

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6199885

|                                                                                                                                                                                                 |                                  |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                   |                       |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                       |                       |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                                  |                       |
|                                                                                                                                                                                                 | <b>Name</b>                      | <b>Execution Date</b> |
|                                                                                                                                                                                                 | GOOD TECHNOLOGY CORPORATION      | 05/27/2016            |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                  |                       |
| <b>Name:</b>                                                                                                                                                                                    | GOOD TECHNOLOGY HOLDINGS LIMITED |                       |
| <b>Street Address:</b>                                                                                                                                                                          | 2200 UNIVERSITY AVENUE EAST      |                       |
| <b>City:</b>                                                                                                                                                                                    | WATERLOO, ONTARIO                |                       |
| <b>State/Country:</b>                                                                                                                                                                           | CANADA                           |                       |
| <b>Postal Code:</b>                                                                                                                                                                             | N2K 0A7                          |                       |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                  |                       |
|                                                                                                                                                                                                 | <b>Property Type</b>             | <b>Number</b>         |
|                                                                                                                                                                                                 | Application Number:              | 16926361              |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                  |                       |
| <b>Fax Number:</b>                                                                                                                                                                              | (877)769-7945                    |                       |
| <i>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.</i> |                                  |                       |
| <b>Email:</b>                                                                                                                                                                                   | apsi@fr.com                      |                       |
| <b>Correspondent Name:</b>                                                                                                                                                                      | FISH & RICHARDSON P.C.           |                       |
| <b>Address Line 1:</b>                                                                                                                                                                          | P.O. BOX 1022                    |                       |
| <b>Address Line 4:</b>                                                                                                                                                                          | MINNEAPOLIS, MINNESOTA 55440     |                       |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 29717-2169003                    |                       |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | MONICA GAMEZ                     |                       |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Monica Gamez/                   |                       |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 07/14/2020                       |                       |
| <b>Total Attachments: 41</b>                                                                                                                                                                    |                                  |                       |
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**Confirmatory Assignment**

WHEREAS, APPCENTRAL, INC., BOXTONE, INC., COPIUN, INC., FIXMO U.S., INC., GOOD TECHNOLOGY CORPORATION, GOOD TECHNOLOGY SOFTWARE INC., INTERCASTING CORPORATION and MACHEEN, INC., each hereinafter referred to individually as a "Seller" and collectively as the "Sellers", is each the owner of all right, title, and interest in the respective patents and pending patent applications as identified in **Schedule A-1** attached hereto ("Assigned Properties"); and

WHEREAS, GOOD TECHNOLOGY HOLDINGS LIMITED, an Ontario corporation, hereinafter called the "**Purchaser**", has acquired all right, title, and interest in and to the Assigned Properties and all inventions therein disclosed pursuant to an Asset Purchase Agreement between the Sellers and the Purchaser dated May 26, 2016;

NOW THEREFORE, pursuant to other agreement(s) entered into by the parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Seller, the Seller hereby confirms that it has sold, assigned, transferred and set over unto the Purchaser, its successors and assigns, the Seller's entire right, title, and interest in, to, and under the Assigned Properties.

The Seller, on behalf of itself and its successors, assigns, other legal representatives, does hereby authorize the Purchaser, its successors, assigns, nominees or other legal representatives to amend the present Confirmatory Assignment to insert or correct any identifying information of the Assigned Properties as may be needed to record same.

This Confirmatory Assignment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute one and the same instrument. A facsimile copy of this Confirmatory Assignment, including the signature pages hereto, shall be deemed to be an original.

IN WITNESS WHEREOF, the parties have executed this Confirmatory Assignment effective as of May 27, 2016.

**GOOD TECHNOLOGY HOLDINGS LIMITED**

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

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

Title: \_\_\_\_\_

*Greg Best*  
*Secretary*

**PATENT**

**REEL: 053209 FRAME: 0772**

**APPCENTRAL, INC.**

By: 

Name: James Yersh  
Title: President

**BOXTONE, INC.**

By: 

Name: James Yersh  
Title: President

**COPIUN, INC.**

By: 

Name: James Yersh  
Title: President

**FIXMO US, INC.**

By: 

Name: James Yersh  
Title: President

**GOOD TECHNOLOGY CORPORATION**

By: 

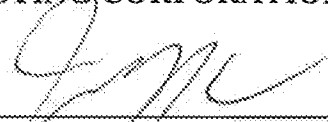
Name: James Yersh  
Title: President

**GOOD TECHNOLOGY SOFTWARE INC.**

By: 

Name: James Yersh  
Title: President

**INTERCASTING CORPORATION**

By: 

Name: James Yersh  
Title: President

**MACHEEN, INC.**

By: 

Name: James Yersh  
Title: President

**SCHEDULE A-1**

**Assigned Properties**

# SCHEDULE A

| Country | BlackBerry Case Reference | Title                                                                                                             | Serial No.        | Filing Date | Grant No.  | Grant Date |
|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------|-------------|------------|------------|
| US      | 46945-US-PRV              | SECURE MEDIA FOR IOS                                                                                              | 62/055,116        | 25-Sep-14   | EMPTY      | EMPTY      |
| WO      | 46945-WO-PCT              | Retrieving Media Content                                                                                          | PCT/US2015/051770 | 23-Sep-15   | EMPTY      | EMPTY      |
| NL      | 46990-3-NL-EPA            | EMAIL SYNC SYSTEM USING MAPI AND FORMAT TRANSLATION                                                               | 07102846-8        | 21-Jul-98   | EP1783675  | 15-Oct-08  |
| US      | 48688-US-PAT              | MEETING INTEGRATION FOR A MESSAGING AND SCHEDULING APPLICATION                                                    | 11/642363         | 18-Dec-06   | EMPTY      | EMPTY      |
| US      | 49615-US-CNT              | ENTERPRISE CONNECTIVITY TO HANDHELD DEVICES                                                                       | 09/220284         | 23-Dec-98   | 6324542    | 27-Nov-01  |
| US      | 49615-US-PAT              | ENTERPRISE CONNECTIVITY TO HANDHELD DEVICES                                                                       | 08/665422         | 18-Jun-96   | 5857201    | 5-Jan-99   |
| US      | 49615-US-REX              | ENTERPRISE CONNECTIVITY TO HANDHELD DEVICES                                                                       | 90/010124         | 14-Mar-08   | EMPTY      | EMPTY      |
| US      | 49615-US-REX[2]           | ENTERPRISE CONNECTIVITY TO HANDHELD DEVICES                                                                       | 90/010125         | 14-Mar-08   | EMPTY      | EMPTY      |
| US      | 49616-US-PAT              | SYSTEM AND METHOD FOR INSTALLING AND USING A TEMPORARY CERTIFICATE AT A REMOTE SITE                               | 09/081268         | 19-May-98   | 6233341    | 15-May-01  |
| US      | 49617-US-PAT              | SYSTEM AND METHOD FOR ENCRYPTING AND DECRYPTING FILES                                                             | 09/378226         | 19-Aug-99   | 7373517    | 13-May-08  |
| WO      | 49617-WO-PCT              | SYSTEM AND METHOD FOR ENCRYPTING AND DECRYPTING FILES                                                             | PCT/US2000/022812 | 18-Aug-00   | EMPTY      | EMPTY      |
| US      | 49618-US-PAT              | SYSTEM AND METHOD FOR AUTOMATICALLY FORWARDING EMAIL AND EMAIL EVENTS VIA A COMPUTER NETWORK TO A SERVER COMPUTER | 09/528363         | 17-Mar-00   | 7739334    | 15-Jun-10  |
| WO      | 49618-WO-PCT              | SYSTEM AND METHOD FOR AUTOMATICALLY FORWARDING EMAIL AND EMAIL EVENTS VIA A COMPUTER NETWORK TO A SERVER COMPUTER | PCT/US2001/008407 | 15-Mar-01   | EMPTY      | EMPTY      |
| US      | 49619-US-PAT              | METHOD AND SYSTEM FOR DETERMINING INFORMATION TO ACCESS AN ELECTRONIC MAIL ACCOUNT                                | 09/872859         | 1-Jun-01    | 7284045    | 16-Oct-07  |
| US      | 49620-US-PAT              | INTERACTIVE VOICE AND TEXT MESSAGE SYSTEM                                                                         | 09/884531         | 19-Jun-01   | 7444375    | 28-Oct-08  |
| DE      | 49621-DE-EPA              | SYSTEM AND METHOD FOR PERSON-TO-PERSON MESSAGING WITH A VALUE-ADDED SERVICE                                       | 2013573.7         | 20-Jun-02   | 60217766.9 | 24-Jan-07  |
| EP      | 49621-EP-EPA              | SYSTEM AND METHOD FOR PERSON-TO-PERSON MESSAGING WITH A VALUE-ADDED SERVICE                                       | 2013573.7         | 20-Jun-02   | 1271908    | 24-Jan-07  |
| FR      | 49621-FR-EPA              | SYSTEM AND METHOD FOR PERSON-TO-PERSON MESSAGING WITH A VALUE-ADDED SERVICE                                       | 2013573.7         | 20-Jun-02   | 1271908    | 24-Jan-07  |
| GB      | 49621-GB-EPA              | SYSTEM AND METHOD FOR PERSON-TO-PERSON MESSAGING WITH A VALUE-ADDED SERVICE                                       | 2013573.7         | 20-Jun-02   | 1271908    | 24-Jan-07  |

