2002	Granted
RPX Clearinghouse LLC	Active set management in cellular wireless network that supports high data rate forward link transmissions	United States of America	09833837	04/12/2001	6493328	12/10/2002	Granted
RPX Clearinghouse LLC	Chromatic dispersion discriminator	United States of America	09842236	04/26/2001	6586724	07/01/2003	Granted
RPX Clearinghouse LLC	System and method for bridge and roll in a photonic switch	United States of America	09850130	05/08/2001	6643423	11/04/2003	Granted
RPX Clearinghouse LLC	Recipient controlled contact directories	United States of America	09852995	05/10/2001	7162474	01/09/2007	Granted
RPX Clearinghouse LLC	Scalable policy server	United States of America	09859702	05/17/2001	7181532	02/20/2007	Granted
RPX Clearinghouse LLC	Management and control of multi-layer networks	United States of America	09862861	05/22/2001	7269185	09/11/2007	Granted
RPX Clearinghouse LLC	Dimensionally stable device construction	United States of America	09864844	05/24/2001	6490385	12/03/2002	Granted
RPX Clearinghouse LLC	Method and apparatus for securely transmitting encrypted data through a firewall and for monitoring user	United States of America	09865667	05/29/2001	7516485	04/07/2009	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
	traffic		.,				Stutus
RPX	Point to multipoint	United	09867175	05/29/2001	7154879	12/26/2006	Granted
Clearinghouse	network	States of	07007173	03/23/2001	/1346/7	12/20/2000	Granica
LLC	network	America					
RPX	Parallel data bus	United	09875202	06/07/2001	7061938	06/13/2006	Granted
Clearinghouse	integrated clocking and	States of	098/3202	00/07/2001	/001936	00/13/2000	Granicu
_	control	America					
RPX			09876316	06/07/2001	6642420	11/04/2002	Cuontad
	Dispersion	United States of	098/0310	06/07/2001	6643429	11/04/2003	Granted
Clearinghouse	compensation	America					
LLC	apparatus and method	America					
	utilising sampled						
	Bragg gratings						
RPX	Control plane failure	United	09891011	06/25/2001	7130926	10/31/2006	Granted
Clearinghouse	recovery in a network	States of					
LLC		America					
RPX	Tuning of optical fiber	United	09893258	06/27/2001	6647030	11/11/2003	Granted
Clearinghouse	components	States of					
LLC		America					
RPX	Continuation session	United	09898205	07/03/2001	7193980	03/20/2007	Granted
Clearinghouse	attribute	States of					
LLC		America					
RPX	Application-aware	United	09906548	07/16/2001	7154851	12/26/2006	Granted
Clearinghouse	resource reservation in	States of					
LLC	multiservice networks	America					
RPX	Optical network	United	09928745	08/14/2001	7171121	01/30/2007	Granted
Clearinghouse	subscriber access	States of					
LLC	architecture	America					
RPX	Optical switch router	United	09931643	08/15/2001	7283747	10/16/2007	Granted
Clearinghouse	· P	States of					
LLC		America					
RPX	Optical switching	United	09933146	08/20/2001	6636337	10/21/2003	Granted
Clearinghouse	device based on stable,	States of	03333110	00/20/2001	0050557	10/21/2005	Granca
LLC	non-absorbing optical	America					
LLC	hard limiters						
RPX	System, method and	United	09935819	08/23/2001	6566639	05/20/2003	Granted
	-	States of	09933619	06/23/2001	0300039	03/20/2003	Granieu
Clearinghouse	apparatus for data storage using an optical	America					
LLC	medium	America					
DDW		TT '4 1	00052220	00/12/2001	7520212	0.5/0.6/0.000	C . 1
RPX	System and method for	United	09952328	09/13/2001	7539313	05/26/2009	Granted
Clearinghouse	key management	States of					
LLC	across geographic	America					
	domains						
RPX	Rotator	United	09954192	09/18/2001	7184431	02/27/2007	Granted
Clearinghouse	communication switch	States of					
LLC	having redundant	America					
	elements						
RPX	Switched channel-band	United	09960959	09/25/2001	7233590	06/19/2007	Granted
Clearinghouse	network	States of					
LLC		America					
RPX	Multiple quantum well	United	09969348	10/02/2001	6573530	06/03/2003	Granted
Clearinghouse	optoelectronic devices	States of					
LLC		America					
RPX	Establishing a	United	09973656	10/09/2001	7246166	07/17/2007	Granted
Clearinghouse	communications path	States of					
LLC	via a multi-homed	America					
	communications						
	network						
RPX	Method and apparatus	United	09976643	10/12/2001	7200125	04/03/2007	Granted
Clearinghouse	for differentiated	States of	0,5,0045	10,12,2001	, 200123	0.,05,2007	Crumou
LLC	communications in a	America					
LLC	wireless network						
RPX	Hybrid	United	09987164	11/13/2001	7187865	03/06/2007	Granted
MA	11y Ullu	States of	0770/104	11/13/2001	/ 10 / 00 2	03/00/200/	Granicu
		States 01					

			No.				Status
Clearinghouse LLC	photonic/electronic switching in a multi- channel network	America					
RPX Clearinghouse LLC	Method and apparatus for reducing undesirable reflected light in integrated opto-	United States of America	09993271	11/14/2001	6520652	02/18/2003	Granteo
RPX Clearinghouse LLC	Optical array amplifier	United States of America	10008082	11/02/2001	6643059	11/04/2003	Granteo
RPX Clearinghouse LLC	Method of and apparatus for data transmission	United States of America	10012339	12/12/2001	7181616	02/20/2007	Granteo
RPX Clearinghouse LLC	Content request routing method	United States of America	10013677	12/13/2001	8429221	04/23/2013	Granted
RPX Clearinghouse LLC	Distributed routing core	United States of America	10016777	12/10/2001	7240123	07/03/2007	Granted
RPX Clearinghouse LLC	Method and apparatus for through-body optical component attachment using laser soldering	United States of America	10021975	12/13/2001	6627847	09/30/2003	Granted
RPX Clearinghouse LLC	Method and apparatus for monitoring channel frequency response	United States of America	10024020	12/21/2001	7564895	07/21/2009	Granted
RPX Clearinghouse LLC	System and method for network control and provisioning	United States of America	10029148	12/28/2001	7249169	07/24/2007	Granted
RPX Clearinghouse LLC	Routing traffic in a communications network	United States of America	10032411	12/21/2001	7139278	11/21/2006	Granted
RPX Clearinghouse LLC	Personal user agent	United States of America	10036247	12/27/2001	7299286	11/20/2007	Granted
RPX Clearinghouse LLC	Information routing system and apparatus	United States of America	10052128	01/17/2002	6999454	02/14/2006	Granted
RPX Clearinghouse LLC	Data burst scheduling	United States of America	10054362	11/13/2001	7215666	05/08/2007	Granted
RPX Clearinghouse LLC	Time-coordination in a burst-switching network	United States of America	10054509	11/13/2001	7212551	05/01/2007	Granted
RPX Clearinghouse LLC	Rate-controlled optical burst switching	United States of America	10054512	11/13/2001	7187654	03/06/2007	Granted
RPX Clearinghouse LLC	Optical amplifier gain control monitoring	United States of America	10058879	01/28/2002	6646790	11/11/2003	Granted
RPX Clearinghouse LLC	Adaptive state transition control	United States of America	10075436	02/14/2002	7301950	11/27/2007	Granteo
RPX Clearinghouse LLC	Technique for synchronizing clocks in a network	United States of America	10076415	02/19/2002	7043651	05/09/2006	Granted
RPX Clearinghouse LLC	Technique for multicasting receiver membership reports	United States of America	10077763	02/20/2002	7149215	12/12/2006	Granteo
RPX	Monitoring natural	United States of	10100703	03/19/2002	7227937	06/05/2007	Granted

Clearinghouse	interaction for presence	America					
RPX	detection Technique for reducing	United	10101211	03/20/2002	7256354	08/14/2007	Granted
Clearinghouse	the number of layers in	States of	10101211	03/20/2002	7230331	00/11/2007	Granica
LLC	a multilayer circuit	America					
	board						
RPX	Intelligent address	United	10106366	03/27/2002	7173937	02/06/2007	Granted
Clearinghouse	registration for optical	States of					
LLC	user-network interface	America					
RPX	Service broker	United	10106415	03/26/2002	7286545	10/23/2007	Grantec
Clearinghouse		States of					
LLC		America					-
RPX	Multi-phase adaptive	United	10107332	03/28/2002	7117257	10/03/2006	Grantec
Clearinghouse	network configuration	States of America					
LLC RPX	Data atusam filtanina	United	10107876	03/27/2002	7272137	09/18/2007	Cuantas
Clearinghouse	Data stream filtering apparatus and method	States of	1010/8/6	03/2//2002	/2/213/	09/18/2007	Granteo
LLC	apparatus and memod	America					
RPX	Time slot scheduling	United	10109918	03/29/2002	7212540	05/01/2007	Granted
Clearinghouse	for shared-medium	States of	2020//10	55,25,2002		02.01/200/	
LLC	communications	America					
	networks						
RPX	Network	United	10114100	04/02/2002	7275109	09/25/2007	Granted
Clearinghouse	communication	States of					
LLC	authentication	America					
RPX	Content provider	United	10115396	04/03/2002	7290286	10/30/2007	Granted
Clearinghouse	secure and tracable	States of					
LLC	portal	America	10115561	0.4/0.2/2.002	<b>50.160.56</b>	05/15/2005	
RPX	Method and apparatus	United	10115561	04/03/2002	7246376	07/17/2007	Granteo
Clearinghouse LLC	for security	States of America					
LLC	management in a networked	7 Illierica					
	environment						
RPX	Presence information	United	10119923	04/10/2002	7139797	11/21/2006	Granted
Clearinghouse	based on media activity	States of					
LLC	·	America					
RPX	Technique for reducing	United	10126700	04/22/2002	6545876	04/08/2003	Granteo
Clearinghouse	the number of layers in	States of					
LLC	a multilayer circuit	America					
	board						
RPX	Technique for	United	10152028	05/22/2002	7212492	05/01/2007	Granted
Clearinghouse	providing a control and	States of					
LLC	management protocol	America					
	for an ethernet layer in an ethernet network						
RPX	Optical switching and	United	10167378	06/11/2002	6591032	07/08/2003	Granted
Clearinghouse	attenuation systems	States of	1010/3/6	00/11/2002	0371032	07/00/2003	Talle
LLC	and methods therefor	America					
RPX	System and method of	United	10172547	06/14/2002	7352836	04/01/2008	Granted
Clearinghouse	cross-clock domain	States of					
LLC	rate matching	America					
RPX	Method and apparatus	United	10172930	06/17/2002	7269132	09/11/2007	Grante
Clearinghouse	for achieving	States of					
LLC	transparent redundancy	America					
	at a hierarchical						
DDV	boundary for	T Turk - J	10173001	06/19/2022	7001656	05/00/0007	C
RPX	Technique for	United States of	10172981	06/18/2002	7221656	05/22/2007	Granteo
Clearinghouse LLC	implementing an admission control	States of America					
LLC	scheme for data flows	inicitea					
RPX	Chromatic dispersion	United	10175065	06/20/2002	6657186	12/02/2003	Granted
Clearinghouse	discriminator	States of	101,5005	00/20/2002	000 / 100	12,02,2003	Granice
		America					

Owner	Title	Country	Application	Filing Date	Patent No.	Issue Date	Patent
RPX Clearinghouse LLC	Method and apparatus for initiating telephony contact	United States of America	<b>No.</b> 10179656	06/25/2002	7139381	11/21/2006	Status Granted
RPX Clearinghouse LLC	High capacity optical node	United States of America	10180050	06/27/2002	7236699	06/26/2007	Granted
RPX Clearinghouse LLC	Irregular two- dimensional wide- coverage network	United States of America	10180080	06/27/2002	7200340	04/03/2007	Granted
RPX Clearinghouse LLC	Method and system for filter based message processing in a unified messaging system	United States of America	10183283	06/26/2002	6782079	08/24/2004	Granted
RPX Clearinghouse LLC	Adaptive data rate control for mobile data transfer for high throughput and guaranteed error rate	United States of America	10186787	07/01/2002	7142562	11/28/2006	Granted
RPX Clearinghouse LLC	Virtual private networks	United States of America	10191660	07/09/2002	7152115	12/19/2006	Granted
RPX Clearinghouse LLC	Rerouting in connection-oriented communication networks and communication systems	United States of America	10192498	07/11/2002	7180866	02/20/2007	Granted
RPX Clearinghouse LLC	Failure protection for packet telephony	United States of America	10194114	07/12/2002	7286467	10/23/2007	Granted
RPX Clearinghouse LLC	Call-fail-safe method for wireless traffic distribution across bands	United States of America	10194329	07/12/2002	7289484	10/30/2007	Granted
RPX Clearinghouse LLC	Routing for a communications network	United States of America	10194551	07/12/2002	7286479	10/23/2007	Granted
RPX Clearinghouse LLC	Portable call management system	United States of America	10199797	07/19/2002	7149506	12/12/2006	Granted
RPX Clearinghouse LLC	Selective purging of routing data packets in a network	United States of America	10209043	07/30/2002	7239613	07/03/2007	Granted
RPX Clearinghouse LLC	Bidirectional optical networks	United States of America	10216397	08/12/2002	7043159	05/09/2006	Granted
RPX Clearinghouse LLC	Technique for enabling a plurality of software components to communicate in a software component matrix environment	United States of America	10224417	08/21/2002	8086665	12/27/2011	Granted
RPX Clearinghouse LLC	Payload mapping in synchronous networks	United States of America	10230050	08/28/2002	6704326	03/09/2004	Granted
RPX Clearinghouse LLC	Frame based data transmission over synchronous digital hierarchy network	United States of America	10233183	08/29/2002	6816496	11/09/2004	Granted
RPX Clearinghouse LLC	Internet call waiting with voicemail system that provides monitoring during	United States of America	10240212	03/21/2001	7245612	07/17/2007	Granted

