# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4554044

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| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | ASSIGNMENT |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| RONEN SOLOMON | 01/28/2014 |
| ORCKIT-CORRIGENT LTD. | 04/25/2016 |

**RECEIVING PARTY DATA**

| | |
|---|---|
| **Name:** | ORCKIT IP, LLC |
| **Street Address:** | 831 BEACON ST. #307 |
| **City:** | NEWTON |
| **State/Country:** | MASSACHUSETTS |
| **Postal Code:** | 02459 |

**PROPERTY NUMBERS Total: 1**

| Property Type | Number |
|---|---|
| **Application Number:** | 15679179 |

**CORRESPONDENCE DATA**

**Fax Number:**

***Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.***

**Phone:** +972544444577
**Email:** yehuda@maypatents.com
**Correspondent Name:** MAY PATENTS LTD. C/O DORIT SHEM-TOV
**Address Line 1:** P.O.B 7230
**Address Line 4:** RAMAT-GAN, ISRAEL 5217102

| | |
|---|---|
| **ATTORNEY DOCKET NUMBER:** | ORCKIT-014-US6 |
| **NAME OF SUBMITTER:** | YEHUDA BINDER |
| **SIGNATURE:** | /Yehuda Binder/ |
| **DATE SIGNED:** | 08/17/2017 |

**Total Attachments: 15**
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# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3496597

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| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | ASSIGNMENT |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| RONEN SOLOMON | 01/28/2014 |

**RECEIVING PARTY DATA**

| | |
|---|---|
| **Name:** | ORCKIT-CORRIGENT LTD. |
| **Street Address:** | 126 YIGAL ALON ST. |
| **City:** | TEL AVIV |
| **State/Country:** | ISRAEL |
| **Postal Code:** | 67443 |

**PROPERTY NUMBERS Total: 1**

| Property Type | Number |
|---|---|
| **Application Number:** | 14834480 |

**CORRESPONDENCE DATA**

**Fax Number:** (603)627-8121

***Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.***

**Phone:** 603-627-8134
**Email:** ipadm@SHEEHAN.COM
**Correspondent Name:** SHEEHAN PHINNEY BASS & GREEN, PA C/O PET
**Address Line 1:** 1000 ELM STREET, 17TH FLOOR
**Address Line 4:** MANCHESTER, NEW HAMPSHIRE 03105-3701

| | |
|---|---|
| **ATTORNEY DOCKET NUMBER:** | 40552-6176 |
| **NAME OF SUBMITTER:** | DEBRA A. STENGEL |
| **SIGNATURE:** | /Debra A. Stengel/ |
| **DATE SIGNED:** | 08/25/2015 |

**Total Attachments: 2**
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Docket No.: 40552-6175P

# ASSIGNMENT

Whereas I, Ronen Solomon, have invented certain new and useful improvements in:

**Tunnel Provisioning with Link Aggregation**

(hereinafter referred to as "Invention") described in a U.S. Patent Application, the specification of which was filed August 17, 2013 as U.S. Application No. 13/969,520.

And, whereas I desire to assign a 100% undivided interest in said Invention, said application disclosing the Invention and any Letters Patent which may be granted therefore to **Orckit-Corrigent Ltd.**, an Israeli corporation, having its place of business at **126 Yigal Allon Street, Tel Aviv, Israel 67443** (hereinafter referred to as "Assignee"), and whereas Assignee is desirous of acquiring the entire right, title and interest in the same;

Now, this indenture witnesseth, that for the sum of one dollar ($1.00), and other good and valuable consideration, the receipt whereof is hereby acknowledged;

I hereby assign, sell and transfer a 100% undivided interest in said invention, said application, including any divisions, continuations, and continuations-in-part thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said Invention, and in and to any and all priority rights, Convention rights, and other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, unto said Assignee;

And I hereby authorize and request the Director of the United States Patent and Trademark Office to issue said United States Letters Patent to said Assignee, as assignee of the whole right, title and interest thereto;

And I further agree to execute all necessary and lawful future documents, including assignments in favor of Assignee, or its designees as Assignee or its Assignees may from time-to-time present to me in order to perfect title in said Invention, modifications, and improvements in said Invention, applications and Letters Patent of the United States and countries foreign thereto;



PATENT
REEL: 036302 FRAME: 0585

And I further agree to sign and properly execute such necessary and lawful papers for application for foreign patents, for filing divisions, continuations and continuations-in-part of said application for patent, and/or, for obtaining any reissue or reissues of any Letters Patent that may be granted for my aforesaid Invention, as the Assignee thereof shall hereafter require and prepare at its own expense.