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| Country | BlackBerry Case Reference | Title                                                                                        | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|----------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| US      | 49621-US-PAT              | SYSTEM AND METHOD FOR PERSON-TO-PERSON MESSAGING WITH A VALUE-ADDED SERVICE                  | 09/896054         | 29-Jun-01   | 7389118   | 17-Jun-08  |
| US      | 49622-US-PAT              | SYSTEM AND METHOD FOR COMPRESSING DATA ON A BANDWIDTH-LIMITED NETWORK                        | 09/902060         | 9-Jul-01    | 7064688   | 20-Jun-06  |
| WO      | 49622-WO-PCT              | SYSTEM AND METHOD FOR COMPRESSING DATA ON A BANDWIDTH-LIMITED NETWORK                        | PCT/US2002/021544 | 8-Jul-02    | EMPTY     | EMPTY      |
| US      | 49623-US-PAT              | USER INTERFACE FOR A DATA PROCESSING APPARATUS                                               | 10/056313         | 23-Jan-02   | 6741232   | 24-May-04  |
| WO      | 49623-WO-PCT              | IMPROVED USER INTERFACE FOR A DATA PROCESSING APPARATUS                                      | PCT/US03/02272    | 23-Jan-03   | EMPTY     | EMPTY      |
| US      | 49624-US-PAT              | SERVER INITIATED SYNCHRONIZATION                                                             | 10/107032         | 26-Mar-02   | 7788382   | 31-Aug-10  |
| US      | 49625-US-PAT              | POWER MANAGEMENT AND DEVICE ILLUMINATION MECHANISMS FOR A PERSONAL DIGITAL ASSISTANT         | 10/114548         | 2-Apr-02    | 6726106   | 27-Apr-04  |
| US      | 49626-US-PAT              | DATA CARRIER DETECTOR FOR A PACKET-SWITCHED COMMUNICATION NETWORK                            | 10/117492         | 4-Apr-02    | 8094591   | 10-Jan-12  |
| US      | 49626-US-PRV              | DATA CARRIER DETECTOR FOR A PACKET-SWITCHED COMMUNICATION NETWORK                            | 60/365413         | 19-Mar-02   | EMPTY     | EMPTY      |
| US      | 49627-US-PAT              | ANTENNA SYSTEM FOR A WIRELESS DEVICE                                                         | 10/164819         | 6-Jun-02    | 6727856   | 27-Apr-04  |
| US      | 49628-US-PAT              | OPTIMIZED USER INTERFACE FOR SMALL SCREEN DEVICES                                            | 10/174715         | 18-Jun-02   | 7032181   | 18-Apr-06  |
| US      | 49628-US-PAT[2]           | OPTIMIZED USER INTERFACE FOR SMALL SCREEN DEVICES                                            | 10/252622         | 23-Sep-02   | EMPTY     | EMPTY      |
| US      | 49629-US-PAT              | SYSTEM AND METHOD FOR MODIFYING APPLICATION BEHAVIOR BASED ON NETWORK BANDWIDTH              | 10/191093         | 8-Jul-02    | 8516034   | 20-Aug-13  |
| US      | 49630-US-PAT              | METHOD AND APPARATUS FOR IMPLEMENTING A REAL-TIME EVENT MANAGEMENT PLATFORM                  | 10/236003         | 4-Sep-02    | 7454459   | 18-Nov-08  |
| US      | 49630-US-PRV              | METHOD AND APPARATUS FOR IMPLEMENTING A REAL-TIME EVENT MANAGEMENT PLATFORM                  | 60/317372         | 4-Sep-01    | EMPTY     | EMPTY      |
| US      | 49631-US-PAT              | SYSTEM AND METHOD FOR NOTIFYING MOBILE DEVICES BASED ON DEVICE TYPE AND NETWORK CAPABILITIES | 10/430943         | 7-May-03    | 7275073   | 25-Sep-07  |
| US      | 49632-US-PAT              | COLLABORATIVE DATA AND INTELLIGENT SYNCHRONIZATION FOR MOBILE DEVICES                        | 10/434138         | 8-May-03    | 7890091   | 15-Feb-11  |
| US      | 49633-US-PAT              | MULTIMEDIA CONTROL WITH ONE-CLICK DEVICE SELECTION                                           | 10/434967         | 9-May-03    | 7840631   | 23-Nov-10  |
| US      | 49633-US-REI              | MULTIMEDIA CONTROL WITH ONE-CLICK DEVICE SELECTION                                           | 13/684021         | 21-Nov-12   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                                                                | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| US      | 49634-US-PAT              | MOBILE APPLICATION BUILDER                                                                                                           | 10/436298         | 12-May-03   | 7184801   | 27-Feb-07  |
| US      | 49635-US-PAT              | SYSTEM AND METHOD FOR THIRD PARTY CREATION OF APPLICATIONS FOR MOBILE APPLIANCES                                                     | 13/087322         | 14-Apr-11   | 9135434   | 15-Sep-15  |
| US      | 49635-US-PRV              | SYSTEM AND METHOD FOR THIRD PARTY CREATION OF APPLICATIONS FOR MOBILE APPLIANCES                                                     | 61/342790         | 19-Apr-10   | EMPTY     | EMPTY      |
| US      | 49636-US-PAT              | METHODS FOR REMOTE CONFIGURATION OF SOFTWARE APPLICATIONS                                                                            | 13/745226         | 18-Nov-13   | EMPTY     | EMPTY      |
| CN      | 49637-CN-PCT              | CENTRALIZED SELECTIVE APPLICATION APPROVAL FOR MOBILE DEVICES                                                                        | 201480043455.X    | 30-Jul-14   | EMPTY     | EMPTY      |
| EP      | 49637-EP-EPT              | CENTRALIZED SELECTIVE APPLICATION APPROVAL FOR MOBILE DEVICES                                                                        | 14753374.9        | 30-Jul-14   | EMPTY     | EMPTY      |
| US      | 49637-US-CNT              | CENTRALIZED SELECTIVE APPLICATION APPROVAL FOR MOBILE DEVICES                                                                        | 15/068081         | 11-Mar-16   | EMPTY     | EMPTY      |
| US      | 49637-US-PAT              | CENTRALIZED SELECTIVE APPLICATION APPROVAL FOR MOBILE DEVICES                                                                        | 13/955622         | 31-Jul-13   | 9305162   | 5-Apr-16   |
| WO      | 49637-WO-PCT              | CENTRALIZED SELECTIVE APPLICATION APPROVAL FOR MOBILE DEVICES                                                                        | PCT/US2014/048968 | 30-Jul-14   | EMPTY     | EMPTY      |
| US      | 49638-US-PAT              | COMMUNICATION SYSTEM AND METHOD FOR COMPRESSING INFORMATION SENT BY A COMMUNICATION DEVICE TO A TARGET PORTABLE COMMUNICATION DEVICE | 10/721449         | 25-Nov-03   | 7039394   | 2-May-06   |
| US      | 49639-US-PAT              | COMMUNICATION SYSTEM AND METHOD WITH MOBILE DEVICES                                                                                  | 10/964912         | 13-Oct-04   | 7620001   | 17-Nov-09  |
| CA      | 49640-CA-PAT              | CONTEXT-AWARE RISK MEASUREMENT MOBILE DEVICE MANAGEMENT SYSTEM                                                                       | 2852572           | 28-May-14   | EMPTY     | EMPTY      |
| US      | 49640-US-PAT              | CONTEXT-AWARE RISK MEASUREMENT MOBILE DEVICE MANAGEMENT SYSTEM                                                                       | 13/906893         | 31-May-13   | EMPTY     | EMPTY      |
| US      | 49641-US-CNT              | METHOD AND SYSTEM FOR DISTRIBUTING AND UPDATING SOFTWARE IN WIRELESS DEVICES                                                         | 12/577428         | 12-Oct-09   | 8078157   | 13-Dec-11  |
| US      | 49641-US-PAT              | METHOD AND SYSTEM FOR DISTRIBUTING AND UPDATING SOFTWARE IN WIRELESS DEVICES                                                         | 11/363582         | 27-Feb-06   | 7620392   | 17-Nov-09  |
| US      | 49641-US-REI              | METHOD AND SYSTEM FOR DISTRIBUTING AND UPDATING SOFTWARE IN WIRELESS DEVICES                                                         | 14/106534         | 13-Dec-13   | EMPTY     | EMPTY      |
| CA      | 49642-CA-PAT              | EXPLOIT DETECTION AND REPORTING OF A DEVICE USING SERVER CHAINING                                                                    | 2835933           | 6-Dec-13    | EMPTY     | EMPTY      |