Owner	Title	Country	Application	Filing Date	Patent No.	Issue Date	Patent
	recording		No.				Status
RPX	Clock recovery using a	United	10246408	09/19/2002	7020791	03/28/2006	Granted
Clearinghouse LLC	double-exponential smoothing process	States of America					
XROS / RPX	Link discovery,	United	10261099	09/30/2002	8971706	03/03/2015	Granted
Clearinghouse	verification, and failure	States of America					
LLC	isolation in an optical communication system	America					
RPX	Automated attendant	United	10262288	10/01/2002	7920546	04/05/2011	Granted
Clearinghouse LLC	multimedia session	States of America					
RPX	System and method for	United	10264053	10/03/2002	7302493	11/27/2007	Granted
Clearinghouse LLC	providing desired service policies to	States of America					
	subscribers accessing						
RPX	Method and system for	United	10264137	10/03/2002	6868144	03/15/2005	Granted
Clearinghouse	Method and system for interfacing systems	States of	10204137	10/03/2002	0606144	03/13/2003	Granieu
LLC	unified messaging with	America					
	legacy systems located behind corporate						
	firewalls						
RPX	Label control method and apparatus for	United States of	10265621	10/08/2002	7260097	08/21/2007	Granted
Clearinghouse LLC	and apparatus for virtual private LAN	America					
	segment networks						
RPX Clearinghouse	Hierarchical virtual trunking over packet	United States of	10266183	10/07/2002	7944817	05/17/2011	Granted
LLC	networks	America					
RPX	Technique for	United	10274083	10/21/2002	7830914	11/09/2010	Granted
Clearinghouse LLC	delivering and enforcing network	States of America					
	quality of service to						
RPX	multiple outstations  Method and apparatus	United	10275392	05/04/2001	7826384	11/02/2010	Granted
Clearinghouse	for negotiating bearer	States of	102/3392	03/04/2001	7620364	11/02/2010	Granieu
LLC	control parameters	America					
RPX	using property sets  Modular photonic	United	10286781	11/04/2002	7088919	08/08/2006	Granted
Clearinghouse	switch with	States of			, , , , , , , , , , , , , , , , , , , ,	00,00,200	
LLC RPX	wavelength conversion Interworking of	America United	10325143	12/20/2002	7920690	04/05/2011	Granted
Clearinghouse	multimedia and	States of	10323143	12/20/2002	/920090	04/03/2011	Granieu
LLC	telephony equipment	America					
RPX Clearinghouse	Test point monitor using embedded	United States of	10326064	12/23/2002	6753679	06/22/2004	Granted
LLC	passive resistance	America					
RPX	Method and apparatus for processing calls on	United States of	10351272	01/24/2003	6865624	03/08/2005	Granted
Clearinghouse LLC	a multiprocessor	America					
	communication system						
RPX Clearinghouse	Network data routing protection cycles for	United States of	10351780	01/27/2003	7486615	02/03/2009	Granted
LLC	automatic protection	America					
DDV	Switching	I Initad	10260680	02/10/2002	0.462.122	06/11/2012	Cwarsts d
RPX Clearinghouse	Optical switch and protocols for use	United States of	10360680	02/10/2003	8463123	06/11/2013	Granted
LLC	therewith	America					
RPX Clearinghouse	Technique for transferring	United States of	10364401	02/12/2003	7272315	09/18/2007	Granted
LLC	information in a	America					
DDV	passive optical network	T Tuito J	10275540	02/27/2002	7260941	09/31/3007	Cuarted
RPX	System and method for	United	10375549	02/27/2003	7260841	08/21/2007	Granted

	maintaining assess to	States of					
Clearinghouse LC	maintaining access to content in an encrypted network environment	States of America					
RPX Clearinghouse LLC	Proxy SIP server interface for session initiation communications	United States of America	10385352	03/10/2003	7136635	11/14/2006	Granted
RPX Clearinghouse LLC	Method for using a knowledge digest to verify configuration information in a network	United States of America	10385942	03/11/2003	7839891	11/23/2010	Grantec
RPX Clearinghouse LLC	Apparatus for using a verification probe in an LDP MPLS network	United States of America	10385965	03/11/2003	7359328	04/15/2008	Granteo
RPX Clearinghouse LLC	Verification of configuration information in BGP VPNs	United States of America	10385966	03/11/2003	7668949	02/23/2010	Grante
RPX Clearinghouse LLC	Availability measurement in networks	United States of America	10385995	03/11/2003	7620712	11/17/2009	Grante
RPX Clearinghouse LLC	Transient tolerant verification of communications paths between devices	United States of America	10385996	03/11/2003	7610360	10/27/2009	Grante
RPX Clearinghouse LLC	Method for using a verification probe in an LDP MPLS network	United States of America	10386091	03/11/2003	7283563	10/16/2007	Grante
RPX Clearinghouse LLC	Verification of communications paths between devices	United States of America	10386092	03/11/2003	7453886	11/18/2008	Grante
RPX Clearinghouse LC	Apparatus using a knowledge digest to verify configuration information in a network	United States of America	10386093	03/11/2003	7359404	04/15/2008	Grante
RPX Clearinghouse LLC	Telecommunications network administration graphical user interface	United States of America	10391809	03/20/2003	7917854	03/29/2011	Grante
RPX Clearinghouse LLC	Self-configuring distributed switch	United States of America	10409197	04/09/2003	7209454	04/24/2007	Grante
RPX Clearinghouse LLC	Integrating telephone lines with packet connections	United States of America	10410949	04/10/2003	9042371	05/26/2015	Grante
RPX Elearinghouse LLC	System and method for providing service control to a single telephone end terminal from multiple service providers	United States of America	10411162	04/10/2003	7369539	05/06/2008	Grante
RPX Clearinghouse .LC	Method and apparatus for laser line-width compensation	United States of America	10411332	04/11/2003	7200339	04/03/2007	Grante
RPX Clearinghouse LLC	Policy based mobile IP	United States of America	10417437	04/16/2003	7230951	06/12/2007	Grante
RPX Clearinghouse LLC	Optical waveguide	United States of America	10425807	04/29/2003	7136558	11/14/2006	Grante
RPX	SVC signaling system and method	United States of	10435316	05/09/2003	7295566	11/13/2007	Grante

			No.				Status
Merck Patent Gmbh / RPX Clearinghouse LLC	Multi-hop wireless communications system having relay equipments which select signals to	America United States of America	10456249	06/06/2003	7184703	02/27/2007	Granted
RPX Clearinghouse LLC	forward  Differential forwarding in address-based carrier networks	United States of America	10593108	04/06/2005	8923292	12/30/2014	Granted
RPX Clearinghouse LLC	Emergency services for packet networks	United States of America	10606687	06/26/2003	7899174	03/01/2011	Granted
RPX Clearinghouse LLC	Apparatus, method, and computer program for managing resources in a communication system	United States of America	10610373	06/30/2003	7281051	10/09/2007	Granted
RPX Clearinghouse LLC	Apparatus, method, and computer program for supporting video conferencing in a communication system	United States of America	10610509	06/30/2003	6963352	11/08/2005	Granted
RPX Clearinghouse LLC	Geographic redundancy for call servers in a cellular system based on a bearer-independent core network	United States of America	10615260	07/08/2003	7532568	05/12/2009	Granted
RPX Clearinghouse LLC	Multi-hop intelligent relaying method and apparatus for use in a frequency division duplexing based wireless access network	United States of America	10617956	07/14/2003	7218891	05/15/2007	Granted
RPX Clearinghouse LLC	Recursive identification of individuals for casual collaborative conferencing	United States of America	10625493	07/23/2003	7627102	12/01/2009	Granted
RPX Clearinghouse LLC	Management of queues in contact centres	United States of America	10645438	08/21/2003	8010607	08/30/2011	Granted
RPX Clearinghouse LLC	Multi-staged services policing	United States of America	10645489	08/22/2003	7965717	06/21/2011	Granted
RPX Clearinghouse LLC	Monitoring for operator services	United States of America	10648000	08/26/2003	7313232	12/25/2007	Granted
RPX Clearinghouse LLC	Method for tuning an embedded capacitor in a multilayer circuit board	United States of America	10653289	09/03/2003	7220287	05/22/2007	Granted
RPX Clearinghouse LLC	SVC-L2 VPNs: flexible on demand switched MPLS/IP layer-2 VPNs for ethernet SVC, ATM and frame relay	United States of America	10658701	09/09/2003	9054896	06/09/2015	Granted
RPX Clearinghouse LLC	Bimodal burst switching	United States of America	10682625	10/09/2003	7289440	10/30/2007	Granted

RPX	Compensation of	United	No. 10690659	10/23/2003	7274879	09/25/2007	Granted
Clearinghouse LLC	temperature-induced dispersion drift in optical communication	States of America	10070037	10/23/2003	7271075	03/23/2007	Granted
	links						
RPX Clearinghouse LLC	Tandem free operation over packet networks	United States of America	10692233	10/23/2003	7876745	01/25/2011	Granted
RPX Clearinghouse LLC	Call transfer for an integrated wireline and wireless service using a temporary directory number	United States of America	10693539	10/24/2003	7844270	11/30/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for ascertaining the capacity of a network switch	United States of America	10701767	11/05/2003	7174002	02/06/2007	Granted
RPX Clearinghouse LLC	Presence reporting wireless messaging	United States of America	10723808	11/26/2003	9118574	08/25/2015	Granted
RPX Clearinghouse LLC	Call transfer for an integrated packet and wireless service using a temporary directory number	United States of America	10723831	11/26/2003	7302258	11/27/2007	Granted
RPX Clearinghouse LLC	Technique for monitoring source addresses through statistical clustering of packets	United States of America	10739299	12/19/2003	7917649	03/29/2011	Granted
RPX Clearinghouse LLC	Hitless manual cryptographic key refresh in secure packet networks	United States of America	10740416	12/22/2003	7581093	08/25/2009	Granted
RPX Clearinghouse LLC	Zoning for distance pricing and network engineering in connectionless and connection-oriented networks	United States of America	10741988	12/19/2003	8019841	09/13/2011	Granted
RPX Clearinghouse LLC	Queue state mirroring	United States of America	10742039	12/19/2003	7814222	10/12/2010	Granted
RPX Clearinghouse LLC	Connectivity assessment for label distribution protocol (LDP) networks	United States of America	10745061	12/22/2003	7680923	03/16/2010	Granted
RPX Clearinghouse LLC	Convergence of circuit-switched voice and packet-based media services	United States of America	10746419	12/24/2003	7894581	02/22/2011	Granted
RPX Clearinghouse LLC	Convergence of circuit-switched voice and packet-based media services	United States of America	10746432	12/24/2003	7899164	03/01/2011	Granted
RPX Clearinghouse LLC	Photonic line sharing for high-speed routers	United States of America	10750531	12/31/2003	9021130	04/28/2015	Granted
RPX Clearinghouse LLC	Directional receiver coupling arrangement with frequency selectivity and gain control for DSL	United States of America	10751635	01/06/2004	7123897	10/17/2006	Granted