Executed this 28 day of January, in the year 2014

at TEL AVIV, ISRAEL

Kouen Solomon



RECORDED: 08/25/2015

PATENT
REEL: 036302 FRAME: 0588

## ASSIGNMENT AGREEMENT

This Assignment Agreement (the "**Agreement**") is made and entered into this 25 day of April 2016 (the "**Effective Date**"), by Orckit Communications Ltd., an Israeli limited liability company (under Creditors' Arrangement) and Orckit - Corrigent Ltd. And Corrigent Systems Ltd. ("**Orckit**"), having an address with Lior Dagan, Adv. (Trustee). 1 Azrieli Center (Round Building), 35th Floor, Tel-Aviv 67021, Israel (severally and jointly "**Assignor**") and Orckit IP, LLC, a Delaware limited liability company having an address at 874 Walker Road, Suite C, Dover, Delaware and a mailing address at 831 Beacon Street #307, Newton, MA, USA (02459) ("**Assignee**").

### RECITALS

A. Assignor is the owner of (select as appropriate):

- ☒ the United States Patents set forth on Appendix A hereto (the "US Patents");
- ☒ the non-United States patents set forth on Appendix A hereto (the "Foreign Patents");
- ☒ the United States patent applications set forth on Appendix B hereto (the "US Patent Applications");
- ☒ the United States provisional patent applications set forth on Appendix B hereto (the "US Provisional Patent Applications"); and/or
- ☒ the foreign patent applications set forth on Appendix B hereto (the "Foreign Patent Applications");

Which collectively shall be referred to herein as the "**Patents**".

B. Assignor and Assignee have agreed by way of a purchase agreement (the "Purchase Agreement") dated November 30, 2015, by and between Assignor and Assignee, the terms of which are incorporated herein by reference, that Assignor shall sell, transfer, and assign and set over unto Assignee and Assignee shall accept, all rights, title and interest in and to the Patents as specified in this Agreement. In the event of any conflict between the terms of this Patent Assignment Agreement and the referenced Purchase Agreement, the terms of the Purchase Agreement shall prevail.

### AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises, and the covenants and agreements in this Assignment, Assignor and Assignee agree as follows:

1. Assignor does hereby sell, transfer, convey, assign and deliver to Assignee all of Assignor's right, privilege, title and interest in, to and under the Patents and in the case of patent applications in and to any patents that may issue therefrom, including, in all instances, any counterparts of any of the foregoing in any jurisdiction throughout the world, and any and all divisions, continuations, reissues or reexaminations of any of the foregoing, and, further, all applications for industrial property protection, including without limitation, all applications for patents, utility models, copyright, and designs which may hereafter be filed for any inventions described in said Patents in any country or countries, together with the right to file such applications and the right to claim for the same the priority rights derived from the inventions and the Patents under the laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable, in each instance the same to be held by Assignee for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, permitted assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment and sale had not been made;

together with all claims for damages, royalties, income or other remuneration (hereinafter "Damages") by reason of past, present and future infringements of the Patents or other rights being assigned hereunder, along with the right to sue for and collect such Damages for the use and benefit of Assignee and its successors, permitted assigns and other legal representatives.

2. Insofar as this assignment concerns European patents and patent applications, Assignor does hereby declare that it is the owner of said Patents and that Assignor has assigned same, along with all rights and duties appurtenant thereto, to Assignee and agree that the assignment will be recorded in the register with the European Patent Office; and Assignee hereby declares that Assignee has agreed to the assignment of the aforementioned Patents to it and that Assignee will simultaneously apply for recording of the assignment in the register with the European Patent Office.