# SCHEDULE A

| Country | BlackBerry Case Reference | Title                                                                                                               | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| US      | 49642-US-PAT              | EXPLOIT DETECTION AND REPORTING OF A DEVICE USING SERVER CHAINING                                                   | 13/716852         | 17-Dec-12   | EMPTY     | EMPTY      |
| US      | 49643-US-PAT              | HANDLING OF CONTENT IN A DATA PROCESSING DEVICE                                                                     | 10/923650         | 20-Aug-04   | 7672978   | 2-Mar-10   |
| CN      | 49644-CN-PCT              | CLIPBOARD MANAGEMENT                                                                                                | 2.0148E+11        | 7-Jan-14    | EMPTY     | EMPTY      |
| EP      | 49644-EP-EPT              | CLIPBOARD MANAGEMENT                                                                                                | 14738085.1        | 7-Jan-14    | EMPTY     | EMPTY      |
| HK      | 49644-HK-FPR              | CLIPBOARD MANAGEMENT                                                                                                | 16103757.9        | 1-Apr-16    | EMPTY     | EMPTY      |
| US      | 49644-US-CNT              | CLIPBOARD MANAGEMENT                                                                                                | 14/793115         | 7-Jul-15    | EMPTY     | EMPTY      |
| US      | 49644-US-PRV              | CLIPBOARD MANAGEMENT                                                                                                | 61/750108         | 8-Jan-13    | EMPTY     | EMPTY      |
| WO      | 49644-WO-PCT              | CLIPBOARD MANAGEMENT                                                                                                | PCT/US2014/010559 | 7-Jan-14    | EMPTY     | EMPTY      |
| IL      | 49645-IL-PAT              | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A FIREWALL PROTECTED NETWORK | 125977            | 28-Aug-98   | 125977    | 13-Apr-03  |
| US      | 49646-US-PAT              | PASSWORD RETRIEVAL SYSTEM AND METHOD INVOLVING TOKEN USAGE WITHOUT PRIOR KNOWLEDGE OF THE PASSWORD                  | 14/263836         | 28-Apr-14   | EMPTY     | EMPTY      |
| US      | 49647-US-PAT              | WIRELESS DEVICE DORMANCY OVERRIDE                                                                                   | 11/146820         | 7-Jun-05    | 7590403   | 15-Sep-09  |
| US      | 49648-US-PAT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                                       | 15/097170         | 12-Apr-16   | EMPTY     | EMPTY      |
| US      | 49648-US-PRV              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                                       | 62/147933         | 15-Apr-15   | EMPTY     | EMPTY      |
| WO      | 49648-WO-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                                       | PCT/US2016/027149 | 12-Apr-16   | EMPTY     | EMPTY      |
| CN      | 49649-CN-PCT              | METHOD FOR DISPLAYING A DATA SET                                                                                    | 2.0118E+11        | 21-Oct-11   | EMPTY     | EMPTY      |
| EP      | 49649-EP-EPT              | METHOD FOR DISPLAYING A DATA SET                                                                                    | 11782076.1        | 21-Oct-11   | EMPTY     | EMPTY      |
| US      | 49649-US-PAT              | DISPLAYING SELECTED PORTIONS OF DATA SETS ON DISPLAY DEVICES                                                        | 12/912571         | 26-Oct-10   | EMPTY     | EMPTY      |
| WO      | 49649-WO-PCT              | METHOD FOR DISPLAYING A DATA SET                                                                                    | PCT/EP2011/068458 | 21-Oct-11   | EMPTY     | EMPTY      |
| CN      | 49650-CN-PCT              | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                           | 2.0128E+11        | 6-Feb-12    | EMPTY     | EMPTY      |
| EP      | 49650-EP-EPT              | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                           | 12705012.8        | 6-Feb-12    | EMPTY     | EMPTY      |
| US      | 49650-US-CNT              | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                           | 13/845435         | 18-Mar-13   | EMPTY     | EMPTY      |

# SCHEDULE A

| Country | BlackBerry Case Reference | Title                                                                                                                     | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| US      | 49650-US-CNT[2]           | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                                 | 14/973290         | 17-Dec-15   | EMPTY     | EMPTY      |
| US      | 49650-US-PAT              | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                                 | 13/025984         | 11-Feb-11   | 8407776   | 26-Mar-13  |
| WO      | 49650-WO-PCT              | METHOD, APPARATUS AND SYSTEM FOR PROVISIONING A PUSH NOTIFICATION SESSION                                                 | PCT/US2012/024021 | 6-Feb-12    | EMPTY     | EMPTY      |
| EP      | 49651-EP-EPT              | SYSTEM, APPARATUS AND ASSOCIATED METHODOLOGY FOR ENRICHING CONTACT OF A REMOTE CLIENT                                     | 9812250           | 4-Sep-09    | EMPTY     | EMPTY      |
| US      | 49651-US-CNT              | SYSTEM, APPARATUS AND ASSOCIATED METHODOLOGY FOR ENRICHING CONTACT OF A REMOTE CLIENT                                     | 14/567992         | 11-Dec-14   | EMPTY     | EMPTY      |
| US      | 49651-US-PAT              | SYSTEM, APPARATUS AND ASSOCIATED METHODOLOGY FOR ENRICHING CONTACT OF A REMOTE CLIENT                                     | 12/554428         | 4-Sep-09    | 8942675   | 27-Jan-15  |
| US      | 49651-US-PRV              | SYSTEM AND ASSOCIATED METHODOLOGY OF ENRICHING CONTACTS OF A REMOTE CLIENT                                                | 61/094450         | 5-Sep-08    | EMPTY     | EMPTY      |
| WO      | 49651-WO-PCT              | SYSTEM, APPARATUS AND ASSOCIATED METHODOLOGY FOR ENRICHING CONTACT OF A REMOTE CLIENT                                     | PCT/US2009/055962 | 4-Sep-09    | EMPTY     | EMPTY      |
| US      | 49652-US-CNT              | SYSTEM AND METHOD OF DATA SECURITY IN SYNCHRONIZING DATA WITH A WIRELESS DEVICE                                           | 13/183138         | 14-Jul-11   | 8429128   | 23-Apr-13  |
| US      | 49652-US-CNT[2]           | SYSTEM AND METHOD OF DATA SECURITY IN SYNCHRONIZING DATA WITH A WIRELESS DEVICE                                           | 13/847621         | 20-Mar-13   | 9158829   | 13-Oct-15  |
| US      | 49652-US-PAT              | SYSTEM AND METHOD OF DATA SECURITY IN SYNCHRONIZING DATA WITH A WIRELESS DEVICE                                           | 11/261529         | 28-Oct-05   | 8001082   | 16-Aug-11  |
| US      | 49652-US-PRV              | SYSTEM AND METHOD OF DATA SECURITY IN SYNCHRONIZING DATA WITH A PDA                                                       | 60/622813         | 28-Oct-04   | EMPTY     | EMPTY      |
| JP      | 49653-JP-PAT              | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK                          | 10-251467         | 4-Sep-98    | 3474453   | 19-Sep-03  |
| CN      | 49654-CN-PCT              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | 2.0088E+11        | 5-Nov-08    | EMPTY     | EMPTY      |
| EP      | 49654-EP-EPT              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | 8847344.2         | 5-Nov-08    | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                                                     | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| IN      | 49654-IN-PCT              | SERVICE MANAGEMENT SYSTEM FOR PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT                         | 3107/DELNP/2010   | 5-Nov-08    | EMPTY      | EMPTY      |
| KR      | 49654-KR-PCT              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | 10-2010-7010463   | 5-Nov-08    | EMPTY      | EMPTY      |
| US      | 49654-US-CNT              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | 12/770936         | 30-Apr-10   | 8150431    | 3-Apr-12   |
| US      | 49654-US-PRV              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | 60/985354         | 5-Nov-07    | EMPTY      | EMPTY      |
| WO      | 49654-WO-PCT              | SERVICE MANAGEMENT SYSTEM & ASSOCIATED METHODOLOGY OF PROVIDING SERVICE RELATED MESSAGE PRIORITIZATION IN A MOBILE CLIENT | PCT/US2008/082450 | 5-Nov-08    | EMPTY      | EMPTY      |
| US      | 49655-US-PRV              | MANAGING APPLICATIONS                                                                                                     | 62/047573         | 8-Sep-14    | EMPTY      | EMPTY      |
| WO      | 49655-WO-PCT              | SHARED LOCK STATE                                                                                                         | PCT/US2015/048685 | 4-Sep-15    | EMPTY      | EMPTY      |
| US      | 49656-US-PRV              | MANAGING APPLICATIONS                                                                                                     | 62/047416         | 8-Sep-14    | EMPTY      | EMPTY      |
| WO      | 49656-WO-PCT              | MONITORING USER ACTIVITY                                                                                                  | PCT/US2015/048706 | 4-Sep-15    | EMPTY      | EMPTY      |
| US      | 49657-US-PRV              | MESSAGE SERVICE                                                                                                           | 62/055202         | 25-Sep-14   | EMPTY      | EMPTY      |
| WO      | 49657-WO-PCT              | MESSAGE SERVICE                                                                                                           | PCT/US2015/051771 | 23-Sep-15   | EMPTY      | EMPTY      |
| US      | 49658-US-PAT              | MANAGING ACCESS TO RESOURCES                                                                                              | 15/053805         | 25-Feb-16   | EMPTY      | EMPTY      |
| US      | 49658-US-PRV              | MANAGING ACCESS TO RESOURCES                                                                                              | 62/199487         | 31-Jul-15   | EMPTY      | EMPTY      |
| WO      | 49658-WO-PCT              | MANAGING ACCESS TO RESOURCES                                                                                              | PCT/US2016/019631 | 25-Feb-16   | EMPTY      | EMPTY      |
| CN      | 49659-CN-PCT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                                             | 99813140.7        | 21-Sep-99   | 99813140.7 | 26-Nov-03  |
| DE      | 49659-DE-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                                             | 99948341.5        | 21-Sep-99   | 69944690.2 | 3-Apr-13   |
| EA      | 49659-EA-EAT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                                             | 200100420         | 21-Sep-99   | EMPTY      | EMPTY      |
| EP      | 49659-EP-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                                             | 99948341.5        | 21-Sep-99   | 1127321    | 3-Apr-13   |
| ES      | 49659-ES-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                                             | 99948341.5        | 21-Sep-99   | 1127321    | 3-Apr-13   |