RPX	Autodiscovery for	United	10753296	01/08/2004	8024437	09/20/2011	Granted
Clearinghouse LLC	virtual networks	States of America					
RPX	Architecture for	United	10755573	01/12/2004	7245829	07/17/2007	Grantec
Clearinghouse LLC	dynamic connectivity in an edge photonic network architecture	States of America					
RPX	Automatic protection	United	10771201	02/03/2004	6987727	01/17/2006	Granted
Clearinghouse LLC	switching using link- level redundancy supporting multi- protocol label switching	States of America	20112202		, , , , , , , , , , , , , , , , , , ,	~ <u>.</u>	O A MARIO
RPX	Call transfer for an	United	10784743	02/23/2004	9078174	07/07/2015	Granted
Clearinghouse LLC	integrated wireline and wireless service	States of America					
RPX Clearinghouse LLC	Technique for maintaining secure network connections	United States of America	10791414	03/03/2004	8186026	05/29/2012	Granted
RPX Clearinghouse LLC	Method and apparatus for facilitating fulfillment of webservice requests on a communication network	United States of America	10794675	03/05/2004	8484348	07/09/2013	Granted
RPX Clearinghouse LLC	Method and apparatus for testing an optical component	United States of America	10797071	03/11/2004	7286755	10/23/2007	Granted
RPX Clearinghouse LLC	Technique for admission control of packet flows	United States of America	10799703	03/15/2004	8036120	10/11/2011	Granted
RPX Clearinghouse LLC	Speech recognition in automated information services systems	United States of America	10805975	03/22/2004	8954325	02/10/2015	Granted
RPX Clearinghouse LLC	Label selection for end- to-end label-switched traffic through a communications network	United States of America	10806083	03/22/2004	7319672	01/15/2008	Granted
RPX Clearinghouse LLC	Method and apparatus for assigning and allocating network resources to layer 1 virtual private networks	United States of America	10810244	03/26/2004	7680934	03/16/2010	Granted
RPX Clearinghouse LLC	Method for public access to private phone numbers and other telephonic peripherals using a caller access code	United States of America	10823554	04/14/2004	7280535	10/09/2007	Granted
RPX Clearinghouse LLC	Adaptive dialing	United States of America	10824226	04/14/2004	7447165	11/04/2008	Granted
RPX Clearinghouse LLC	Method and apparatus for indicating congestion in a source routed network	United States of America	10827181	04/19/2004	8081566	12/20/2011	Granted
RPX Clearinghouse LLC	Method and apparatus for accelerating failover of VPN traffic in an MPLS provider network	United States of America	10851032	05/21/2004	8107363	01/31/2012	Granted

DDV	36.1.1.1.1	TT '. 1	No.	05/05/0004	7001157	00/21/2010	Status
RPX Clearinghouse	Methods and systems for processing calls in a	United States of	10852890	05/25/2004	7801157	09/21/2010	Granted
LLC	packet network using	America					
	peer call servers						
RPX	Remote control of	United	10856163	05/28/2004	7933396	04/26/2011	Granted
Clearinghouse	CPE-based service	States of					
LLC	logic	America	10050070	06/02/2004	9045607	10/25/2011	C4 - 1
RPX Clearinghouse	Method and apparatus for interfacing a	United States of	10858979	06/02/2004	8045697	10/25/2011	Granted
LLC	customer with a call	America					
	center						
RPX	Technique for	United	10861387	06/07/2004	7259336	08/21/2007	Granted
Clearinghouse	improving power and	States of					
LLC	ground flooding	America	1006060	0.6/1.5/2004	#0.4202 <i>#</i>	11/20/2010	<u> </u>
RPX Clearinghouse	Ethernet differentiated services architecture	United States of	10868607	06/15/2004	7843925	11/30/2010	Granted
Clearinghouse LLC	services architecture	America					
RPX	Communication with a	United	10872582	06/21/2004	7912072	03/22/2011	Granted
Clearinghouse	remote device	States of					
LLC		America					
RPX	Ethernet OAM	United	10881296	06/30/2004	7924725	04/12/2011	Granted
Clearinghouse	performance	States of America					
LLC SBC	management  Method and system for	United	10881355	06/30/2004	7162014	01/09/2007	Granted
Properties,	interfacing systems	States of	10001333	00/30/2004	/102014	01/03/2007	Granteu
L.P. / RPX	unified messaging with	America					
Clearinghouse	legacy systems located						
LLC	behind corporate						
	firewalls						
RPX	Flow admission control in an IP network	United States of	10883207	07/01/2004	7684322	03/23/2010	Granted
Clearinghouse LLC	in an ip network	America					
RPX	Dynamic call	United	10895557	07/21/2004	7313228	12/25/2007	Granted
Clearinghouse	processing control	States of					
LLC		America					
RPX	Method and apparatus	United	10901081	07/29/2004	7925727	04/12/2011	Granted
Clearinghouse	for efficient	States of America					
LLC	communication of management data in a	America					
	telecommunications						
	network						
RPX	Session based resource	United	10902634	07/29/2004	7929443	04/19/2011	Granted
Clearinghouse	allocation in a core or	States of					
LLC	edge networking	America					
RPX	device Network management	United	10911378	08/04/2004	8949391	02/03/2015	Granted
Clearinghouse	across a NAT or	States of	10711570	00/04/2004	0747571	02/03/2013	Granicu
LLC	firewall	America					
RPX	Method and apparatus	United	10922709	08/20/2004	9075753	07/07/2015	Granted
Clearinghouse	for managing	States of					
LLC	interfaces on a network	America					
RPX	element Apparatus for	United	10925943	08/26/2004	7245798	07/17/2007	Granted
Clearinghouse	redirecting optical	States of	10723343	00/20/2004	1273130	07/17/2007	Granicu
LLC	signals in free space	America					
RPX	System and method for	United	10926294	08/26/2004	7197213	03/27/2007	Granted
Clearinghouse	controlling deflection	States of					
LLC	of optical beams	America					
RPX	Method and system for	United States of	10929461	08/31/2004	7936881	05/03/2011	Granted
Clearinghouse LLC	transmitting signaling information over a data	States of America					
LLC	transport network						
		** 1. 1	100000000	00/00/2004	7212502	10/05/0005	
RPX	Method and apparatus	United	10932373	08/09/2004	7313592	12/25/2007	Granted

Clearinghouse	for providing user	States of	No.				
LLC	specific web-based help in a distributed system environment	America					
RPX Clearinghouse LLC	Method and apparatus for open management of multi-media services	United States of America	10944565	09/17/2004	8862570	10/14/2014	Granted
RPX Clearinghouse LLC	Temporal-spatial burst switching	United States of America	10952619	09/29/2004	8064341	11/22/2011	Granted
RPX Clearinghouse LLC	Preventing illicit communications	United States of America	10954049	09/29/2004	8477605	07/02/2013	Granted
RPX Clearinghouse LLC	System, device, and method for address reporting in a distributed communication environment	United States of America	10963779	10/12/2004	7203176	04/10/2007	Granted
RPX Clearinghouse LLC	Multi-hop wireless communications system and method	United States of America	10968518	10/19/2004	8908609	12/09/2014	Granted
RPX Clearinghouse LLC	Remote telephony service management	United States of America	10970975	10/22/2004	9049289	06/02/2015	Granted
RPX Clearinghouse LLC	Technique for routing and controlling emergency calls	United States of America	10978385	11/02/2004	7154995	12/26/2006	Granted
RPX Clearinghouse LLC	Method and apparatus to process a call request by establishing calls among devices	United States of America	10980095	11/03/2004	8355393	01/15/2013	Granted
RPX Clearinghouse LLC	Enhanced caller identification using caller readable devices	United States of America	10994542	11/22/2004	7756259	07/13/2010	Granted
RPX Clearinghouse LLC	Media capability selection	United States of America	11018359	12/21/2004	9094256	07/28/2015	Granted
RPX Clearinghouse LLC	Method of displaying nodes and links	United States of America	11024910	12/30/2004	7855978	12/21/2010	Granted
RPX Clearinghouse LLC	Apparatus and method for packet-based media communications	United States of America	11113050	04/25/2005	7983200	07/19/2011	Granted
RPX Clearinghouse LLC	Connectivity fault notification	United States of America	11137015	05/25/2005	8862943	10/14/2014	Granted
RPX Clearinghouse LLC	Elastic traffic marking for multi-priority packet streams in a communications network	United States of America	11142125	06/01/2005	7586848	09/08/2009	Granted
RPX Clearinghouse LLC	Fast optical switch	United States of America	11152926	06/15/2005	7171072	01/30/2007	Granted
RPX Clearinghouse LLC	Backbone provider bridging networks	United States of America	11159065	06/22/2005	8855122	10/07/2014	Granted
RPX Clearinghouse LLC	VLAN support of differentiated services	United States of America	11169718	06/30/2005	8422500	04/16/2013	Granted
RPX	Circulating switch	United States of	11185542	07/21/2005	7856010	12/21/2010	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
Clearinghouse LLC		America	000000000000000000000000000000000000000				
RPX Clearinghouse LLC	Automatic protection switching using link- level redundancy supporting multi- protocol label switching	United States of America	11188989	07/25/2005	8134917	03/13/2012	Granted
RPX Clearinghouse LLC	Secure network using orthogonal frequency division multiplexing spread spectrum communications	United States of America	11236230	09/27/2005	7813409	10/12/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for specifying IP termination in a network element	United States of America	11241612	09/30/2005	7869442	01/11/2011	Granted
RPX Clearinghouse LLC	Multilink trunking for encapsulated traffic	United States of America	11264634	11/01/2005	7697528	04/13/2010	Granted
RPX Clearinghouse LLC	Interfacing between a command line interface-based application program and a remote network device	United States of America	11265759	11/02/2005	7707269	04/27/2010	Granted
RPX Clearinghouse LLC	Using interactive communication session cookies in web sessions	United States of America	11268845	11/08/2005	8756326	06/17/2014	Granted
RPX Clearinghouse LLC	Enabling improved protection of consumer information in electronic transactions	United States of America	11269358	11/08/2005	8417633	04/09/2013	Granted
RPX Clearinghouse LLC	Method for defending against denial-of- service attack on the IPV6 neighbor cache	United States of America	11280428	11/17/2005	8161549	04/17/2012	Granted
RPX Clearinghouse LLC	Secure, differentiated reading of sensors and RFID tags	United States of America	11287131	11/23/2005	8036956	10/11/2011	Granted
RPX Clearinghouse LLC	Protection switching arrangement for an optical switching system	United States of America	11287259	11/28/2005	7212739	05/01/2007	Granted
RPX Clearinghouse LLC	Cross-connect using ethernet multiplexors for a simple metro ethernet network	United States of America	11287583	11/23/2005	7876749	01/25/2011	Granted
RPX Clearinghouse LLC	RF combining device and method	United States of America	11291300	12/01/2005	7292121	11/06/2007	Granted
RPX Clearinghouse LLC	Method and apparatus for assigning and allocating network resources to packet- based virtual private networks	United States of America	11295921	12/07/2005	7787494	08/31/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for increasing the scalability of Ethernet OAM	United States of America	11297822	12/08/2005	7936680	05/03/2011	Granted
RPX	Methods and systems	United	11298673	12/12/2005	7747019	06/29/2010	Granted