3. Assignor hereby authorizes and requests the Commissioner for Patents of the United States, and any officer of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of intellectual property protection or applications as aforesaid, to issue the same to Assignee and its successors, permitted assigns and other legal representatives in accordance with the terms of this instrument.

4. Assignor authorizes and empowers Assignee, its successors, permitted assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for the inventions, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable, and to invoke and claim such right of priority without further written or oral authorization from Assignor.

5. Assignor hereby acknowledges and agrees that all of the rights, title and interest in and to the Patents sold, transferred, assigned and set over to Assignee hereunder include all income, royalties, damages and payments now or hereafter due or payable with respect thereto, and all causes of action (whether in law or equity) and the right to sue, counterclaim, and recover for the past, present and future infringement of the rights assigned or to be assigned hereunder.

6. Assignor hereby consents that a copy of this Agreement shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document that may be required in any country for any purpose and more particularly in proof of the right of Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

IN WITNESS WHEREOF, the Parties have executed this Assignment on the Effective Date written at _____.

**Assignor:**

**Orckit Communications Ltd. (Under Creditors' Arrangement),**

**Orckit - Corrigent Ltd. And Corrigent Systems Ltd.**

By: _____

Name: Adv. Lior Dagan

Title: Trustee for the Creditors' Arrangement of Orckit Communications Ltd (Under Creditors' Arrangement)

ליאור דגן, עו"ד
נאמן להסדר הנושים
לחברת אורכית תקשורת בע"מ
(בהסדר נושים) ח.צ. 520042870

**Orckit Corrigent Ltd.**
126 Yigal Alon st.
Tel-Aviv 67443, Israel
Tel: +972-3-6952727
Fax: +972-3-6953222

**Assignee: Orckit IP, LLC**

By: _____

Name: Mr. Yehuda Binder

Title: C.E.O and Owner

ORCKIT IP, LLC
DE LLC # 5886551
831 Beacon St. # 307
Newton, MA 02459-1840

**APPENDIX A**

**TO ASSIGNMENT AGREEMENT**

| TITLE | COUNTRY | FILED | SERIALNO | ISSUED | PATENT NO |
|---|---|---|---|---|---|
| AUTO-CONFIGURATION OF NETWORK INTERFACES IN A BIDIRECTIONAL RING NETWORK | | | | | |
| | UNITED STATES | 16-Oct-01 | 09/978,642 | 06-Dec-05 | 6973049 |
| AUTOMATED WEIGHT CALCULATION FOR PACKET NETWORKS | | | | | |
| | UNITED STATES | 03-Jun-04 | 10/861,272 | 26-Aug-08 | 7418000 |
| Automatic Implementation of Network Configuration Changes | | | | | |
| | UNITED STATES | 11-Aug-00 | 09/637,300 | 17-May-05 | 6894983 |
| AVOIDING OVERLAPPING SEGMENTS IN TRANSPARENT LAN SERVICES ON RING-BASED NETWORKS | | | | | |
| | UNITED STATES | 25-Jan-02 | 10/057,332 | 24-Oct-06 | 7127523 |
| | UNITED STATES | 25-Jan-02 | 10/054,845 | 05-Dec-06 | 7145878 |
| BANDWIDTH ALLOCATION FOR LINK AGGREGATION | | | | | |
| | UNITED STATES | 13-May-03 | 10/436,516 | 26-Feb-08 | 7336605 |
| BANDWIDTH SHARING METHOD | | | | | |
| | UNITED STATES | 28-Feb-00 | 09/514,745 | 03-Feb-04 | 6687224 |
| Bi-directional Chaining of Network Access Ports | | | | | |
| | UNITED STATES | 27-Dec-99 | 09/472,683 | 20-Jan-04 | 6680904 |
| COMMUNICATION IN A BIDIRECTIONAL RING NETWORK WITH SINGLE-DIRECTION RECEIVING | | | | | |
| | UNITED STATES | 07-Jun-01 | 09/876,414 | 04-Oct-05 | 6952397 |
| CONNECTIVITY FAULT MANAGEMENT (CFM) IN NETWORKS WITH LINK AGGREGATION GROUP CONNECTIONS | | | | | |
| | UNITED STATES | 11-Jul-06 | 11/483,650 | 03-Aug-10 | 7768928 |