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| Country | BlackBerry Case Reference | Title                                                                                            | Serial No.        | Filing Date | Grant No. | Grant Date |
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| FR      | 49659-FR-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 99948341.5        | 21-Sep-99   | 1127321   | 3-Apr-13   |
| GB      | 49659-GB-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 99948341.5        | 21-Sep-99   | 1127321   | 3-Apr-13   |
| HK      | 49659-HK-FPR              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 20020104217       | 4-Jun-02    | 1042572   | 8-Oct-04   |
| JP      | 49659-JP-PCT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 2000-575049       | 21-Sep-99   | 4757384   | 10-Jun-11  |
| NL      | 49659-NL-EPT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 99948341.5        | 21-Sep-99   | 1127321   | 3-Apr-13   |
| US      | 49659-US-PAT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | 09/167044         | 5-Oct-98    | 6131096   | 10-Oct-00  |
| WO      | 49659-WO-PCT              | SYSTEM AND METHOD FOR UPDATING A REMOTE DATABASE IN A NETWORK                                    | PCT/US1999/021723 | 21-Sep-99   | EMPTY     | EMPTY      |
| US      | 49660-1-US-CNT            | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 09/179252         | 26-Oct-98   | 5968131   | 19-Oct-99  |
| US      | 49660-1-US-PAT            | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 08/835997         | 11-Apr-97   | 6085192   | 4-Jul-00   |
| US      | 49660-1-US-REX            | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 90/010242         | 11-Aug-08   | EMPTY     | EMPTY      |
| US      | 49660-1-US-REX[2]         | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 90/010259         | 28-Aug-08   | EMPTY     | EMPTY      |
| US      | 49660-1-US-REX[3]         | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 90/010442         | 4-Mar-09    | EMPTY     | EMPTY      |
| US      | 49660-1-US-REX[4]         | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK | 90/008062         | 23-Jun-06   | EMPTY     | EMPTY      |
| US      | 49660-1-US-REX[5]         | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A                                | 90/007040         | 18-May-04   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No. | Filing Date | Grant No. | Grant Date |
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|         |                           | WORKSPACE ELEMENT IN A NETWORK                                                                     |            |             |           |            |
| US      | 49660-1-US-REX[6]         | SYSTEM AND METHOD FOR SECURELY SYNCHRONIZING MULTIPLE COPIES OF A WORKSPACE ELEMENT IN A NETWORK   | 90/007093  | 18-Jun-04   | EMPTY     | EMPTY      |
| US      | 49660-2-US-PAT            | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                     | 08/841950  | 8-Apr-97    | 7287271   | 23-Oct-07  |
| US      | 49660-2-US-REX            | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                     | 90/010499  | EMPTY       | EMPTY     | EMPTY      |
| AT      | 49660-3-AT-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |
| AT      | 49660-3-AT-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| AT      | 49660-3-AT-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| AT      | 49660-3-AT-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| BE      | 49660-3-BE-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| CA      | 49660-3-CA-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 2296432    | 21-Jul-98   | EMPTY     | EMPTY      |
| CH      | 49660-3-CH-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| CN      | 49660-3-CN-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98808393   | 21-Jul-98   | EMPTY     | EMPTY      |
| CY      | 49660-3-CY-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| DE      | 49660-3-DE-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR                                                    | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No. | Filing Date | Grant No. | Grant Date |
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|         |                           | TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK                                                 |            |             |           |            |
| DE      | 49660-3-DE-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| DE      | 49660-3-DE-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| DE      | 49660-3-DE-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| DK      | 49660-3-DK-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| EP      | 49660-3-EP-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |
| EP      | 49660-3-EP-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| EP      | 49660-3-EP-EPT            | SYSTEM AND METHOD FOR SYNCHRONIZING ELECTRONIC MAIL ACROSS A NETWORK                               | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| EP      | 49660-3-EP-ETD            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6075422.3  | 21-Jul-98   | EMPTY     | EMPTY      |
| EP      | 49660-3-EP-ETD[1]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7122412.5  | 21-Jul-98   | EMPTY     | EMPTY      |
| EP      | 49660-3-EP-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| EP      | 49660-3-EP-ETD[3]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 10162316.3 | 21-Jul-98   | EMPTY     | EMPTY      |
| ES      | 49660-3-ES-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |
| ES      | 49660-3-ES-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No. | Filing Date | Grant No. | Grant Date |
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| ES      | 49660-3-ES-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| ES      | 49660-3-ES-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| FI      | 49660-3-FI-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| FI      | 49660-3-FI-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| FR      | 49660-3-FR-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |
| FR      | 49660-3-FR-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| FR      | 49660-3-FR-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| FR      | 49660-3-FR-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| GB      | 49660-3-GB-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8  | 21-Jul-98   | 1783675   | 15-Oct-08  |
| GB      | 49660-3-GB-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4  | 21-Jul-98   | 1785927   | 15-Oct-08  |
| GB      | 49660-3-GB-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| GB      | 49660-3-GB-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8  | 21-Jul-98   | 1722321   | 15-Oct-08  |
| GR      | 49660-3-GR-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9 | 21-Jul-98   | 996905    | 24-May-06  |
| HK      | 49660-3-HK-FPR            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR                                                    | 106992.5   | 2-Nov-00    | 1028283   | 21-Jul-06  |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No.  | Filing Date | Grant No. | Grant Date |
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|         |                           | TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK                                                 |             |             |           |            |
| IE      | 49660-3-IE-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| IL      | 49660-3-IL-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 134138      | 21-Jul-98   | 134138    | 21-Sep-04  |
| IT      | 49660-3-IT-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4   | 21-Jul-98   | 1785927   | 15-Oct-08  |
| IT      | 49660-3-IT-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| JP      | 49660-3-JP-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 2000-504527 | 21-Jul-98   | 3532854   | 12-Mar-04  |
| LU      | 49660-3-LU-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| MC      | 49660-3-MC-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| NL      | 49660-3-NL-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8   | 21-Jul-98   | 1783675   | 15-Oct-08  |
| NL      | 49660-3-NL-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7103428.4   | 21-Jul-98   | 1785927   | 15-Oct-08  |
| NL      | 49660-3-NL-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| NL      | 49660-3-NL-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 6009953.8   | 21-Jul-98   | 1722321   | 15-Oct-08  |
| PT      | 49660-3-PT-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98936865.9  | 21-Jul-98   | 996905    | 24-May-06  |
| SE      | 49660-3-SE-EPA            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 7102846.8   | 21-Jul-98   | 1783675   | 15-Oct-08  |