Cleaninghause	for communicating	States of	No.				
Clearinghouse LLC	for communicating over a quantum channel	States of America					
RPX Clearinghouse LLC	Telephony and data network services at a telephone	United States of America	11300997	12/15/2005	7660295	02/09/2010	Granted
RPX Clearinghouse LLC	System, device, and method for supporting virtual private networks in a label switched communication network	United States of America	11301162	12/12/2005	7174388	02/06/2007	Granted
RPX Clearinghouse LLC	Multi-mode endpoint in a communication network system and methods thereof	United States of America	11301746	12/13/2005	7986684	07/26/2011	Granted
RPX Clearinghouse LLC	Method and system for enhancing collaboration	United States of America	11303989	12/19/2005	8929528	01/06/2015	Granted
RPX Clearinghouse LLC	Compact floating point delta encoding for complex data	United States of America	11303990	12/19/2005	8972359	03/03/2015	Granted
RPX Clearinghouse LLC	Method and apparatus for providing availability metrics for measurement and management of ethernet services	United States of America	11304019	12/15/2005	8045475	10/25/2011	Granted
RPX Clearinghouse LLC	System and method for validation and enforcement of application security	United States of America	11304043	12/15/2005	8818897	08/26/2014	Granted
RPX Clearinghouse LLC	Method and architecture for a scalable application and security switch using multi-level load balancing	United States of America	11305555	12/16/2005	7672236	03/02/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for detecting unsolicited multimedia communications	United States of America	11305951	12/19/2005	8121839	02/21/2012	Granted
RPX Clearinghouse LLC	Initiating outgoing calls to a VoP terminal from a POTS-based telephone terminal	United States of America	11312613	12/20/2005	8964725	02/24/2015	Granted
RPX Clearinghouse LLC	Method and system for originating connectivity fault management (CFM) frames on non-CFM aware switches	United States of America	11313637	12/21/2005	8085670	12/27/2011	Granted
RPX Clearinghouse LLC	Method and apparatus for detecting a fault on an optical fiber	United States of America	11314678	12/21/2005	8699354	04/15/2014	Granted
RPX Clearinghouse LLC	Key negotiation and management for third party access to a secure communication session	United States of America	11325818	01/05/2006	7975140	07/05/2011	Granted
RPX Clearinghouse LLC	Virtual routers for GMPLS networks	United States of America	11338118	01/23/2006	7995569	08/09/2011	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Planning routes and allocating identifiers to routes in a managed frame-forwarding network	United States of America	11343996	01/31/2006	7756035	07/13/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for controlling calling- party identification	United States of America	11379595	04/21/2006	7995727	08/09/2011	Granted
RPX Clearinghouse LLC	Generating a comfort indicator at an originating terminal	United States of America	11388379	03/24/2006	8902879	12/02/2014	Granted
RPX Clearinghouse LLC	Method and system for phase and byte alignment on a multiplexed high speed bus	United States of America	11391537	03/28/2006	7742507	06/22/2010	Granted
RPX Clearinghouse LLC	Session initiation protocol enabled set- top device	United States of America	11394693	03/31/2006	8069252	11/29/2011	Granted
RPX Clearinghouse LLC	System and method for notifying participants of topics in an ongoing meeting or conference	United States of America	11395601	03/31/2006	8849907	09/30/2014	Granted
RPX Clearinghouse LLC	Method, system and apparatus for identifying an emergency service location of an internet protocol telephony client	United States of America	11395834	03/31/2006	7826598	11/02/2010	Granted
RPX Clearinghouse LLC	Expedited resource negotiation in SIP	United States of America	11432624	05/12/2006	8059656	11/15/2011	Granted
RPX Clearinghouse LLC	Time-value curves to provide dynamic QoS for time sensitive file transfer	United States of America	11469404	08/31/2006	8146090	03/27/2012	Granted
RPX Clearinghouse LLC	Workflow locked loops to enable adaptive networks to change a policy statement responsive to mission level exceptions and reconfigure the software-controllable network responsive to network level exceptions	United States of America	11469422	08/31/2006	9129253	09/08/2015	Granted
RPX Clearinghouse LLC	Double phase encoding quantum key distribution	United States of America	11481826	07/07/2006	7787628	08/31/2010	Granted
RPX Clearinghouse LLC	Any-point-to-any- point (AP2AP) quantum key distribution protocol for optical ring network	United States of America	11481906	07/07/2006	7760883	07/20/2010	Granted
RPX Clearinghouse LLC	Method and device for determining location-enhanced presence information for entities subscribed to a communications system	United States of America	11502509	08/11/2006	8521186	08/27/2013	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	System and method for responding to failure of a hardware locus at a communication installation	United States of America	11523195	09/18/2006	8074111	12/06/2011	Granted
RPX Clearinghouse LLC	Method and system for policy-based address allocation for secure unique local networks	United States of America	11524215	09/20/2006	7764677	07/27/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for enabling commuter groups	United States of America	11525615	09/22/2006	7974771	07/05/2011	Granted
RPX Clearinghouse LLC	System and method for transparent single signon	United States of America	11526789	09/25/2006	8327427	12/04/2012	Granted
RPX Clearinghouse LLC	Closed captioning language translation	United States of America	11531562	09/13/2006	8045054	10/25/2011	Granted
RPX Clearinghouse LLC	Multi-rate transparent MUX for optical communications networks	United States of America	11533932	09/21/2006	7809017	10/05/2010	Granted
RPX Clearinghouse LLC	High-speed digital signal processing in a coherent optical receiver	United States of America	11533940	09/21/2006	7769305	08/03/2010	Granted
RPX Clearinghouse LLC	Web services interface	United States of America	11536139	09/28/2006	8782248	07/15/2014	Granted
RPX Clearinghouse LLC	Communication methods and apparatus for online games	United States of America	11537040	09/29/2006	8696455	04/15/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for transporting ethernet services	United States of America	11540023	09/30/2006	7746892	06/29/2010	Granted
RPX Clearinghouse LLC	Method of providing secure groups using a combination of group and pair-wise keying	United States of America	11552230	10/24/2006	7900250	03/01/2011	Granted
RPX Clearinghouse LLC	Source selection for conference bridges	United States of America	11553750	10/27/2006	7957512	06/07/2011	Granted
RPX Clearinghouse LLC	Peer to peer contact center	United States of America	11563284	11/27/2006	8929533	01/06/2015	Granted
RPX Clearinghouse LLC	GMPLS control of ethernet	United States of America	11580796	10/13/2006	7710901	05/04/2010	Granted
RPX Clearinghouse LLC	System and method for delivering packet data over a multiplicity of communication links	United States of America	11600492	11/16/2006	8976670	03/10/2015	Granted
RPX Clearinghouse LLC	Techniques for implementing logical trunk groups with session initiation protocol (SIP)	United States of America	11608061	12/07/2006	7995561	08/09/2011	Granted
RPX Clearinghouse LLC	Serving gateway proxies for non-SIP speakers in a next generation network	United States of America	11610788	12/14/2006	9008081	04/14/2015	Granted
RPX Clearinghouse	System and method for providing power	United States of	11613313	12/20/2006	8073554	12/06/2011	Granted

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LLC	management in a sensor network	America					
RPX Clearinghouse LLC	Automatic configuration of telecommunication station sets	United States of America	11613493	12/20/2006	9042905	05/26/2015	Granted
RPX Clearinghouse LLC	Call server selection	United States of America	11615294	12/22/2006	8792625	07/29/2014	Granted
RPX Clearinghouse LLC	Personalized conference bridge	United States of America	11615387	12/22/2006	8164615	04/24/2012	Granted
RPX Clearinghouse LLC	Interactive content for click-to-call calls	United States of America	11615435	12/22/2006	8081744	12/20/2011	Granted
RPX Clearinghouse LLC	Metadata extraction and re-insertion and improved transcoding in digital media systems	United States of America	11693916	03/30/2007	7913277	03/22/2011	Granted
RPX Clearinghouse LLC	Multicast implementation in a link state protocol controlled ethernet network	United States of America	11702263	02/05/2007	8059647	11/15/2011	Granted
RPX Clearinghouse LLC	Modular high-capacity switch	United States of America	11743805	05/03/2007	7843905	11/30/2010	Granted
RPX Clearinghouse LLC	Associative search engine	United States of America	11767563	06/25/2007	7895183	02/22/2011	Granted
RPX Clearinghouse LLC	Associative search engine	United States of America	11767584	06/25/2007	7895178	02/22/2011	Granted
RPX Clearinghouse LLC	Associative search engine	United States of America	11767632	06/25/2007	7933883	04/26/2011	Granted
Ameritech Corporation / Northern Telecom Limited / RPX Clearinghouse	Method and system for providing enhanced caller identification	United States of America	11789658	04/25/2007	8139732	03/20/2012	Granted
LLC RPX Clearinghouse LLC	Dynamic establishment of virtual circuits using multi- segment pseudowires	United States of America	11814290	11/14/2005	8045492	10/25/2011	Granted
RPX Clearinghouse LLC	Call features for automatic call distribution system	United States of America	11827142	07/10/2007	7885400	02/08/2011	Granted
RPX Clearinghouse LLC	System and method for detectng malicious mail from spam zombies	United States of America	11850340	09/05/2007	9083556	07/14/2015	Granted
RPX Clearinghouse LLC	Method and system for looping back traffic in QIQ ethernet rings and 1:1 protected PBT trunks	United States of America	11955888	12/13/2007	8085676	12/27/2011	Granted
RPX Clearinghouse LLC	Integrated web portal for facilitating communications with	United States of America	11960286	12/19/2007	8756283	06/17/2014	Granted

	an intended party						
RPX	Evolution of ethernet	United	11962476	12/21/2007	8005081	08/23/2011	Granted
Clearinghouse LC	networks	States of America					
RPX Clearinghouse	Tie-breaking in shortest path	United States of	11964478	12/26/2007	7911944	03/22/2011	Granted
LC	determination	America					
RPX Clearinghouse LLC	Method and apparatus for designing, updating and operating a network based on quality of experience	United States of America	11978314	10/29/2007	8280994	10/02/2012	Grante
RPX Clearinghouse LLC	Forwarding plane data communications channel for ethernet transport networks	United States of America	11996561	09/12/2006	7821949	10/26/2010	Granted
RPX Clearinghouse LLC	Segmented network identity management	United States of America	11996735	07/28/2006	9009778	04/14/2015	Granted
RPX Clearinghouse LLC	Circuit board with signal layers of different dimensions to communicate signals of different frequencies	United States of America	12002361	12/17/2007	9036364	05/19/2015	Granteo
RPX Clearinghouse LLC	Low noise oscillator and method	United States of America	12006285	12/31/2007	7911283	03/22/2011	Grante
RPX Clearinghouse LLC	Method and apparatus for managing the interconnection between network domains	United States of America	12006291	12/31/2007	8854982	10/07/2014	Grante
PX Clearinghouse LLC	Border gateway protocol extended community attribute for layer-2 and layer-3 virtual private networks using 802.1ah-based tunnels	United States of America	12015685	01/17/2008	8027347	09/27/2011	Grante
RPX Clearinghouse .LC	Method and system for telecommunication apparatus fast fault notification	United States of America	12041057	03/03/2008	7953016	05/31/2011	Grante
RPX Clearinghouse LLC	Regulating data-burst transfer	United States of America	12051317	03/19/2008	7817543	10/19/2010	Grante
RPX Elearinghouse LLC	Method for establishing multi segment pseudowire across domains having different pseudowire signaling protocol	United States of America	12064477	08/25/2006	9124486	09/01/2015	Grante
RPX Clearinghouse LLC	Label switched path OAM wrapper	United States of America	12110677	04/28/2008	8024457	09/20/2011	Grante
RPX Clearinghouse LLC	Method and system for weight and rate scheduling	United States of America	12118410	05/09/2008	7969884	06/28/2011	Grante
RPX Clearinghouse LLC	Virtual burst-switching networks	United States of America	12135526	06/09/2008	7889723	02/15/2011	Grante
RPX							

LLC	controlled ethernet	America					
RPX Clearinghouse LLC	network  Method and apparatus for discovering, negotiating, and provisioning end-to- end SLAs between multiple service	United States of America	12152085	05/12/2008	7924715	04/12/2011	Granted
RPX Clearinghouse LLC	provider domains  Multi-touch touchscreen incorporating pen tracking	United States of America	12168678	07/07/2008	9268413	02/23/2016	Granted
RPX Clearinghouse LLC	Multi-touch touchscreen incorporating pen tracking	United States of America	12168688	07/07/2008	8842076	09/23/2014	Granted
RPX Clearinghouse LLC	Differential forwarding in address-based carrier networks	United States of America	12196909	08/22/2008	8194668	06/05/2012	Granted
RPX Clearinghouse LLC	Bit-stream huffman coding for data compression	United States of America	12204788	09/04/2008	7737870	06/15/2010	Granted
RPX Clearinghouse LLC	Implementation of VPNs over a link state protocol controlled ethernet network	United States of America	12215350	06/26/2008	7894450	02/22/2011	Granted
RPX Clearinghouse LLC	Switch method for switching class amplifiers	United States of America	12218147	07/11/2008	7872529	01/18/2011	Granted
RPX Clearinghouse LLC	Extended private LAN	United States of America	12241312	09/30/2008	8045570	10/25/2011	Granted
RPX Clearinghouse LLC	IP network and performance monitoring using ethernet OAM	United States of America	12249941	10/12/2008	7898965	03/01/2011	Granted
RPX Clearinghouse LLC	Automatic MEP provisioning in a link state controlled Ethernet network	United States of America	12249944	10/12/2008	7996559	08/09/2011	Granted
RPX Clearinghouse LLC	Method and system for weighted fair queuing	United States of America	12250681	10/14/2008	7995597	08/09/2011	Granted
RPX Clearinghouse LLC	Provisioned provider link state bridging (PLSB) with routed back-up	United States of America	12259560	10/28/2008	9100269	08/04/2015	Granted
RPX Clearinghouse LLC	Provider link state bridging (PLSB) computation method	United States of America	12259650	10/28/2008	8005016	08/23/2011	Granted
RPX Clearinghouse LLC	Break before make forwarding information base (FIB) population for multicast	United States of America	12260558	10/29/2008	7924836	04/12/2011	Granted
RPX Clearinghouse LLC	Age biased distributed collision resolution without clocks	United States of America	12276623	11/24/2008	7941531	05/10/2011	Granted
RPX Clearinghouse LLC	Multi-protocol support over Ethernet packet- switched networks	United States of America	12278294	02/23/2007	8331243	12/11/2012	Granted
RPX	Network data routing	United	12341603	12/22/2008	7760623	07/20/2010	Grantec