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|---|---|---|---|---|---|
| | JAPAN | 11-Jun-07 | 2009519055 | 08-Mar-13 | 5213854 |
| | SOUTH KOREA | 11-Jun-07 | 2009-7001476 | 28-Jan-14 | 10-1360120 |
| DIFFERENTIATED SERVICES WITH MULTIPLE TAGGING LEVELS | | | | | |
| | UNITED STATES | 24-Apr-02 | 10/128,454 | 09-Oct-07 | 7280560 |
| DYNAMIC PACKET FRAGMENTATION | | | | | |
| | UNITED STATES | 08-Jan-01 | 09/756,554 | 10-May-05 | 6891855 |
| EFFICIENT TRANSPORT OF TDM SERVICES OVER PACKET NETWORKS | | | | | |
| | UNITED STATES | 24-Mar-03 | 10/396,008 | 07-Apr-09 | 7515605 |
| | UNITED STATES | 16-Mar-09 | 12/404,444 | 14-Jun-11 | 7961755 |
| EQUIPMENT PROTECTION USING A PARTIAL STAR ARCHITECTURE | | | | | |
| | UNITED STATES | 02-Aug-02 | 10/211,065 | 18-Apr-06 | 7032135 |
| FAST FAILURE PROTECTION USING REDUNDANT NETWORK EDGE PORTS | | | | | |
| | UNITED STATES | 07-Jan-02 | 10/036,518 | 12-Jul-05 | 6917986 |
| FAST PROTECTION IN RING TOPOLOGIES | | | | | |
| | UNITED STATES | 30-Aug-01 | 09/941,723 | 13-Jun-06 | 7061859 |
| FAULT-TOLERANT MEDIUM ACCESS CONTROL (MAC) ADDRESS ASSIGNMENT IN NETWORK ELEMENTS | | | | | |
| | UNITED STATES | 22-Sep-06 | 11/534,556 | 09-Feb-10 | 7660234 |
| | EUROPEAN PATENT CONVENT | 18-Sep-07 | 07805604.1 | 22-Jan-14 | 2069934 |
| | UNITED KINGDOM | 18-Sep-07 | 07805604.1 | 22-Jan-14 | 2069934 |
| FLOW ALLOCATION IN A RING TOPOLOGY | | | | | |
| | UNITED STATES | 09-Jan-01 | 09/756,946 | 25-Apr-06 | 7035279 |
| FORWARDING MULTICAST TRAFFIC OVER LINK AGGREGATION PORTS | | | | | |
| | UNITED STATES | 21-Dec-06 | 11/644,773 | 13-Apr-10 | 7697525 |
| FRAME CONCATENATION WITH DROP PRECEDENCE ASSIGNMENT | | | | | |
| | UNITED STATES | 08-Feb-07 | 11/704,615 | 13-Apr-10 | 7697532 |