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| Country | BlackBerry Case Reference | Title                                                                                                           | Serial No.        | Filing Date | Grant No. | Grant Date |
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| SE      | 49660-3-SE-EPA[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 7103428.4         | 21-Jul-98   | 1785927   | 15-Oct-08  |
| SE      | 49660-3-SE-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 98936865.9        | 21-Jul-98   | 996905    | 24-May-06  |
| SE      | 49660-3-SE-ETD[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 6009953.8         | 21-Jul-98   | 1722321   | 15-Oct-08  |
| SG      | 49660-3-SG-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 2000002212        | 21-Jul-98   | EMPTY     | EMPTY      |
| US      | 49660-3-US-CIP            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 08/897888         | 22-Jul-97   | 5961590   | 5-Oct-99   |
| US      | 49660-3-US-CNT            | SYSTEM AND METHOD FOR SYNCHRONIZING ELECTRONIC MAIL BETWEEN A CLIENT SITE AND A CENTRAL SITE                    | 08/897888         | 22-Jul-97   | 5961590   | 5-Oct-99   |
| US      | 49660-3-US-PAT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 08/865075         | 29-May-97   | 6023708   | 8-Feb-00   |
| US      | 49660-3-US-REX            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 90/010495         | 14-Apr-09   | EMPTY     | EMPTY      |
| US      | 49660-3-US-REX[2]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 90/007421         | 15-Feb-05   | EMPTY     | EMPTY      |
| US      | 49660-3-US-REX[3]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | 90/007933         | 10-Feb-06   | EMPTY     | EMPTY      |
| WO      | 49660-3-WO-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK              | PCT/US1998/014742 | 21-Jul-98   | EMPTY     | EMPTY      |
| US      | 49660-4-US-CIP            | SYSTEM AND METHOD FOR USING AN AUTHENTICATION APPLLET TO IDENTIFY AND AUTHENTICATE A USER IN A COMPUTER NETWORK | 08/899277         | 23-Jul-97   | 6766454   | 20-Jul-04  |
| WO      | 49660-4-WO-PCT            | SYSTEM AND METHOD FOR USING AN AUTHENTICATION APPLLET TO IDENTIFY AND AUTHENTICATE A USER IN A COMPUTER NETWORK | PCT/US1998/015036 | 21-Jul-98   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                           | Serial No. | Filing Date | Grant No.  | Grant Date |
|---------|---------------------------|-------------------------------------------------------------------------------------------------|------------|-------------|------------|------------|
| AT      | 49660-5-AT-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066    | 29-Sep-10  |
| CA      | 49660-5-CA-PAT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2616759    | 23-Jul-98   | EMPTY      | EMPTY      |
| CA      | 49660-5-CA-PAT[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2616759    | 23-Jul-98   | EMPTY      | EMPTY      |
| CA      | 49660-5-CA-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2297969    | 23-Jul-98   | EMPTY      | EMPTY      |
| CN      | 49660-5-CN-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98808695.6 | 23-Jul-98   | 98808695.6 | 12-Oct-05  |
| DE      | 49660-5-DE-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066    | 29-Sep-10  |
| DE      | 49660-5-DE-ETD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10151490.9 | 23-Jul-98   | 2172852    | 7-Jan-15   |
| DE      | 49660-5-DE-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESING UNIFIED INFORMATION IN A COMPUTER NETWORK  | 10163803.9 | 23-Jul-98   | EP2224673  | 20-Jun-12  |
| DE      | 49660-5-DE-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | 2224673    | 20-Jun-12  |
| EP      | 49660-5-EP-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066    | 29-Sep-10  |
| EP      | 49660-5-EP-ETD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10151490.9 | 23-Jul-98   | 2172852    | 7-Jan-15   |

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| Country | BlackBerry Case Reference | Title                                                                                           | Serial No. | Filing Date | Grant No. | Grant Date |
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| EP      | 49660-5-EP-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10184763   | 23-Jul-98   | EMPTY     | EMPTY      |
| EP      | 49660-5-EP-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | 2224673   | 20-Jun-12  |
| ES      | 49660-5-ES-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066   | 29-Sep-10  |
| ES      | 49660-5-ES-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | 2389882   | 20-Jun-12  |
| ES      | 49660-5-ES-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | 2224673   | 20-Jun-12  |
| FR      | 49660-5-FR-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066   | 29-Sep-10  |
| FR      | 49660-5-FR-ETD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10151490.9 | 23-Jul-98   | 2172852   | 7-Jan-15   |
| FR      | 49660-5-FR-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | EP2224673 | 20-Jun-12  |
| FR      | 49660-5-FR-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9 | 23-Jul-98   | 2224673   | 20-Jun-12  |
| GB      | 49660-5-GB-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6 | 23-Jul-98   | 1018066   | 29-Sep-10  |
| GB      | 49660-5-GB-ETD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10151490.9 | 23-Jul-98   | 2172852   | 7-Jan-15   |