			No.				Status
Clearinghouse LLC	protection cycles for automatic protection switching	States of America					
RPX Clearinghouse LLC	Selective database replication	United States of America	12341845	12/22/2008	9239767	01/19/2016	Granted
RPX Clearinghouse LLC	Collaboration agent	United States of America	12344914	12/29/2008	8060563	11/15/2011	Granted
RPX Clearinghouse LLC	Bandwidth efficient method and system for obscuring the existence of encryption in a communications channel	United States of America	12345186	12/29/2008	8050404	11/01/2011	Granted
RPX Clearinghouse LLC	Techniques for time transfer via signal encoding	United States of America	12347314	12/31/2008	7995621	08/09/2011	Granted
RPX Clearinghouse LLC	Method and apparatus for securing fiber in an optical network	United States of America	12350333	01/08/2009	8000601	08/16/2011	Granted
RPX Clearinghouse LLC	High-speed scheduling apparatus for a switching node	United States of America	12365995	02/05/2009	7983273	07/19/2011	Granted
RPX Clearinghouse LLC	Link bundle co-routed VCAT via RSVP message bundling	United States of America	12394405	02/27/2009	7948885	05/24/2011	Granted
RPX Clearinghouse LLC	Service instance applied to MPLS networks	United States of America	12412589	03/27/2009	8811388	08/19/2014	Granted
RPX Clearinghouse LLC	Enhanced communication bridge	United States of America	12420976	04/09/2009	9191234	11/17/2015	Granted
RPX Clearinghouse LLC	Flow-rate-regulated burst switches	United States of America	12427106	04/21/2009	8031598	10/04/2011	Granted
RPX Clearinghouse LLC	Geographic redundancy for call servers in a cellular system based on a bearer-independent core network	United States of America	12463634	05/11/2009	7995564	08/09/2011	Granted
RPX Clearinghouse LLC	Optical switch with power equalization	United States of America	12476693	06/02/2009	7995919	08/09/2011	Granted
RPX Clearinghouse LLC	Hitless manual cryptographic key refresh in secure packet networks	United States of America	12482187	06/10/2009	8082441	12/20/2011	Granted
RPX Clearinghouse LLC	Method and apparatus for simulating IP multinetting	United States of America	12490180	06/23/2009	8064458	11/22/2011	Granted
RPX Clearinghouse LLC	Utilizing betweenness to determine forwarding state in a routed network	United States of America	12490187	06/23/2009	8040906	10/18/2011	Granted
RPX Clearinghouse LLC	Mobile fast alerting	United States of America	12492565	06/26/2009	8208968	06/26/2012	Granted
RPX Clearinghouse LLC	Circulating switch	United States of America	12493801	06/29/2009	7961649	06/14/2011	Granteo

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RPX Clearinghouse LLC	Device programmable network based packet filter	United States of America	12503266	07/15/2009	8966607	02/24/2015	Granted
RPX Clearinghouse LLC	Elastic traffic marking for multi-priority packet streams in a communications network	United States of America	12512363	07/30/2009	8179800	05/15/2012	Granted
RPX Clearinghouse LLC	Distributed authentication, authorization and accounting	United States of America	12518636	12/12/2007	8763088	06/24/2014	Granted
RPX Clearinghouse LLC	Telecommunications network	United States of America	12549584	08/28/2009	7983202	07/19/2011	Granted
RPX Clearinghouse LLC	Media proxy able to detect blocking	United States of America	12572007	10/01/2009	8000236	08/16/2011	Granted
Carleton University / RPX Clearinghouse LLC	Transcoders and mixers for voice-over-IP conferencing	United States of America	12587591	10/09/2009	8077636	12/13/2011	Granted
RPX Clearinghouse LLC	Recursive identification of individuals for casual collaborative conferencing	United States of America	12605168	10/23/2009	7860229	12/28/2010	Granted
RPX Clearinghouse LLC	Method and system for configuring a connection-oriented packet network over a wavelength division multiplexed optical network	United States of America	12609039	10/30/2009	7925161	04/12/2011	Granted
RPX Clearinghouse LLC	Distributed connection establishment and restoration	United States of America	12612869	11/05/2009	8750141	06/10/2014	Granted
RPX Clearinghouse LLC	Secure remote access public communication environment	United States of America	12638556	12/15/2009	8893260	11/18/2014	Granted
RPX Clearinghouse LLC	System and method for translating application program network service requests into actions and performing those actions through the management and/or control plane responsive to previously defined policies and previous requests by the same or another application program	United States of America	12643936	12/21/2009	7984154	07/19/2011	Granted
RPX Clearinghouse LLC	Telephony and data network services at a telephone	United States of America	12646404	12/23/2009	8964727	02/24/2015	Granted
RPX Clearinghouse LLC	Verification of configuration information in BGP VPNs	United States of America	12649562	12/30/2009	8266322	09/11/2012	Granted
RPX	Multi-case enabled	United	12661895	03/24/2010	8024474	09/20/2011	Granted

Clearinghouse	address resolution	States of					
LLC	protocol	America					
RPX Clearinghouse LLC	Method and architecture for a scalable application and security switch using multi-level load balancing	United States of America	12685505	01/11/2010	8130645	03/06/2012	Granted
RPX Clearinghouse LLC	Method and apparatus for assigning and allocating network resources to layer 1 Virtual Private Networks	United States of America	12723010	03/12/2010	8560697	10/15/2013	Granted
RPX Clearinghouse LLC	Flow admission control in an IP network	United States of America	12728459	03/22/2010	8081571	12/20/2011	Granted
RPX Clearinghouse LLC	Uplink power control scheme for a wireless communication system	United States of America	12741774	11/07/2008	9084205	07/14/2015	Granted
RPX Clearinghouse LLC	Voice optimization in a network having voice over internet protocol communication devices	United States of America	12749270	03/29/2010	8451835	05/28/2013	Granted
RPX Clearinghouse LLC	Method and apparatus for transporting ethernet services	United States of America	12785527	05/24/2010	8085811	12/27/2011	Granted
RPX Clearinghouse LLC	Technique for accommodating electronic components on a multilayer signal routing device	United States of America	12850896	08/05/2010	9008121	04/14/2015	Granted
RPX Clearinghouse LLC	Multi-rate transparent MUX for optical communications networks	United States of America	12877678	09/08/2010	8964782	02/24/2015	Granted
RPX Clearinghouse LLC	Multicast implementation in a link state protocol controlled Ethernet network	United States of America	12910477	10/22/2010	8867366	10/21/2014	Granted
RPX Clearinghouse LLC	Recursive identification of individuals for casual collaborative conferencing	United States of America	12950749	11/19/2010	8442199	05/14/2013	Granted
RPX Clearinghouse LLC	Dual mode base station	United States of America	12958470	12/02/2010	8971220	03/03/2015	Granted
RPX Clearinghouse LLC	Mechanism to divert an IP flow over a non-IP transport	United States of America	12992122	05/12/2009	9055330	06/09/2015	Granted
RPX Clearinghouse LLC	Controlling allocation of a portion of a shared channel to use for control information	United States of America	12993322	06/30/2009	9078191	07/07/2015	Granted
RPX Clearinghouse LLC	Implementation of VPNs over a link state protocol controlled Ethernet network	United States of America	13004979	01/12/2011	8971332	03/03/2015	Granted
	Lincinct network						

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LLC	network telephony	America	12012522	01/04/0011	001.121.5	0.1/0.1/0.01.5	
RPX	Cross-connect using	United	13012522	01/24/2011	9014217	04/21/2015	Granted
Clearinghouse	ethernet multiplexors	States of America					
LLC	for a simple metro	America					
DDY	ethernet network	TT 14 1	12022022	02/00/2011	0.600220	04/15/2014	C
RPX	Tie-breaking in	United	13023823	02/09/2011	8699329	04/15/2014	Grantec
Clearinghouse	shortest path	States of America					
LLC	determination						
RPX	Method and apparatus	United	13044598	03/10/2011	8934357	01/13/2015	Granteo
Clearinghouse	for discovering,	States of					
LLC	negotiating, and	America					
	provisioning end-to-						
	end SLAs between						
	multiple service						
	provider domains						
RPX	Protection for provider	United	13044905	03/10/2011	9106524	08/11/2015	Grantec
Clearinghouse	backbone bridge traffic	States of					
LLC	engineering	America					
RPX	Ethernet OAM	United	13047128	03/14/2011	8953456	02/10/2015	Grante
Clearinghouse	performance	States of					
LLC	management	America					
RPX	Method and system for	United	13051030	03/18/2011	8824887	09/02/2014	Granted
Clearinghouse	configuring a	States of					
LLC	connection-oriented	America					
	packet network over a						
	wavelength division						
	multiplexed optical						
	network						
RPX	Method and apparatus	United	13078503	04/01/2011	8811181	08/19/2014	Granted
Clearinghouse	for increasing the	States of					
LLC	scalability of the	America					
LLC	ethernet OAM						
RPX	Method and system for	United	13091870	04/21/2011	8964981	02/24/2015	Granted
Clearinghouse	transmitting signaling	States of	15051070	01/21/2011	0501501	02/21/2013	Granic
LLC	information over a data	America					
LLC	transport network						
RPX	Multi-protocol support	United	13110380	05/18/2011	8483229	07/09/2013	Granted
Clearinghouse	over ethernet packet-	States of	13110300	03/16/2011	0403223	07/03/2013	Grance
LLC	switched networks	America					
RPX	Method and system for	United	13119630	09/18/2009	9036663	05/19/2015	Granted
	space code transmit	States of	13119030	09/16/2009	9030003	03/19/2013	Granice
Clearinghouse		America					
LLC	diversity of PUCCH		12157170	0.6 (0.0 (3.0.1.1	0042212	01/05/0015	<u> </u>
RPX	System and method for	United	13156178	06/08/2011	8943212	01/27/2015	Granteo
Clearinghouse	translating application	States of America					
LLC	program network	Ашепса					
	service requests into						
	actions and performing						
	those actions through						
	the management and/or						
	control plane						
	responsive to						
	previously defined						
	policies and previous						
	requests by the same or						
	another application						
	program						
RPX	Multi-mode endpoint	United	13162496	06/16/2011	8315251	11/20/2012	Grante
Clearinghouse	in a communication	States of					
LLC	network system and	America					
-	methods thereof						
RPX	Method and system for	United	13169504	06/27/2011	8711871	04/29/2014	( trante
RPX Clearinghouse	Method and system for weighted fair queuing	United States of	13169504	06/27/2011	8711871	04/29/2014	Grante

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Automatic MEP provisioning in a link state controlled ethernet network	United States of America	13173807	06/30/2011	8918538	12/23/2014	Granted
RPX Clearinghouse LLC	Geographic redundancy for call servers in a cellular system based on a bearer-independent core network	United States of America	13180045	07/11/2011	8576700	11/05/2013	Granted
RPX Clearinghouse LLC	Optical switch with power equalization	United States of America	13205115	08/08/2011	8526813	09/03/2013	Granted
RPX Clearinghouse LLC	Label switched path OAM wrapper	United States of America	13212327	08/18/2011	8971189	03/03/2015	Granted
RPX Clearinghouse LLC	Autodiscovery for virtual networks	United States of America	13226872	09/07/2011	9154463	10/06/2015	Granted
RPX Clearinghouse LLC	Methods and systems for providing a logical network layer for delivery of input/output data	United States of America	13256503	03/18/2010	8842677	09/23/2014	Granted
RPX Clearinghouse LLC	Method and architecture for a scalable application and security switch using multi-level load balancing	United States of America	13267667	10/06/2011	8477613	07/02/2013	Granted
RPX Clearinghouse LLC	Technique for admission control of packet flows	United States of America	13269667	10/10/2011	8531948	09/10/2013	Granted
RPX Clearinghouse LLC	Method and apparatus for providing availability metrics for measurement and managment of ethernet services	United States of America	13269724	10/10/2011	8520530	08/27/2013	Granted
RPX Clearinghouse LLC	Expedited resource negotiation in SIP	United States of America	13275896	10/18/2011	8948186	02/03/2015	Granted
RPX Clearinghouse LLC	Dynamic establishment of virtual circuits multisegment pseudowires	United States of America	13275956	10/18/2011	8787218	07/22/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for simulating IP multinetting	United States of America	13286241	11/01/2011	8699492	04/15/2014	Granted
RPX Clearinghouse LLC	System and method for responding to failure of a hardware locus at a communication installation	United States of America	13296828	11/15/2011	8954795	02/10/2015	Granted
RPX Clearinghouse LLC	Hitless manual cryptographic key refresh in secure packet networks	United States of America	13299997	11/18/2011	8631228	01/14/2014	Granted
RPX Clearinghouse LLC	Multicast implementation in a link state protocol controlled ethernet network	United States of America	13302704	11/22/2011	9008088	04/14/2015	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Interactive content for click-to-call calls	United States of America	13303566	11/23/2011	8477919	07/02/2013	Granted
RPX Clearinghouse LLC	Flow admission control in an IP network	United States of America	13330042	12/19/2011	8908509	12/09/2014	Granted
RPX Clearinghouse LLC	Technique for enabling a plurality of software components to communicate in a software component matrix environment	United States of America	13334375	12/22/2011	8341218	12/25/2012	Granted
RPX Clearinghouse LLC	System and method for automatically managing participation at a meeting or conference	United States of America	13337769	12/27/2011	9024993	05/05/2015	Granted
RPX Clearinghouse LLC	Apparatus for accelerating failover of VPN traffic in an MPLS provider network	United States of America	13360860	01/30/2012	8493845	07/23/2013	Granted
RPX Clearinghouse LLC	Method for accelerating failover of VPN traffic in an MPLS provider network	United States of America	13360867	01/30/2012	8625414	01/07/2014	Granted
RPX Clearinghouse LLC	Protocol for clock distribution and loop resolution	United States of America	13362319	01/31/2012	8755308	06/17/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for telecommunications network performance anomaly events detection and notification	United States of America	13383971	07/15/2010	8862119	10/14/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for detecting unsolicited multimedia communications	United States of America	13400274	02/20/2012	8457960	06/04/2013	Granted
RPX Clearinghouse LLC	Telephone to computational device association	United States of America	13404508	02/24/2012	8861696	10/14/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for direct frame switching using frame contained destination information	United States of America	13406145	02/27/2012	9019963	04/28/2015	Granted
RPX Clearinghouse LLC	Distributed storage of routing information in a link state protocol controlled network	United States of America	13420720	03/15/2012	8687522	04/01/2014	Granted
RPX Clearinghouse LLC	Method for defending against denial-of- service attack on the IPV6 neighbor cache	United States of America	13421390	03/15/2012	8869278	10/21/2014	Granted
RPX Clearinghouse LLC	Time-value curves to provide dynamic QoS for time sensitive file transfers	United States of America	13423774	03/19/2012	8949846	02/03/2015	Granted
RPX Clearinghouse	Recursive identification of	United States of	13429128	03/23/2012	8625768	01/07/2014	Granted