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|---|---|---|---|---|---|
| | EUROPEAN PATENT CONVENT | 11-Dec-07 | 07849561.1 | 09-Jul-14 | 2132905 |
| | UNITED KINGDOM | 11-Dec-07 | 07849561.1 | 09-Jul-14 | 2132905 |
| | HONG KONG | 11-Dec-07 | 10106007.6 | 23-Jan-15 | HK113953 1 |
| GENERIC FRAMEWORK FOR EMBEDDED SOFTWARE DEVELOPMENT | | | | | |
| | UNITED STATES | 03-Dec-01 | 10/005,030 | 27-Jun-06 | 7069546 |
| HASH-BASED MULTI-HOMING | | | | | |
| | UNITED STATES | 16-Jul-07 | 11/778,286 | 01-Dec-09 | 7626930 |
| HIDDEN FAILURE DETECTION | | | | | |
| | UNITED STATES | 30-May-02 | 10/156,851 | 18-Oct-05 | 6957369 |
| HIERARCHICAL VIRTUAL PRIVATE LAN SERVICE PROTECTION SCHEME | | | | | |
| | UNITED STATES | 07-Jan-03 | 10/337,382 | 16-Oct-07 | 7283465 |
| HIGH CAPACITY RING COMMUNICATION NETWORK | | | | | |
| | UNITED STATES | 02-Mar-06 | 11/367,231 | 05-Oct-10 | 7808931 |
| | UNITED STATES | 04-Oct-10 | 12/897,341 | 30-Aug-11 | 8009684 |
| HIGH-SPEED PROCESSING OF MULTICAST CONTENT REQUESTS | | | | | |
| | UNITED STATES | 11-Feb-09 | 12/369,011 | 06-Sep-11 | 8014394 |
| INTERCONNECT AND GATEWAY PROTECTION IN BIDIRECTIONAL RING NETWORKS | | | | | |
| | UNITED STATES | 24-Jul-01 | 09/910,790 | 30-May-06 | 7054264 |
| INTERFACE BETWEEN A SYNCHRONOUS NETWORK AND HIGH-SPEED ETHERNET | | | | | |
| | ISRAEL | 11-Apr-07 | 194824 | 01-Jul-14 | 194824 |
| LATENCY EVALUATION IN A RING NETWORK | | | | | |
| | UNITED STATES | 04-Sep-01 | 09/947,183 | 26-Sep-06 | 7113485 |
| LAYER-3 NETWORK ROUTING WITH RPR LAYER-2 VISIBILITY | | | | | |
| | UNITED STATES | 29-Mar-04 | 10/812,321 | 23-Jun-09 | 7551599 |

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|---|---|---|---|---|---|
| LINE DRIVER WITH OUTPUT IMPEDANCE SYNTHESIS | | | | | |
| | UNITED STATES | 23-Dec-99 | 09/470,777 | 17-Apr-01 | 6218872 |
| MAC ADDRESS LEARNING IN A DISTRIBUTED BRIDGE | | | | | |
| | UNITED STATES | 19-May-06 | 11/419,444 | 22-Sep-09 | 7593400 |
| | ISRAEL | 17-May-07 | 195263 | 29-May-13 | 195263 |
| | SOUTH KOREA | 17-May-07 | 10200870306 94 | 08-Oct-14 | 10-1451174 |
| MAC ADDRESS SCALABILITY IN INTERCONNECTED RINGS | | | | | |
| | UNITED STATES | 18-Jun-07 | 11/764,764 | 13-Apr-10 | 7697552 |
| MANAGEMENT INTERFACE FOR A NETWORK ACCESS MULTIPLEXING SYSTEM | | | | | |
| | UNITED STATES | 08-Nov-00 | 09/708,845 | 23-Nov-04 | 6822944 |
| Method and Apparatus for Compensating for an Echo Signal Component in Telecommunication Systems | | | | | |
| | UNITED STATES | 14-Dec-99 | 09/460,891 | 18-Oct-05 | 6956944 |
| METHOD AND APPARATUS FOR FILTERING ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) SIGNALS | | | | | |
| | UNITED STATES | 12-May-99 | 09/310,518 | 02-Nov-04 | 6813343 |
| METHOD FOR SUPPORTING MPLS TRANSPORT PATH RECOVERY WITH MULTIPLE PROTECTION ENTITIES | | | | | |
| | UNITED STATES | 05-Dec-11 | 13/311,128 | 09-Sep-14 | 8830821 |
| MULTIPOINT TO MULTIPOINT COMMUNICATION OVER RING TOPOLOGIES | | | | | |
| | UNITED STATES | 03-Sep-04 | 10/933,572 | 12-Feb-08 | 7330431 |
| MULTIPROTOCOL MEDIA CONVERSION | | | | | |
| | UNITED STATES | 13-Jun-03 | 10/461,807 | 10-Jun-08 | 7386010 |
| NETWORK ACCESS MULTIPLEXER WITH PROTOCOL ADDRESS TRANSLATION | | | | | |
| | UNITED STATES | 08-Nov-00 | 09/708,841 | 23-Nov-04 | 6822943 |