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| Country | BlackBerry Case Reference | Title                                                                                           | Serial No.  | Filing Date | Grant No. | Grant Date |
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| GB      | 49660-5-GB-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9  | 23-Jul-98   | EP2224673 | 20-Jun-12  |
| GB      | 49660-5-GB-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9  | 23-Jul-98   | 2224673   | 20-Jun-12  |
| IL      | 49660-5-IL-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 134231      | 23-Jul-98   | EMPTY     | EMPTY      |
| JP      | 49660-5-JP-PCD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2009-045801 | 27-Feb-09   | 4563488   | 6-Aug-10   |
| JP      | 49660-5-JP-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2000-505563 | 23-Jul-98   | EMPTY     | EMPTY      |
| NL      | 49660-5-NL-EPT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 98936975.6  | 23-Jul-98   | 1018066   | 29-Sep-10  |
| NL      | 49660-5-NL-ETD            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10151490.9  | 23-Jul-98   | 2172852   | 7-Jan-15   |
| NL      | 49660-5-NL-ETD[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9  | 23-Jul-98   | EP2224673 | 20-Jun-12  |
| NL      | 49660-5-NL-ETD[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 10163803.9  | 23-Jul-98   | 2224673   | 20-Jun-12  |
| SG      | 49660-5-SG-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 2000003525  | 23-Jul-98   | EMPTY     | EMPTY      |
| US      | 49660-5-US-CIP            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK | 08/903118   | 30-Jul-97   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No. | Filing Date | Grant No. | Grant Date |
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| US      | 49660-5-US-CNT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 09/666877  | 20-Sep-00   | 6708221   | 16-Mar-04  |
| US      | 49660-5-US-CNT[10]        | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 12/489318  | 22-Jun-09   | 8812702   | 19-Aug-14  |
| US      | 49660-5-US-CNT[11]        | GLOBAL SERVER FOR AUTHENTICATING ACCESS TO REMOTE SERVICES                                         | 12/489326  | 22-Jun-09   | 8117344   | 14-Feb-12  |
| US      | 49660-5-US-CNT[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 10/741113  | 19-Dec-03   | 7039679   | 2-May-06   |
| US      | 49660-5-US-CNT[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 11/340083  | 25-Jan-06   | EMPTY     | EMPTY      |
| US      | 49660-5-US-CNT[4]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 12/480500  | 8-Jun-09    | 8745167   | 3-Jun-14   |
| US      | 49660-5-US-CNT[5]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 12/575387  | 7-Oct-09    | EMPTY     | EMPTY      |
| US      | 49660-5-US-CNT[6]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 13/038801  | 2-Mar-11    | 9361603   | 7-Jun-16   |
| US      | 49660-5-US-CNT[7]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 09/921228  | 1-Aug-01    | 7225231   | 29-May-07  |
| US      | 49660-5-US-CNT[8]         | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 11/693323  | 29-Mar-07   | EMPTY     | EMPTY      |
| US      | 49660-5-US-CNT[9]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 12/558208  | 11-Sep-09   | EMPTY     | EMPTY      |
| US      | 49660-5-US-REX            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED                                      | 90/008131  | 27-Jul-06   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No.        | Filing Date | Grant No.  | Grant Date |
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|         |                           | INFORMATION IN A COMPUTER NETWORK                                                                  |                   |             |            |            |
| US      | 49660-5-US-REX[2]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 90/008162         | 11-Aug-06   | EMPTY      | EMPTY      |
| US      | 49660-5-US-REX[3]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 90/008397         | 29-Dec-06   | EMPTY      | EMPTY      |
| US      | 49660-5-US-REX[4]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 90/008981         | 9-Jan-08    | EMPTY      | EMPTY      |
| US      | 49660-5-US-REX[5]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 90/010299         | 2-Oct-08    | EMPTY      | EMPTY      |
| US      | 49660-5-US-REX[6]         | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | 95/001086         | 2-Oct-08    | EMPTY      | EMPTY      |
| WO      | 49660-5-WO-PCT            | SYSTEM AND METHOD FOR GLOBALLY AND SECURELY ACCESSING UNIFIED INFORMATION IN A COMPUTER NETWORK    | PCT/US1998/015155 | 23-Jul-98   | EMPTY      | EMPTY      |
| CA      | 49660-6-CA-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 2340711           | 21-Aug-98   | EMPTY      | EMPTY      |
| CN      | 49660-6-CN-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98814247.3        | 21-Aug-98   | 98814247.3 | 18-Feb-04  |
| EA      | 49660-6-EA-EAT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 200100258         | 21-Aug-98   | 2656       | 26-Dec-02  |
| EP      | 49660-6-EP-EPT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 98941023.8        | 21-Aug-98   | EMPTY      | EMPTY      |
| IL      | 49660-6-IL-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 141493            | 21-Aug-98   | EMPTY      | EMPTY      |
| JP      | 49660-6-JP-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR                                                    | 2000-566755       | 21-Aug-98   | EMPTY      | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                              | Serial No.        | Filing Date | Grant No. | Grant Date |
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|         |                           | TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK                                                 |                   |             |           |            |
| SG      | 49660-6-SG-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | 2001009364        | 21-Aug-98   | EMPTY     | EMPTY      |
| WO      | 49660-6-WO-PCT            | SYSTEM AND METHOD FOR USING A GLOBAL TRANSLATOR TO SYNCHRONIZE WORKSPACE ELEMENTS ACROSS A NETWORK | PCT/US1998/017365 | 21-Aug-98   | EMPTY     | EMPTY      |
| US      | 49660-US-PAT              | SYSTEM AND METHOD FOR GLOBALLY ACCESSING COMPUTER SERVICES                                         | 08/766307         | 13-Dec-96   | 6131116   | 10-Oct-00  |
| US      | 49660-US-REX              | SYSTEM AND METHOD FOR GLOBALLY ACCESSING COMPUTER SERVICES                                         | 90/010498         | 21-Apr-09   | EMPTY     | EMPTY      |
| WO      | 49660-WO-PCT              | SYSTEM AND METHOD FOR GLOBALLY ACCESSING COMPUTER SERVICES                                         | PCT/US1997/022784 | 10-Dec-97   | EMPTY     | EMPTY      |
| CA      | 49661-1-CA-PCT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 2483887           | 30-Apr-03   | EMPTY     | EMPTY      |
| DE      | 49661-1-DE-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 11-Nov-09  |
| DE      | 49661-1-DE-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| EP      | 49661-1-EP-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 11-Nov-09  |
| EP      | 49661-1-EP-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| ES      | 49661-1-ES-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 11-Nov-09  |
| ES      | 49661-1-ES-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| FR      | 49661-1-FR-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 11-Nov-09  |
| FR      | 49661-1-FR-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| GB      | 49661-1-GB-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 11-Nov-09  |
| GB      | 49661-1-GB-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| JP      | 49661-1-JP-PCT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 2004-502182       | 30-Apr-03   | 4588443   | 17-Sep-10  |
| NL      | 49661-1-NL-EPT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 3726541           | 30-Apr-03   | 1502199   | 10-Nov-09  |
| NL      | 49661-1-NL-ETD            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 9175614.8         | 14-Jul-10   | 2207328   | 20-Mar-13  |
| NO      | 49661-1-NO-PCT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 20045179          | 30-Apr-03   | EMPTY     | EMPTY      |
| US      | 49661-1-US-CIP            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 10/425981         | 30-Apr-03   | EMPTY     | EMPTY      |
| US      | 49661-1-US-CNT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                                                           | 11/872633         | 15-Oct-07   | 8412805   | 2-Apr-13   |

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| Country | BlackBerry Case Reference | Title                                                          | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| US      | 49661-1-US-CNT[2]         | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                       | 12/900128         | 7-Oct-10    | 9407695    | 2-Aug-16   |
| US      | 49661-1-US-PRV            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                       | 60/376962         | 30-Apr-02   | EMPTY      | EMPTY      |
| WO      | 49661-1-WO-PCT            | ADAPTIVE SYNCHRONIZATION OF SERVICE DATA                       | PCT/US2003/013413 | 30-Apr-03   | EMPTY      | EMPTY      |
| CA      | 49661-CA-PCT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2449753           | 31-May-02   | EMPTY      | EMPTY      |
| DE      | 49661-DE-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| EP      | 49661-EP-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| ES      | 49661-ES-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| FR      | 49661-FR-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| GB      | 49661-GB-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| JP      | 49661-JP-PCD              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2008-256561       | 1-Oct-08    | EMPTY      | EMPTY      |
| JP      | 49661-JP-PCT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2003-502698       | 31-May-02   | EMPTY      | EMPTY      |
| NL      | 49661-NL-EPT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 2737257.2         | 31-May-02   | 1393185    | 23-Mar-11  |
| US      | 49661-US-PAT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 09/872753         | 1-Jun-01    | 7228383    | 5-Jun-07   |
| US      | 49661-US-REI              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 12/805448         | 30-Jul-10   | EMPTY      | EMPTY      |
| US      | 49661-US-REX              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | 95/000332         | 8-Jan-08    | EMPTY      | EMPTY      |
| WO      | 49661-WO-PCT              | SYSTEM AND METHOD FOR PROGRESSIVE AND HIERARCHICAL CACHING     | PCT/US2002/016951 | 31-May-02   | EMPTY      | EMPTY      |
| CN      | 49662-CN-PCT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE | 3813261.3         | 23-Apr-03   | 100593165  | 3-Mar-10   |
| DE      | 49662-DE-EPT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE | 3726450.4         | 23-Apr-03   | 60320803.7 | 7-May-08   |
| EP      | 49662-EP-EPT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE | 3726450.4         | 23-Apr-03   | 1532538    | 7-May-08   |

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| Country | BlackBerry Case Reference | Title                                                                          | Serial No.        | Filing Date | Grant No.  | Grant Date |
|---------|---------------------------|--------------------------------------------------------------------------------|-------------------|-------------|------------|------------|
| ES      | 49662-ES-EPT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | 3726450.4         | 23-Apr-03   | 1532538    | 7-May-08   |
| FR      | 49662-FR-EPT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | 3726450.4         | 23-Apr-03   | 1532538    | 7-May-08   |
| GB      | 49662-GB-EPT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | 3726450.4         | 23-Apr-03   | 1532538    | 7-May-08   |
| JP      | 49662-JP-PCT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | 2004/500200       | 23-Apr-03   | EMPTY      | EMPTY      |
| US      | 49662-US-PAT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | 10/133817         | 24-Apr-02   | 7447799    | 4-Nov-08   |
| WO      | 49662-WO-PCT              | SYSTEM AND METHOD FOR AUTOMATICALLY UPDATING A WIRELESS DEVICE                 | PCT/US2003/012799 | 23-Apr-03   | EMPTY      | EMPTY      |
| AU      | 49663-AU-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 2003259893        | 9-Aug-03    | 2003259893 | 25-Jun-09  |
| CA      | 49663-CA-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 2495083           | 9-Aug-03    | EMPTY      | EMPTY      |
| CN      | 49663-CN-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3822497.6         | 9-Aug-03    | 3822497.6  | 9-Aug-03   |
| DE      | 49663-DE-EPT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3785295.1         | 9-Aug-03    | 60348609.6 | 2-Mar-16   |
| DE      | 49663-DE-ETD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10185486.7        | 9-Aug-03    | 60344393.1 | 26-Jun-13  |
| EP      | 49663-EP-EPT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3785295.1         | 9-Aug-03    | 1535159    | 2-Mar-16   |
| EP      | 49663-EP-ETD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10185486.7        | 9-Aug-03    | 2375336    | 26-Jun-13  |
| EP      | 49663-EP-ETD[2]           | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 15171944          | 12-Jun-15   | EMPTY      | EMPTY      |
| FR      | 49663-FR-EPT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3785295.1         | 9-Aug-03    | 1535159    | 2-Mar-16   |