LC	individuals for casual	America	No.				Status
	collaborative conferencing						
RPX	Recursive	United	13429142	03/23/2012	8542811	09/24/2013	Grante
Clearinghouse	identification of	States of					
LC	individuals for casual	America					
	collaborative						
RPX	Method and apparatus	United	13429483	03/26/2012	8990587	03/24/2015	Grante
learinghouse	for secure transport and	States of	13 125 105	03/20/2012	0,70,50,7	03/21/2013	Granic
LC	storage of surveillance	America					
	video						
XPX	Personalized	United	13439987	04/05/2012	8995636	03/31/2015	Grante
learinghouse LC	conference bridge	States of America					
PX	Techniques for routing	United	13451776	04/20/2012	9001829	04/07/2015	Grante
learinghouse	data between network	States of	13431770	04/20/2012	9001029	04/07/2015	Granic
LC	areas	America					
PX	Elastic traffic marking	United	13459645	04/30/2012	8498209	07/30/2013	Grante
learinghouse	for multi-priority	States of					
LC	packet streams in a	America					
	communications network						
PX	Apparatus and method	United	13473181	05/16/2012	8949460	02/03/2015	Grante
learinghouse	for layer-2 and layer-3	States of					
LC	VPN discovery	America					
PX	Method and apparatus	United	13474210	05/17/2012	8824662	09/02/2014	Grante
learinghouse LC	for interfacing a customer with a call	States of America					
ALC.	center	111101101					
RPX	Enhanced caller	United	13475480	05/18/2012	8873724	10/28/2014	Grante
Clearinghouse	identification using	States of					
LC	caller readable devices	America	10.4550.66	0.5/0.3/0.1.3	05(1000	0.6/0.4/0.01.4	<u> </u>
RPX Elearinghouse	Tie-breaking in shortest path	United States of	13477366	05/22/2012	8761022	06/24/2014	Grante
LC	determination	America					
RPX	System, device and	United	13479925	05/24/2012	8848527	09/30/2014	Grante
learinghouse	method for distributing	States of					
LC	link state information	America					
	in a communication						
PX	network  Method and apparatus	United	13493248	06/11/2012	9106446	08/11/2015	Grante
learinghouse	for assigning and	States of	15455246	00/11/2012	7100440	00/11/2015	Granic
LC	allocating network	America					
	resources to packet-						
	based virtual private						
PX.	networks TDOA based	United	13513875	01/22/2010	8818406	08/26/2014	Grante
learinghouse	positioning with	States of	133136/3	01/22/2010	0010400	06/20/2014	Orante
LC	calculation of	America					
	correction factors for						
	compensating the clock						
	offsets of						
	unsynchronized network stations						
PX	Providing improved	United	13523275	06/14/2012	8848612	09/30/2014	Grante
Clearinghouse	post-dial delay at an	States of					
LC	originating terminal	America					
PX	Call prioritization	United States of	13523399	06/14/2012	8953765	02/10/2015	Grante
learinghouse LC	methods in a call center	States of America					
PX	Method and apparatus	United	13526907	06/19/2012	8879424	11/04/2014	Grante
		States of					

LLC	information and the	America	No.				Status
	establishment of	7111101104					
	connectivity across						
RPX	multiple network areas Failure notification in a	United	13528483	06/20/2012	8885490	11/11/2014	Granted
Clearinghouse	network having serially	States of					
LLC	connected nodes	America					
RPX	Mobile fast alerting	United	13531663	06/25/2012	8600453	12/03/2013	Granted
Clearinghouse		States of					
LLC	E 1 1 11 11	America	12520001	07/02/2012	0705517	0.4/00/0014	C . 1
RPX Clearinghouse	Forced hold call handling in a VoP	United States of	13539801	07/02/2012	8705517	04/22/2014	Granted
LLC	environment	America					
RPX	Continuity check	United	13561040	07/29/2012	9059918	06/16/2015	Granted
Clearinghouse	management in a link	States of	13501010	0772372012	3003310	00/10/2015	Granice
LLC	state controlled	America					
	ethernet network						
RPX	Automatic remote	United	13566156	08/03/2012	8478296	07/02/2013	Granted
Clearinghouse	communication using	States of					
LLC	network telephony	America	10.50.550.0	00/15/0010	0051885	10/11/1901	
RPX	Resilient attachment to	United States of	13586620	08/15/2012	8861335	10/14/2014	Granted
Clearinghouse LLC	provider link state bridging (PLSB)	States of America					
LLC	networks	7 Interrea					
RPX	Method and apparatus	United	13588126	08/17/2012	9059920	06/16/2015	Granted
Clearinghouse	for selecting between	States of	13500120	00/1//2012	3003320	00/10/2015	Granice
LLC	available neighbors in a	America					
	RAPID alternate path						
	calculation						
RPX	Method and apparatus	United	13589372	08/20/2012	8750820	06/10/2014	Granted
Clearinghouse	for selecting between	States of America					
LLC	multiple equal cost paths	America					
RPX	Method and apparatus	United	13595011	08/27/2012	9124512	09/01/2015	Granted
Clearinghouse	for simplifying the	States of					
LLC	computation of	America					
	alternate network paths						
RPX	State information and	United	13599461	08/30/2012	8837497	09/16/2014	Granted
Clearinghouse LLC	routing table updates in	States of America					
LLC	large scale data networks	America					
RPX	Verification of	United	13602266	09/03/2012	8554901	10/08/2013	Granted
Clearinghouse	configuration	States of	13002200	07/03/2012	0334701	10/00/2013	Granicu
LLC	information in BGP	America					
	VPNs						
RPX	Secure group	United	13645137	10/04/2012	9071588	06/30/2015	Granted
Clearinghouse	communications	States of					
LLC		America					
RPX	Method and apparatus	United	13663544	10/30/2012	8694500	04/08/2014	Granted
Clearinghouse	for document matching	States of America					
LLC RPX	Multi-mode endpoint	United	13665072	10/31/2012	8717950	05/06/2014	Granted
Clearinghouse	in a communication	States of	150050/2	10/31/2012	0/1/930	03/00/2014	Granico
LLC	network system and	America					
	methods thereof						
RPX	Handoff of a mobile	United	13666197	11/01/2012	8937859	01/20/2015	Granted
Clearinghouse	station between packet-	States of					
LLC	switched and circuit-	America					
	switched wireless						
201/	domains	TT 14 *	10.666301	11/01/2012	0007050	01/00/2017	<u> </u>
RPX	Handoff of a mobile	United	13666201	11/01/2012	8937860	01/20/2015	Grantec
Clearinghouse	station between packet-	States of					

	switched wireless						
RPX	domains Scaling OAM for	United	13676472	11/14/2012	8854975	10/07/2014	Granted
Clearinghouse LC	point-to-point trunking	States of America	130/04/2	11/14/2012	00349/3	10/07/2014	Granie
RPX Clearinghouse	Differential forwarding in address-based carrier networks	United States of America	13683672	11/21/2012	8976793	03/10/2015	Granted
LLC RPX Clearinghouse LLC	Method and Apparatus for Increasing the Output of a Cryptographic System	United States of America	13693312	12/04/2012	9331853	05/03/2016	Granted
RPX Clearinghouse LLC	Web based access to video associated with calls	United States of America	13713880	12/13/2012	8988481	03/24/2015	Granteo
RPX Clearinghouse LLC	Method and system for packet discard precedence for video transport	United States of America	13722074	12/20/2012	8717897	05/06/2014	Granted
RPX Clearinghouse LLC	Technique for enabling a plurality of software components to communicate in a software component matrix environment	United States of America	13724017	12/21/2012	8706806	04/22/2014	Granteo
RPX Clearinghouse LLC	Security bridging	United States of America	13726894	12/26/2012	8959610	02/17/2015	Grante
RPX Clearinghouse LLC	Method to process a call request	United States of America	13740759	01/14/2013	9001818	04/07/2015	Grante
RPX Clearinghouse LLC	Method and apparatus for Ethernet data compression	United States of America	13750373	01/25/2013	8934343	01/13/2015	Grante
RPX Clearinghouse LLC	Frequency agile filter using a digital filter and bandstop filtering	United States of America	13751599	01/28/2013	8909185	12/09/2014	Grante
RPX Clearinghouse LLC	Method and apparatus for overlaying whispered audio onto a telephone call	United States of America	13752015	01/28/2013	9112981	08/18/2015	Grante
RPX Clearinghouse LLC	Frequency agile filter using a digital filter and bandstop filtering	United States of America	13754177	01/30/2013	9088344	07/21/2015	Grante
RPX Clearinghouse LLC	Methods for auto- configuring a router on an IP subnet	United States of America	13758452	02/04/2013	8782183	07/15/2014	Grante
RPX Clearinghouse .LC	Monitoring eDC polarization inverse filter coefficients to identify real-time physical intrusion into a core or metro optical network	United States of America	13783710	03/04/2013	9002148	04/07/2015	Grante
RPX Clearinghouse LLC	Rate controlled opitcal burst switching	United States of America	13792825	03/11/2013	8902916	12/02/2014	Grante
RPX Clearinghouse LLC	Socks tunneling for firewall traversal	United States of America	13804239	03/14/2013	8984614	03/17/2015	Grante
RPX Clearinghouse LLC	VLAN support of differentiated services	United States of America	13848578	03/21/2013	9118590	08/25/2015	Grante

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RPX Clearinghouse	Method and apparatus enabling improved	United States of	13858435	04/08/2013	8924290	12/30/2014	Grante
LC	protection of consumer	America					
	information in						
RPX	electronic transactions  Differential timing	United	13873623	04/30/2013	9065627	06/23/2015	Grante
Clearinghouse	transfer over	States of	136/3023	04/30/2013	9003027	00/23/2013	Grante
TC	synchronous ethernet	America					
	using digital frequency						
	generators and control word signaling						
PX	Traffic engineering and	United	13888822	05/07/2013	9130861	09/08/2015	Grante
learinghouse	bandwidth	States of					
LC	management of bundled links	America					
PX	Resource conservation	United	13896810	05/17/2013	9154836	10/06/2015	Grante
learinghouse	for packet television	States of					
LC	services	America					
PX learinghouse	Voice optimization in a network having voice	United States of	13901107	05/23/2013	9264325	02/16/2016	Grante
LC	over internet protocol	America					
•	communication						
73.77	devices	** ** *	1200000	0.6/0.4/2.212	0005515	0=11.12015	
LPX Elearinghouse	Method and apparatus for transporting	United States of	13909635	06/04/2013	9083646	07/14/2015	Grante
LC	Ethernet services	America					
PX	Method and system for	United	13916914	06/13/2013	8811432	08/19/2014	Grante
learinghouse	synchronization	States of America					
LC	between network elements	America					
PX.	Method for operating	United	13922843	06/20/2013	8891439	11/18/2014	Grante
learinghouse	multi-domain provider	States of					
LC PX	ethernet networks Communicating data	America United	13928053	06/26/2013	9025441	05/05/2015	Grante
learinghouse	units in a	States of	13928033	06/26/2013	9023441	03/03/2013	Granie
LC	communications	America					
	network that provides						
PX	failure protection  Interactive content for	United	13928594	06/27/2013	8903069	12/02/2014	Grante
learinghouse	click-to-call calls	States of	15520551	00/2//2013	0,0500	12,02,2011	Grante
LC		America					
PX	Automatic remote	United States of	13929508	06/27/2013	8886159	11/11/2014	Grante
learinghouse LC	communication using network telephony	America					
PX	Parallelizeable	United	13931085	06/28/2013	9054857	06/09/2015	Grante
learinghouse	integrity-aware	States of					
LC PX	encryption technique  Elastic traffic marking	America United	13933305	07/02/2013	8913500	12/16/2014	Grante
learinghouse	for multi-priority	States of	13333303	07/02/2013	0713300	12/10/2014	Grant
LC	packet streams in a	America					
	communications						
PX	network  Multi-protocol support	United	13933330	07/02/2013	8917731	12/23/2014	Grante
learinghouse	over Ethernet packet-	States of	10,00000	0.702/2013	0,111,11	12,23,2011	Stante
LC	switched networks	America					
PX	Application server	United States of	13934506	07/03/2013	9015307	04/21/2015	Grante
learinghouse LC	billing	States of America					
PX	Method and apparatus	United	13947217	07/22/2013	9025747	05/05/2015	Grante
learinghouse	for controlling calling-	States of					
LC	party identification Optical switch with	America United		08/05/2013			Grante
PX			13958806		9014557	04/21/2015	