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| NETWORK INTERFACE AUTO-CONFIGURATION IN AN ACCESS MULTIPLEXING SYSTEM | | | | | |
| | UNITED STATES | 01-Aug-00 | 09/629,664 | 04-May-04 | 6731607 |
| PACKET FRAGMENTATION WITH NESTED INTERRUPTIONS | | | | | |
| | UNITED STATES | 08-Jan-01 | 09 756,553 | 05-Apr-05 | 6876669 |
| PERFORMANCE MONITORING OF HIGH SPEED COMMUNICATIONS NETWORKS | | | | | |
| | UNITED STATES | 24-Apr-02 | 10/128,459 | 28-Nov-06 | 7142516 |
| PERFORMANCE MONITORING OF MULTIPLE CHANNELS IN AN AUTOMATIC PROTECTION SWITCHED NETWORK | | | | | |
| | UNITED STATES | 25-Feb-02 | 10 082,771 | 02-Jan-07 | 7158721 |
| POINT-TO-MULTIPOINT FUNCTIONALITY IN A BRIDGED NETWORK | | | | | |
| | UNITED STATES | 22-Aug-06 | 11/508,599 | 09-Feb-10 | 7660303 |
| | JAPAN | 19-Jun-07 | 2009525169 | 03-Aug-12 | 5053376 |
| | SOUTH KOREA | 19-Jun-07 | 10200970050 97 | 23-Jan-14 | 10-1357457 |
| Prevention Of Frame Duplication In Interconnected Ring Networks | | | | | |
| | UNITED STATES | 07-Mar-08 | 12/044,158 | 25-Jan-11 | 7876673 |
| PROTECTING THE FILTERING DATABASE IN VIRTUAL BRIDGES | | | | | |
| | UNITED STATES | 01-Feb-02 | 10/061,721 | 26-Dec-06 | 7154899 |
| | UNITED STATES | 09-Nov-06 | 11/595,635 | 10-Aug-10 | 7773508 |
| Protection Against Master Unit Failure in Remote Network Access Multiplexing | | | | | |
| | UNITED STATES | 11-Aug-00 | 09/637,757 | 21-Dec-04 | 6834038 |
| RATE CONTROL IN TRANSMISSION OF PACKET DATA OVER AN ATM NETWORK | | | | | |
| | UNITED STATES | 27-Nov-00 | 09/723,206 | 31-Aug-04 | 6785232 |
| RESOURCE RESERVATION IN A RING NETWORK | | | | | |
| | UNITED STATES | 26-Feb-01 | 09/794,898 | 08-Nov-05 | 6963537 |