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| Country | BlackBerry Case Reference | Title                                                                          | Serial No.      | Filing Date | Grant No. | Grant Date |
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| FR      | 49663-FR-ETD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10185486.7      | 9-Aug-03    | 2375336   | 26-Jun-13  |
| GB      | 49663-GB-EPT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3785295.1       | 9-Aug-03    | 1535159   | 2-Mar-16   |
| GB      | 49663-GB-ETD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10185486.7      | 9-Aug-03    | 2375336   | 26-Jun-13  |
| IL      | 49663-IL-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 166762          | 9-Aug-03    | EMPTY     | EMPTY      |
| IN      | 49663-IN-PCD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 8584/DELNP/2007 | 6-Nov-07    | EMPTY     | EMPTY      |
| IN      | 49663-IN-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 875/DELNP/2005  | 9-Aug-03    | 247209    | 30-Mar-11  |
| JP      | 49663-JP-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 2004-528143     | 9-Aug-03    | 4612416   | 22-Oct-10  |
| NL      | 49663-NL-EPT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 3785295.1       | 9-Aug-03    | 1535159   | 2-Mar-16   |
| NL      | 49663-NL-ETD              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10185486.7      | 9-Aug-03    | 2375336   | 26-Jun-13  |
| US      | 49663-US-CNT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 12/885061       | 17-Sep-10   | 8696765   | 15-Apr-14  |
| US      | 49663-US-CNT[2]           | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 14/192802       | 27-Feb-14   | 9083707   | 14-Jul-15  |
| US      | 49663-US-CNT[3]           | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 14/791078       | 2-Jul-15    | EMPTY     | EMPTY      |
| US      | 49663-US-PAT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE | 10/637267       | 9-Aug-03    | 8012219   | 6-Sep-11   |

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| Country | BlackBerry Case Reference | Title                                                                                                                                      | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| US      | 49663-US-PRV              | SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR CLEANING UP A REMOTE DEVICE THAT IS NO LONGER AUTHORIZED TO ACCESS A GLOBAL SERVER SYSTEM | 60/402287         | 9-Aug-02    | EMPTY      | EMPTY      |
| WO      | 49663-WO-PCT              | SYSTEM AND METHOD FOR PREVENTING ACCESS TO DATA ON A COMPROMISED REMOTE DEVICE                                                             | PCT/US2003/025795 | 9-Aug-03    | EMPTY      | EMPTY      |
| CN      | 49664-CN-PCT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 2.0068E+11        | 1-Jun-06    | 101449607  | 19-Jun-13  |
| DE      | 49664-DE-EPT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 6760627.7         | 1-Jun-06    | 1891767    | 24-Aug-16  |
| EP      | 49664-EP-EPT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 6760627.7         | 1-Jun-06    | 1891767    | 24-Aug-16  |
| EP      | 49664-EP-ETD              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 16157162.5        | 24-Feb-16   | EMPTY      | EMPTY      |
| FR      | 49664-FR-EPT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 6760627.7         | 1-Jun-06    | 1891767    | 24-Aug-16  |
| GB      | 49664-GB-EPT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 6760627.7         | 1-Jun-06    | 1891767    | 24-Aug-16  |
| JP      | 49664-JP-PCT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 2008-514862       | 1-Jun-06    | EMPTY      | EMPTY      |
| NL      | 49664-NL-EPT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 6760627.7         | 1-Jun-06    | 1891767    | 24-Aug-16  |
| US      | 49664-US-CNT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 13/113478         | 23-May-11   | 8351908    | 8-Jan-13   |
| US      | 49664-US-CNT[2]           | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 13/728625         | 27-Dec-12   | 8849257    | 30-Sep-14  |
| US      | 49664-US-CNT[3]           | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 14/472229         | 28-Aug-14   | 9432871    | 30-Aug-16  |
| US      | 49664-US-PAT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | 11/145391         | 3-Jun-05    | 7970386    | 28-Jun-11  |
| WO      | 49664-WO-PCT              | SYSTEM AND METHOD FOR MONITORING AND MAINTAINING A WIRELESS DEVICE                                                                         | PCT/US2006/021297 | 1-Jun-06    | EMPTY      | EMPTY      |
| US      | 49665-US-PAT              | METHOD AND SYSTEM FOR DISTRIBUTING AND UPDATING SOFTWARE IN WIRELESS DEVICES                                                               | 11/363583         | 27-Feb-06   | 7702322    | 20-Apr-10  |
| CN      | 49666-CN-PCT              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS,                                                                            | 99803070.8        | 15-Jan-99   | 99803070.8 | 30-Apr-03  |

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| Country | BlackBerry Case Reference | Title                                                                                                   | Serial No.  | Filing Date | Grant No.  | Grant Date |
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|         |                           | MANIPULATE AND SYNCHRONIZE NETWORK DATA                                                                 |             |             |            |            |
| DE      | 49666-DE-ETD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 9150400.1   | 15-Jan-99   | 69944105.6 | 14-Mar-12  |
| EA      | 49666-EA-EAT              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 20000000771 | 15-Jan-99   | 2411       | 25-Apr-02  |
| EP      | 49666-EP-EPT              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 99903138.8  | 15-Jan-99   | EMPTY      | EMPTY      |
| EP      | 49666-EP-ETD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 9150400.1   | 15-Jan-99   | 2048586    | 14-Mar-12  |
| EP      | 49666-EP-ETD[2]           | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 10184699.6  | 15-Jan-99   | EMPTY      | EMPTY      |
| ES      | 49666-ES-ETD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 9150400.1   | 15-Jan-99   | 2048586    | 14-Mar-12  |
| FR      | 49666-FR-ETD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 9150400.1   | 15-Jan-99   | 2048586    | 14-Mar-12  |
| GB      | 49666-GB-ETD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 9150400.1   | 15-Jan-99   | 2048586    | 14-Mar-12  |
| HK      | 49666-HK-FPR              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 1107151.9   | 11-Oct-01   | EMPTY      | EMPTY      |
| JP      | 49666-JP-PCD              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA MANAGER TO ACCESS, MANIPULATE AND SYNCHRONIZE NETWORK DATA | 2009-184961 | 7-Aug-09    | EMPTY      | EMPTY      |
| JP      | 49666-JP-PCT              | SYSTEM AND METHOD FOR USING A WORKSPACE DATA                                                            | 2000-540509 | 15-Jan-99   | EMPTY      | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                                               | Serial No.        | Filing Date | Grant No.  | Grant Date |
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|         |                           | MANAGER TO ACCESS,<br>MANIPULATE AND SYNCHRONIZE<br>NETWORK DATA                                                    |                   |             |            |            |
| NL      | 49666-NL-ETD              | SYSTEM AND METHOD FOR<br>USING A WORKSPACE DATA<br>MANAGER TO ACCESS,<br>MANIPULATE AND SYNCHRONIZE<br>NETWORK DATA | 9150400.1         | 15-Jan-99   | 2048586    | 14-Mar-12  |
| US      | 49666-US-PAT              | SYSTEM AND METHOD FOR<br>USING A WORKSPACE DATA<br>MANAGER TO ACCESS,<br>MANIPULATE AND SYNCHRONIZE<br>NETWORK DATA | 09/008354         | 16-Jan-98   | 6151606    | 21-Nov-00  |
| US      | 49666-US-REX              | SYSTEM AND METHOD FOR<br>USING A WORKSPACE DATA<br>MANAGER TO ACCESS,<br>MANIPULATE AND SYNCHRONIZE<br>NETWORK DATA | 90/008292         | 11-Oct-06   | EMPTY      | EMPTY      |
| WO      | 49666-WO-PCT              | SYSTEM AND METHOD FOR<br>USING A WORKSPACE DATA<br>MANAGER TO ACCESS,<br>MANIPULATE AND SYNCHRONIZE<br>NETWORK DATA | PCT/US1999/000973 | 15-Jan-99   | EMPTY      | EMPTY      |
| DE      | 49667-DE-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 6.02E+11   | 14-Jul-10  |
| DE      | 49667-DE-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 6.02E+11   | 19-Dec-12  |
| EP      | 49667-EP-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 1634162    | 14-Jul-10  |
| EP      | 49667-EP-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 2325743    | 19-Dec-12  |
| ES      | 49667-ES-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 1634162    | 14-Jul-10  |
| ES      | 49667-ES-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 2325743    | 19-Dec-12  |
| FR      | 49667-FR-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 1634162    | 14-Jul-10  |
| FR      | 49667-FR-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 2325743    | 19-Dec-12  |
| GB      | 49667-GB-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 1634162    | 14-Jul-10  |
| GB      | 49667-GB-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 2325743    | 19-Dec-12  |
| IT      | 49667-IT-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 5.0201E+14 | 14-Jul-10  |
| IT      | 49667-IT-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 5.0201E+14 | 19-Dec-12  |
| NL      | 49667-NL-EPT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 4707416.6         | 2-Feb-04    | 1634162    | 14-Jul-10  |
| NL      | 49667-NL-ETD              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 10169425.5        | 2-Feb-04    | 2325743    | 19-Dec-12  |
| US      | 49667-US-CNT              | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 12/017536         | 22-Jan-08   | EMPTY      | EMPTY      |
| US      | 49667-US-CNT[2]           | ASYNCHRONOUS REAL-TIME<br>RETRIEVAL OF DATA                                                                         | 12/708277         | 18-Feb-10   | 8041776    | 18-Oct-11  |