LLC		America					
RPX Clearinghouse LLC	Provider backbone bridging—provider backbone transport internetworking	United States of America	14021063	09/09/2013	9036641	05/19/2015	Granted
RPX Clearinghouse LLC	Method and apparatus for the fast detection of connectivity loss between devices in a network	United States of America	14024829	10/04/2013	9253220	02/02/2016	Granted
RPX Clearinghouse LLC	Method and apparatus for the fast detection of connectivity loss between devices in a network	United States of America	14025004	09/12/2013	9130964	09/08/2015	Granted
RPX Clearinghouse LLC	Method and apparatus for the fast detection of connectivity loss between devices in a network	United States of America	14026237	09/13/2013	9112882	08/18/2015	Granted
RPX Clearinghouse LLC	Resilient provider link state bridging (PLSB) virtual private LAN service (VPLS) interworking	United States of America	14034698	09/24/2013	9100316	08/04/2015	Granted
RPX Clearinghouse LLC	Link bundle co-routed VCAT via RSVP message bundling	United States of America	14084376	11/19/2013	9118605	08/25/2015	Granted
RPX Clearinghouse LLC	Layer-2 to MPLS service mediation architecture	United States of America	14087211	11/22/2013	9106583	08/11/2015	Granted
RPX Clearinghouse LLC	Method and system for weighted fair queuing	United States of America	14093977	12/02/2013	9042224	05/26/2015	Granted
RPX Clearinghouse LLC	Mobile fast alerting	United States of America	14094286	12/02/2013	9172728	10/27/2015	Granted
RPX Clearinghouse LLC	Border gateway protocol extended community attribute for layer-2 and layer-3 virtual private networks	United States of America	14102278	12/10/2013	9055001	06/09/2015	Granted
RPX Clearinghouse LLC	Distributed failure recovery in a routed ethernet network	United States of America	14109021	12/17/2013	9001647	04/07/2015	Granted
RPX Clearinghouse LLC	Method and apparatus for reducing the contribution of noise to digitally sampled signals	United States of America	14109281	12/17/2013	9059690	06/16/2015	Granted
RPX Clearinghouse LLC	Amplifier linearization using non-standard feedback	United States of America	14131131	07/11/2011	9024690	05/05/2015	Granted
RPX Clearinghouse LLC	Recursive identification of individuals for casual collaborative conferencing	United States of America	14137420	12/20/2013	9137134	09/15/2015	Granted
RPX Clearinghouse LLC	Method for accelerating failover of VPN traffic in an MPLS provider	United States of America	14147896	01/06/2014	9036467	05/19/2015	Granted

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	network						
RPX	Source selection for	United	14165070	01/27/2014	8867722	10/21/2014	Granted
Clearinghouse	conference bridges	States of					
LLC		America					
RPX	Method and system for	United States of	14171009	02/03/2014	9054994	06/09/2015	Granted
Clearinghouse LLC	quality of service support for Ethernet	States of America					
LLC	multiservice	2 inicirca					
	interworking over						
	multiprotocol label						
	switching						
RPX	Protection switching	United	14177865	02/11/2014	8879904	11/04/2014	Granted
Clearinghouse	with transmitter	States of					
LLC	compensation function	America					
RPX	Non-broadcast	United	14179981	02/13/2014	9130855	09/08/2015	Granted
Clearinghouse	multiple access inverse	States of America					
LLC	next hop resolution protocol (INHRP)	America					
RPX	Method and apparatus	United	14185248	02/20/2014	9026533	05/05/2015	Granted
Clearinghouse	for document matching	States of	14103240	02/20/2014	7020333	03/03/2013	Granica
LLC	101 404 41114111 1111111111111111111111	America					
RPX	Controlling allocation	United	14187658	02/24/2014	9077500	07/07/2015	Granted
Clearinghouse	of a portion of a shared	States of					
LLC	channel to use for	America					
	control information						
RPX	Managing alternate site	United	14195188	03/03/2014	9225417	12/29/2015	Granted
Clearinghouse	switching in an optical	States of America					
LLC RPX	communication system		14195320	03/03/2014	8964531	02/24/2015	Cuantad
Clearinghouse	Resilient attachment to provider link state	United States of	14195320	03/03/2014	8904331	02/24/2015	Granted
LLC	bridging (PLSB)	America					
LLC	networks						
RPX	TECHNIQUES FOR	United	14216278	03/17/2014	9344207	05/17/2016	Granted
Clearinghouse	TIME TRANSFER	States of					
LLC	VIA SIGNAL	America					
	ENCODING						
RPX	Methods of	United	14219222	03/19/2014	9065680	06/23/2015	Granted
Clearinghouse	establishing virtual	States of					
LLC	circuits and of	America					
	providing a virtual						
	private network service through a shared						
	network, and provider						
	edge device for such						
	network						
RPX	Method and apparatus	United	14246649	04/07/2014	9118606	08/25/2015	Granted
Clearinghouse	for simulating IP	States of					
LLC	multinetting	America					
RPX	Technique for enabling	United	14257256	04/21/2014	9203909	12/01/2015	Granted
Clearinghouse	a plurality of software	States of					
LLC	components to	America					
	communicate in a software component						
	matrix environment						
RPX	Method and apparatus	United	14267365	05/01/2014	9007917	04/14/2015	Granted
Clearinghouse	for increasing the	States of	2.227300				
LLC	scalability of the	America					
	ethernet OAM						
RPX	Passive optical	United	14287762	05/27/2014	9059798	06/16/2015	Granted
Clearinghouse	loopback	States of					
LLC		America					
RPX	Technique for	United	14290404	05/29/2014	RE46113	08/16/2016	Granted
Clearinghouse	maintaining secure	States of					

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Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
LLC		America					
RPX Clearinghouse LLC	Steering apparatus for a steered vehicle	United States of America	14563035	12/08/2014	9104227	08/11/2015	Granted
RPX Clearinghouse LLC	System for Controlling LED Light Strings	United States of America	14565701	12/10/2014	9510406	11/29/2016	Granted
RPX Clearinghouse LLC	Multi-protocol support over ethernet packet- switched networks	United States of America	14573139	12/17/2014	9106586	08/11/2015	Granted
RPX Clearinghouse LLC	Associative search engine	United States of America	09351747	7/8/1999	US7236969	6/26/2007	Granted
RPX Clearinghouse LLC	Flow admission control in an ip network	United States of America	14563218	12/8/2014	US9172648	10/27/2015	Granted
RPX Clearinghouse LLC	System and method for providing network application performance management in a network	United States of America	11867288	10/4/2007	US9306812	4/5/2016	Granted
RPX Clearinghouse LLC	Method and apparatus for distributing location-based messages in a wireless communication network	United States of America	09195945	11/19/1998	US6505046	1/7/2003	Granted

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Distributed network address translation control	United States of America	13363786	2/1/2012	8788709	7/22/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for using a command design pattern to access and configure network elements	United States of America	09726758	11/29/2000	8782230	7/15/2014	Granted
RPX Clearinghouse LLC	Allocating internet protocol (ip) addresses to nodes in communications networks which use integrated is-is	United States of America	09991386	11/13/2001	8782226	7/15/2014	Granted
RPX Clearinghouse LLC	Monitoring phase non- linearities in an optical communication system	United States of America	14064901	10/28/2013	8781317	7/15/2014	Granted
RPX Clearinghouse LLC	Method for maintaining differentiated services data flow at a network device implementing redundant packet discard security techniques	United States of America	12781908	5/18/2010	8755280	6/17/2014	Granted
RPX Clearinghouse LLC	Optimized scheduling method for delay- sensitive traffic on high speed shared packet data channels	United States of America	12767887	4/27/2010	8750329	6/10/2014	Granted
RPX Clearinghouse LLC	Generic snmp information collection	United States of America	11313898	12/21/2005	8745181	6/3/2014	Granted

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Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Brokering network resources	United States of America	13652109	10/15/2012	8738741	5/27/2014	Granted
RPX Clearinghouse LLC	Mpls/ip pseudo-wire and layer-2 virtual private network resiliency	United States of America	10670568	9/26/2003	8737200	5/27/2014	Granted
RPX Clearinghouse LLC	Ethernet lan service enhancements	United States of America	11024692	12/30/2004	8718057	5/6/2014	Granted
RPX Clearinghouse LLC	Selective processing of damaged packets	United States of America	10742196	12/19/2003	8717868	5/6/2014	Granted
RPX Clearinghouse LLC	Scalable balanced switches	United States of America	11377128	3/16/2006	8687628	4/1/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for providing replay protection in systems using group security associations	United States of America	10864146	6/9/2004	8687485	4/1/2014	Granted
RPX Clearinghouse LLC	Method and apparatus for estimating end-to- end packet delay	United States of America	11013022	12/15/2004	8670315	3/11/2014	Granted
RPX Clearinghouse LLC	Bifurcated conferencing functions	United States of America	11616701	12/27/2006	8660040	2/25/2014	Granted
RPX Clearinghouse LLC	Packet handler for high-speed data networks	United States of America	10196884	7/17/2002	7796583	9/14/2010	Granted
RPX Clearinghouse LLC	Technique for adaptively load balancing connections in multi-link trunks	United States of America	09/946736	9/6/2001	7787370	8/31/2010	Granted
RPX Clearinghouse LLC	Communication of control and data path state for networks	United States of America	10744838	12/23/2003	7774474	8/10/2010	Granted
RPX Clearinghouse LLC	Distributed call server supporting communication sessions in a communication system and method	United States of America	10610511	6/30/2003	7765302	7/27/2010	Granted
RPX Clearinghouse LLC	Service enabling technology	United States of America	09695108	10/25/2000	7761541	7/20/2010	Granted
RPX Clearinghouse LLC	Self-provisioning node and network	United States of America	10738895	12/17/2003	7756959	7/13/2010	Granted
RPX Clearinghouse LLC	Bimodal burst switching	United States of America	11858373	9/20/2007	7756141	7/13/2010	Granted
RPX Clearinghouse LLC	Non-intrusive monitoring of quality levels for voice communications over a packet-based network	United States of America	10267765	10/9/2002	7746797	6/29/2010	Granted
RPX Clearinghouse LLC	Method and apparatus for preserving data in a system implementing diffserv and ipsec protocol	United States of America	10611392	6/30/2003	7746781	6/29/2010	Granted
RPX Clearinghouse LLC	Sip messages carrying executable computer software code	United States of America	09520853	3/7/2000	7743149	6/22/2010	Granted