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|---|---|---|---|---|---|
| RESOURCE SHARING AMONG NETWORK TUNNELS | | | | | |
| | UNITED STATES | 15-Dec-05 | 11/305,486 | 09-Dec-08 | 7463580 |
| RING NETWORK AGGREGATE RATES | | | | | |
| | UNITED STATES | 05-Jan-09 | 12/348,361 | 29-Mar-11 | 7916636 |
| RING NETWORK WITH VARIABLE RATE | | | | | |
| | UNITED STATES | 12-Mar-03 | 10/387,657 | 02-Sep-08 | 7420922 |
| ROUTE SELECTION WITH BANDWIDTH SHARING OPTIMIZATION OVER RINGS | | | | | |
| | UNITED STATES | 24-Jan-06 | 11/339,148 | 29-Sep-09 | 7596088 |
| | ISRAEL | 03-Oct-06 | 192993 | 25-Jun-13 | 192993 |
| SELECTIVE PROTECTION FOR RING TOPOLOGIES | | | | | |
| | UNITED STATES | 03-Oct-01 | 09/969,839 | 10-May-05 | 6892329 |
| | GERMANY | 03-Mar-02 | 602 12 108.6 | 06-Jul-06 | 602 12 108.6 |
| | EUROPEAN PATENT CONVENT | 03-Mar-02 | 02701519.7 | | 1378096 |
| | SPAIN | 03-Mar-02 | 02701519.7 | 07-Jun-06 | 2 266 445 |
| | FRANCE | 03-Mar-02 | 02701519.7 | 07-Jun-06 | 1378096 |
| | UNITED KINGDOM | 03-Mar-02 | 02701519.7 | 07-Jun-06 | 1378096 |
| | ISRAEL | 03-Mar-02 | 158008 | 05-Dec-09 | 158008 |
| | ITALY | 03-Mar-02 | 02701519.7 | 07-Jun-06 | 1378096 |
| | JAPAN | 03-Mar-02 | 2002577349 | 08-Aug-08 | 4167072 |
| SIGNALING MPLS OVER RPR RINGS | | | | | |
| | UNITED STATES | 20-Feb-03 | 10/369,953 | 27-Jan-09 | 7483399 |
| SONET CIRCUIT EMULATION WITH VT COMPRESSION | | | | | |
| | UNITED STATES | 17-Oct-01 | 09/978,342 | 07-Nov-06 | 7133415 |
| Splitterless Ethernet DSL on Subscriber Loops | | | | | |
| | UNITED STATES | 01-Jul-99 | 09/346,416 | 19-Nov-02 | 6483903 |
| SYNCHRONIZED RING SOFTWARE DOWNLOAD | | | | | |
| | UNITED STATES | 27-Sep-04 | 10/951,575 | 13-Jan-09 | 7478382 |
| TRAFFIC ENGINEERING IN BI-DIRECTIONAL RING NETWORKS | | | | | |
| | UNITED STATES | 02-Aug-02 | 10/211,066 | 16-Oct-07 | 7283478 |

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|---|---|---|---|---|---|
| TRANSPARENT TRANSPORT OF FIBRE CHANNEL TRAFFIC OVER PACKET-SWITCHED NETWORKS | | | | | |
| | UNITED STATES | 29-Jun-06 | 11/479,595 | 07-Apr-09 | 7515536 |
| Tunnel provisioning with link aggregation | | | | | |
| | UNITED STATES | 06-May-05 | 11/123,801 | 05-Jul-11 | 7974202 |
| | UNITED STATES | 26-May-11 | 13/116,696 | 17-Sep-13 | 8537682 |
| | UNITED STATES | 31-May-11 | 13/149,196 | 23-Apr-13 | 8427953 |
| | UNITED STATES | 17-Aug-13 | 13/969,520 | 25-Aug-15 | 9118602 |
| TWO-WAY LINK AGGREGATION | | | | | |
| | UNITED STATES | 07-Apr-06 | 11/279,045 | 09-Jun-09 | 7545740 |
| | ISRAEL | 27-Mar-07 | | 31-Jul-2015 | 194652 |
| VIRTUAL PRIVATE LAN SERVICE OVER RING NETWORKS | | | | | |
| | UNITED STATES | 19-Nov-04 | 10/993,882 | 05-Jul-11 | 7974223 |
| VIRTUAL PRIVATE LAN SERVICE USING A MULTICAST PROTOCOL | | | | | |
| | UNITED STATES | 23-Aug-02 | 10/226,525 | 04-Mar-08 | 7339929 |
| VPLS failure protection in ring networks | | | | | |
| | UNITED STATES | 18-Jan-06 | 11/335,770 | 19-Jul-11 | 7983150 |
| | GERMANY | 18-Jan-07 | 0770619.2 | 24-Jul-13 | 6.02007E+11 – |
| | EUROPEAN PATENT CONVENT | 18-Jan-07 | 07706019.2 | 24-Jul-13 | 1974485 |
| | FRANCE | 18-Jan-07 | 07706019.2 | 24-Jul-13 | 1974485 |
| | UNITED KINGDOM | 18-Jan-07 | 07706019.2 | 24-Jul-13 | 1974485 |
| VPLS REMOTE FAILURE INDICATION | | | | | |
| | GERMANY | 07-Nov-06 | 06809843.3 | 09-Oct-13 | 602006038796.2 |
| | EUROPEAN PATENT CONVENT | 07-Nov-06 | 06809843.3 | 09-Oct-13 | 1958364 |
| | FRANCE | 07-Nov-06 | 06809843.3 | 09-Oct-13 | 1958364 |
| | UNITED KINGDOM | 07-Nov-06 | 06809843.3 | 09-Oct-13 | 1958364 |
| | ISRAEL | 07-Nov-06 | 191454 | 01-Feb-14 | 191454 |
| | UNITED STATES | 07-Nov-06 | 12/093,824 | 12-Jun-12 | 8199637 |
| METHOD FOR SUPPORTING SNCP OVER PACKET | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| NETWORK | | | | | |
| | UNITED STATES | 15-Apr-11 | 13/087,438 | 13-Oct-15 | 9160446 |
| Device, Method and System for Media Packet Distribution | | | | | |
| | UNITED STATES | 02-Dec-10 | 12/738,080 | 10-Nov-15 | 9185151 |