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RPX Clearinghouse LLC	Method and apparatus for intelligent management of a	United States of America	10678705	10/3/2003	7734748	6/8/2010	Granted
RPX Clearinghouse LLC	network element  Method and apparatus for non-intrusive single-ended voice quality assessment in voip	United States of America	11629548	6/15/2005	7729275	6/1/2010	Granted
RPX Clearinghouse LLC	Optimized scheduling method for delay- sensitive traffic on high speed shared packet data channels	United States of America	11241462	9/30/2005	7715341	5/11/2010	Granted
RPX Clearinghouse LLC	Distributed services based on presence technology	United States of America	10336523	1/3/2003	7711810	5/4/2010	Granted
RPX Clearinghouse LLC	Metro ethernet service enhancements	United States of America	10858076	6/2/2004	7701948	4/20/2010	Granted
RPX Clearinghouse LLC	Auto-compression for media over ip	United States of America	10403582	3/31/2003	7688852	3/30/2010	Granted
RPX Clearinghouse LLC	Multi-dimensional lattice network	United States of America	10969748	10/20/2004	7684389	3/23/2010	Granted
RPX Clearinghouse LLC	Agent detector, with optional agent recognition and log-in capabilities, and optional portable call history storage	United States of America	10902639	7/29/2004	7680263	3/16/2010	Granted
RPX Clearinghouse LLC	Interworking of dissimilar packet networks for telephony communications	United States of America	10963262	10/12/2004	7675934	3/9/2010	Granted
RPX Clearinghouse LLC	Communication system architecture and operating methods thereof	United States of America	11065308	2/24/2005	7675853	3/9/2010	Granted
RPX Clearinghouse LLC	Content networks	United States of America	09751289	12/29/2000	7114003	9/26/2006	Granted
RPX Clearinghouse LLC	Method, apparatus and article of manufacture for web-based control of a unified multi- service communication system	United States of America	09414590	10/8/1999	7111056	9/19/2006	Granted
RPX Clearinghouse LLC	Distributed photonic switch and optical uni server	United States of America	09972911	10/10/2001	7110670	9/19/2006	Granted
RPX Clearinghouse LLC	Instance memory handoff in multi-processor systems	United States of America	09739714	12/20/2000	7110417	9/19/2006	Granted
RPX Clearinghouse LLC	Transporting telephony signaling over a data network	United States of America	09517903	3/3/2000	7110391	9/19/2006	Granted
RPX Clearinghouse LLC	Technique for accommodating electronic components on a multiplayer signal routing device	United States of America	10716599	11/20/2003	7107673	9/19/2006	Granted
RPX Clearinghouse LLC	Technique for multicasting optical frequency channels in a multi-channel optical	United States of America	10303015	11/25/2002	7106977	9/12/2006	Granted

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	system						
RPX Clearinghouse LLC	Integrated photonic switch	United States of America	09584363	6/1/2000	7106966	9/12/2006	Granted
RPX Clearinghouse LLC	Scheduler with fairness control and quality of service support	United States of America	10050091	11/16/2001	7103350	9/5/2006	Granted
RPX Clearinghouse LLC	All optical clock recovery	United States of America	10191512	7/10/2002	7103282	9/5/2006	Granted
RPX Clearinghouse LLC	Network planning tool	United States of America	09751060	12/29/2000	7103003	9/5/2006	Granted
RPX Clearinghouse LLC	System and method for regulating web site access	United States of America	09713292	11/16/2000	7099933	8/29/2006	Granted
RPX Clearinghouse LLC	Call origination control	United States of America	10693806	10/24/2003	7096043	8/22/2006	Granted
RPX Clearinghouse LLC	System, device, and method for localized information processing in a multiprotocol label switching network	United States of America	09954136	9/17/2001	7095736	8/22/2006	Granted
RPX Clearinghouse LLC	Method and apparatus for associating information with an object in a file	United States of America	09466640	12/20/1999	7092934	8/15/2006	Granted
RPX Clearinghouse LLC	Apparatus and method for supporting differentiated packet data services within a wireless network	United States of America	09708782	11/8/2000	7092727	8/15/2006	Granted
RPX Clearinghouse LLC	Resource management in heterogenous qos- based packet networks	United States of America	09970883	10/5/2001	7092356	8/15/2006	Granted
RPX Clearinghouse LLC	Universal edge node	United States of America	10025982	12/26/2001	7082132	7/25/2006	Granted
RPX Clearinghouse LLC	Optical signal generator with stabilized carrier frequency output	United States of America	09892492	6/28/2001	7079772	7/18/2006	Granted
RPX Clearinghouse LLC	System and apparatus for dropping and adding optical data streams in an optical communication network	United States of America	09740706	12/19/2000	7079770	7/18/2006	Granted
RPX Clearinghouse LLC	Method and apparatus for implementing an extensible range of communications services in telephone networks	United States of America	09742419	12/22/2000	7079640	7/18/2006	Granted
RPX Clearinghouse LLC	Methods and systems for enabling charging land-line long-distance calls to wireless subscriber's account	United States of America	10402186	3/26/2003	7076038	7/11/2006	Granted
RPX Clearinghouse LLC	Method and apparatus for implementing hub- and-spoke topology virtual private networks	United States of America	10746472	12/23/2003	7075933	7/11/2006	Granted

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RPX Clearinghouse LLC	Network path selection based on bandwidth	United States of America	10106781	3/27/2002	7072304	7/4/2006	Granted
RPX Clearinghouse LLC	Alignment laser for use in cross-connects	United States of America	10383437	3/7/2003	7072031	7/4/2006	Granted
RPX Clearinghouse LLC	Method for reducing the number of layers in a multilayer signal routing device	United States of America	10326123	12/23/2002	7069650	7/4/2006	Granted
RPX Clearinghouse LLC	Techniques for reducing the number of layers in a multilayer signal routing device	United States of America	10407460	4/7/2003	7069646	7/4/2006	Granted
RPX Clearinghouse LLC	Techniques for dilating and reverse dilating optical channels in an optical system	United States of America	10195531	7/16/2002	7068935	6/27/2006	Granted
RPX Clearinghouse LLC	Method and system for providing visual notification in a unified messaging system	United States of America	10246719	9/18/2002	706 <b>8</b> 762	6/27/2006	Granted
RPX Clearinghouse LLC	Telephone based access to instant messaging	United States of America	09707987	11/8/2000	7065186	6/20/2006	Granted
RPX Clearinghouse LLC	Method and design for increasing signal to noise ratio in xdsl modems	United States of America	10083305	2/26/2002	7065143	6/20/2006	Granted
RPX Clearinghouse LLC	Link capacity adjustment component	United States of America	10090383	3/4/2002	7058008	6/6/2006	Granted
RPX Clearinghouse LLC	Technique for routing data within an optical network	United States of America	09685090	10/11/2000	7054557	5/30/2006	Granted
RPX Clearinghouse LLC	Multilayer circuit board	United States of America	10431388	5/8/2003	7051433	5/30/2006	Granted
RPX Clearinghouse LLC	Controlling a destination terminal from an originating terminal	United States of America	09606053	6/28/2000	7050861	5/23/2006	Granted
RPX Clearinghouse LLC	Metropolitan photonic switch	United States of America	10768050	2/2/2004	7050667	5/23/2006	Granted
RPX Clearinghouse LLC	Multimedia augmented call coverage	United States of America	10261577	10/1/2002	7050565	5/23/2006	Granted
RPX Clearinghouse LLC	Method and apparatus for broadcasting media objects with guaranteed quality of service	United States of America	10939023	9/10/2004	7047307	5/16/2006	Granted
RPX Clearinghouse LLC	Method and system for determining availability in networks	United States of America	09984700	10/31/2001	7046693	5/16/2006	Granted
RPX Clearinghouse LLC	Method, system and signal for carrying overhead information in a transport network employing photonic switching nodes	United States of America	09648767	8/28/2000	7043160	5/9/2006	Granted
RPX Clearinghouse LLC	Resynchronization of control and data path state for networks	United States of America	10017509	12/18/2001	7042912	5/9/2006	Granted

RPX	Dispersion	United	09965810	10/1/2001	7039318	5/2/2006	Granted
Clearinghouse	discrimination and	States of					
LLC	compensation system	America					
	and optical switch for use therewith						
RPX	Wireless lan wep	United	09753229	12/28/2000	7039190	5/2/2006	Granted
Clearinghouse	initialization vector	States of	09733229	12/20/2000	,033130	3,2,2000	Granica
LLC	partitioning scheme	America					
RPX	Automated data	United	10324609	12/20/2002	7039170	5/2/2006	Granted
Clearinghouse	transfer in association	States of					
LLC RPX	with a voice call Wavelength	America United	09870665	6/1/2001	7035541	4/25/2006	Granted
Clearinghouse	architecture and	States of	07070003	0/1/2001	7033341	4/23/2000	Granicu
LLC	implementation for a	America					
	photonically switched						
DDV	network	** 14 1	10204047	2/7/2002	7025200	1/25/2006	G . 1
RPX Clearinghouse	User controlled call routing for multiple	United States of	10384047	3/7/2003	7035390	4/25/2006	Granted
LLC	telephony devices	America					
RPX	Dispersion	United	10097268	3/15/2002	7034994	4/25/2006	Granted
Clearinghouse	management for long-	States of					
LLC	haul high-speed optical	America					
DDV	networks	TTudand	00752245	12/20/2000	7021427	4/18/2007	Granted
RPX Clearinghouse	Method and system for providing remote	United States of	09753345	12/29/2000	7031437	4/18/2006	Granted
LLC	access to previously	America					
	transmitted enterprise						
	messages						
RPX	Two-dimensional	United	10695109	10/28/2003	7031045	4/18/2006	Granted
Clearinghouse LLC	micro-mirror array	States of America					
RPX	enhancements Apparatus for	United	10926104	8/26/2004	7016564	3/21/2006	Granted
Clearinghouse	switching optical	States of	10020101	0,20,2001	7010301	3,21,2000	Granica
LLC	signals	America					
RPX	Integrated connection	United	09349347	7/7/1999	7016375	3/21/2006	Granted
Clearinghouse	admission control and	States of					
LLC	bandwidth on demand for a access	America					
	asynchronous network						
RPX	Technique for	United	09749946	12/29/2000	7010225	3/7/2006	Granted
Clearinghouse	interchanging	States of					
LLC	wavelengths in a multi-	America					
RPX	wavelength system  Rotator switch data	United	09971011	10/5/2001	7009964	3/7/2006	Granted
Clearinghouse	path structures	States of	099/1011	10/3/2001	7009904	3/ //2000	Granteu
LLC	<b>.</b>	America					
RPX	Methods of controlling	United	09640701	8/17/2000	7007098	2/28/2006	Granted
Clearinghouse	video signals in a video	States of					
LLC RPX	conference Method and system for	America United	09676236	9/29/2000	6522885	2/18/2003	Granted
Clearinghouse	solving cellular	States of	07070230	7/27/2000	0322003	2/16/2003	Granicu
LLC	communications	America					
	frequency planning						
DDV	problem  Dealest handles for high	TImitad	12567190	9/6/2012	0011207	9/10/2014	C
RPX Clearinghouse	Packet handler for high speed data networks	United States of	13567180	8/6/2012	8811386	8/19/2014	Granted
LLC	Spoon and nothons	America					
RPX	Method and apparatus	United	13304060	11/23/2011	8838959	9/16/2014	Granted
Clearinghouse	for securely	States of					
LLC	synchronizing	America					
RPX	password systems Method and apparatus	United	12690196	1/20/2010	8948313	2/3/2015	Granted
Clearinghouse	for adjusting a symbol	States of	12070170	1/20/2010	0770313	21 31 2013	Granicu
LLC	decision threshold at a	America					
LLC	receiver in a						
	communication						

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	Method and apparatus for content processing application acceleration	United States of America	10692842	10/24/2003	8891549	11/18/2014	Granted
RPX Clearinghouse LLC	Managing flow control buffer	United States of America	10744769	12/22/2003	8819265	8/26/2014	Granted
RPX Clearinghouse LLC	Self-configuring distributed switch	United States of America	10409702	4/9/2003	7230952	6/12/2007	Granted
RPX Clearinghouse LLC	System, device, and method for managing alternate site switching in an optical communication system	United States of America	09930548	8/15/2001	7738359	6/15/2010	Granted
RPX Clearinghouse LLC	Ethernet differentiated services	United States of America	10868536	6/15/2004	7764688	7/27/2010	Granted
RPX Clearinghouse LLC	Emergency services for packet networks	United States of America	13021134	2/4/2011	8737594	5/27/2014	Granted
RPX Clearinghouse LLC	Passive optical loopback	United States of America	10177998	6/21/2002	8750702	6/10/2014	Granted
RPX Clearinghouse LLC	Multicast-enabled address resolution protocol (me-arp)	United States of America	13222900	8/31/2011	8782288	7/15/2014	Granted
RPX Clearinghouse LLC	System, device, and method for receiver access control in an internet television system	United States of America	13727800	12/27/2012	8789087	7/22/2014	Granted
RPX Clearinghouse LLC	Modular high-capacity switch	United States of America	12916805	11/1/2010	8792516	7/29/2014	Granted
RPX Clearinghouse LLC	Technique for implementing an optical/tdm virtual private network	United States of America	10326121	12/23/2002	8799430	8/5/2014	Granted
RPX Clearinghouse LLC	Ethernet differentiated services conditioning	United States of America	10868568	6/15/2004	8804728	8/12/2014	Granted
RPX Clearinghouse LLC	Technique for end-to- end admission control of real-time packet flows	United States of America	13682800	11/21/2012	8811182	8/19/2014	Granted
RPX Clearinghouse LLC	Distribution of xml documents/messages to xml appliances/routers	United States of America	14019608	9/6/2013	8838692	9/16/2014	Granted
RPX Clearinghouse LLC	Automated attendant multimedia session	United States of America	13047362	3/14/2011	8848693	9/30/2014	Granted

## United States Patent Applications:

Owner	Title	Country	Application No.	Filing Date	Patent No.	Issue Date	Patent Status
RPX Clearinghouse LLC	System and method for validation and enforcement of application security	States of	14322166	07/02/2014	<del></del>		Pending

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