## APPENDIX B

## TO ASSIGNMENT AGREEMENT

| TITLE | COUNTRY | FILED | SERIALNO |
|---|---|---|---|
| CONNECTIVITY FAULT MANAGEMENT (CFM) IN NETWORKS WITH LINK AGGREGATION GROUP CONNECTIONS | | | |
| | EUROPEAN PATENT CONVENT | 11-Jun-07 | 07736442 |
| | ISRAEL | 11-Jun-07 | 196401 |
| Device, Method and System for Media Packet Distribution | | | |
| | INDIA | 22-Oct-08 | 836/MUMNP/2010 |
| Edge optimized transrating system | | | |
| | UNITED STATES | 02-Dec-09 | 12/629,310 |
| FORWARDING MULTICAST TRAFFIC OVER LINK AGGREGATION PORTS | | | |
| | EUROPEAN PATENT CONVENT | 09-Dec-07 | 07827481.8 |
| HASH-BASED MULTI-HOMING | | | |
| | EUROPEAN PATENT CONVENT | 12-Nov-07 | 07827358.8 |
| METHOD FOR SUPPORTING MPLS TRANSPORT ENTITY RECOVERY WITH MULTIPLE PROTECTION ENTITIES | | | |
| | UNITED KINGDOM | 22-Jun-12 | 1400156.4 |
| METHOD FOR SUPPORTING SNCP OVER PACKET NETWORK | | | |
| | EUROPEAN PATENT CONVENT | 13-Apr-12 | 12772045.6 |
| | UNITED STATES | 8-Oct-15 | 14/878,405 |
| POINT-TO-MULTIPOINT FUNCTIONALITY IN A BRIDGED | | | |

| | | | |
|---|---|---|---|
| NETWORK | | | |
| | EUROPEAN PATENT CONVENT | 19-Jun-07 | 07736484.2 |
| | HONG KONG | 19-Jun-07 | 09110631.5 |
| RESOURCE SHARING AMONG NETWORK TUNNELS | | | |
| | ISRAEL | 14-Dec-06 | 192192 |
| ROUTE SELECTION WITH BANDWIDTH SHARING OPTIMIZATION OVER RINGS | | | |
| | EUROPEAN PATENT CONVENT | 03-Oct-06 | 06796145.8 |
| TRANSPARENT TRANSPORT OF FIBRE CHANNEL TRAFFIC OVER PACKET-SWITCHED NETWORKS | | | |
| | EUROPEAN PATENT CONVENT | 09-Jul-06 | 06756247 |
| A METHOD AND SYSTEM FOR DEEP PACKET INSPECTION IN SOFTWARE DEFINED NETWORKS | US | 21- April – 15 | PCT/US15/26869 |
| Tunnel provisioning with link aggregation | US | 25-Aug-15 | 14/834,480 |