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| US      | 49667-US-CNT[3]           | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | 13/225786         | 6-Sep-11    | 8478829   | 2-Jul-13   |
| US      | 49667-US-CNT[4]           | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | 13/923885         | 21-Jun-13   | 9059956   | 16-Jun-15  |
| US      | 49667-US-PAT              | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | 10/770841         | 2-Feb-04    | 7363349   | 22-Apr-08  |
| US      | 49667-US-PRV              | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | 60/444213         | 31-Jan-03   | EMPTY     | EMPTY      |
| US      | 49667-US-REX              | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | 95/001138         | 21-Jan-09   | EMPTY     | EMPTY      |
| WO      | 49667-WO-PCT              | ASYNCHRONOUS REAL-TIME RETRIEVAL OF DATA                           | PCT/US2004/002902 | 2-Feb-04    | EMPTY     | EMPTY      |
| CN      | 49668-CN-PCT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | 2822328.4         | 11-Nov-02   | 1585944   | 18-Oct-06  |
| EP      | 49668-EP-EPT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | 2777372           | 11-Nov-02   | EMPTY     | EMPTY      |
| FI      | 49668-FI-PAT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | 20012185          | 12-Nov-01   | EMPTY     | EMPTY      |
| KR      | 49668-KR-PCT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | 2004-7003479      | 11-Nov-02   | 945221    | 24-Feb-10  |
| US      | 49668-US-PAT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | 10/292086         | 11-Nov-02   | 7376697   | 20-May-08  |
| WO      | 49668-WO-PCT              | ARRANGEMENT OF DATA SYNCHRONIZATION IN A TELECOMMUNICATIONS SYSTEM | PCT/FI2002/000886 | 11-Nov-02   | EMPTY     | EMPTY      |
| AU      | 49669-AU-PCT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 2002357731        | 15-Nov-02   | EMPTY     | EMPTY      |
| CA      | 49669-CA-PCT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 2467404           | 15-Nov-02   | EMPTY     | EMPTY      |
| EP      | 49669-EP-EPT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 2792269.9         | 15-Nov-02   | EMPTY     | EMPTY      |
| IL      | 49669-IL-PCT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 162008            | 15-Nov-02   | EMPTY     | EMPTY      |
| JP      | 49669-JP-PCT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 2003-546265       | 15-Nov-02   | EMPTY     | EMPTY      |
| US      | 49669-US-CNT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 12/796969         | 9-Jun-10    | 8069144   | 29-Nov-11  |
| US      | 49669-US-DIV              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 12/645799         | 23-Dec-09   | 8255359   | 28-Aug-12  |
| US      | 49669-US-PAT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                | 10/295702         | 15-Nov-02   | 7752166   | 6-Jul-10   |

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| Country | BlackBerry Case Reference | Title                                                                                  | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| US      | 49669-US-PRV              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                                    | 60/336326         | 15-Nov-01   | EMPTY      | EMPTY      |
| WO      | 49669-WO-PCT              | SYSTEM AND METHODS FOR ASYNCHRONOUS SYNCHRONIZATION                                    | PCT/US2002/036777 | 15-Nov-02   | EMPTY      | EMPTY      |
| DE      | 49670-DE-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 60229885.7 | 12-Nov-08  |
| EP      | 49670-EP-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 1495420    | 12-Nov-08  |
| FI      | 49670-FI-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 1495420    | 12-Nov-08  |
| FR      | 49670-FR-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 1495420    | 12-Nov-08  |
| GB      | 49670-GB-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 1495420    | 12-Nov-08  |
| NL      | 49670-NL-EPT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 2724501.8         | 17-Apr-02   | 1495420    | 12-Nov-08  |
| US      | 49670-US-PAT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | 10/410881         | 9-Apr-03    | 7590629    | 15-Sep-09  |
| WO      | 49670-WO-PCT              | METHOD AND NETWORK DEVICE FOR SYNCHRONIZATION OF DATABASE DATA ROUTED THROUGH A ROUTER | PCT/IB2002/001236 | 17-Apr-02   | EMPTY      | EMPTY      |
| CN      | 49671-CN-PCT              | AUTOMATED DATA MIGRATION                                                               | 580005609.7       | 18-Feb-05   | 2.0058E+11 | 8-Dec-10   |
| DE      | 49671-DE-EPT              | AUTOMATED DATA MIGRATION                                                               | 5708566.4         | 18-Feb-05   | 6.0201E+11 | 21-Jul-10  |
| EP      | 49671-EP-EPT              | AUTOMATED DATA MIGRATION                                                               | 5708566.4         | 18-Feb-05   | 1719328    | 21-Jul-10  |
| GB      | 49671-GB-EPT              | AUTOMATED DATA MIGRATION                                                               | 5708566.4         | 18-Feb-05   | 1719328    | 21-Jul-10  |
| KR      | 49671-KR-PCT              | AUTOMATED DATA MIGRATION                                                               | 2006-7016768      | 18-Feb-05   | 888662     | 6-Mar-09   |
| US      | 49671-US-PAT              | AUTOMATED DATA MIGRATION                                                               | 10/785423         | 23-Feb-04   | EMPTY      | EMPTY      |
| WO      | 49671-WO-PCT              | AUTOMATED DATA MIGRATION                                                               | PCT/IB2005/000439 | 18-Feb-05   | EMPTY      | EMPTY      |
| CN      | 49672-CN-PCT              | SYSTEM AND METHOD FOR PROVIDING SECURED ACCESS TO SERVICES                             | 2.0118E+11        | 17-Jun-11   | EMPTY      | EMPTY      |
| EP      | 49672-EP-EPT              | SYSTEM AND METHOD FOR PROVIDING SECURED ACCESS TO SERVICES                             | 11749230.6        | 17-Jun-11   | EMPTY      | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                         | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| US      | 49672-US-PAT              | SYSTEM AND METHOD FOR PROVIDING SECURED ACCESS TO SERVICES                    | 12/791749         | 1-Jun-10    | 9350708    | 24-May-16  |
| WO      | 49672-WO-PCT              | SYSTEM AND METHOD FOR PROVIDING SECURED ACCESS TO SERVICES                    | PCT/IB2011/052655 | 17-Jun-11   | EMPTY      | EMPTY      |
| CN      | 49673-CN-PCT              | APPLICATION INSTALLATION SYSTEM                                               | 2.0128E+11        | 19-Oct-12   | EMPTY      | EMPTY      |
| EP      | 49673-EP-EPT              | APPLICATION INSTALLATION SYSTEM                                               | 12841035.4        | 19-Oct-12   | EMPTY      | EMPTY      |
| US      | 49673-US-CNT              | APPLICATION INSTALLATION SYSTEM                                               | 14/724606         | 28-May-15   | EMPTY      | EMPTY      |
| US      | 49673-US-PAT              | APPLICATION INSTALLATION SYSTEM                                               | 13/277051         | 19-Oct-11   | 9110750    | 18-Aug-15  |
| WO      | 49673-WO-PCT              | APPLICATION INSTALLATION SYSTEM                                               | PCT/US2012/061040 | 19-Oct-12   | EMPTY      | EMPTY      |
| CN      | 49674-CN-PCT              | METHODS AND APPARATUS FOR ANONYMISING USER DATA BY AGGREGATION                | 2.0128E+11        | 15-Nov-12   | EMPTY      | EMPTY      |
| EP      | 49674-EP-EPT              | METHODS AND APPARATUS FOR ANONYMISING USER DATA BY AGGREGATION                | 12799091.9        | 15-Nov-12   | EMPTY      | EMPTY      |
| US      | 49674-US-PAT              | METHODS AND APPARATUS FOR ANONYMISING USER DATA BY AGGREGATION                | 13/299304         | 17-Nov-11   | EMPTY      | EMPTY      |
| WO      | 49674-WO-PCT              | METHODS AND APPARATUS FOR ANONYMISING USER DATA BY AGGREGATION                | PCT/EP2012/072763 | 15-Nov-12   | EMPTY      | EMPTY      |
| CN      | 49675-CN-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 2.0138E+11        | 27-Feb-13   | EMPTY      | EMPTY      |
| EP      | 49675-EP-EPT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 13755025.7        | 27-Feb-13   | EMPTY      | EMPTY      |
| US      | 49675-US-CNT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 15/167488         | 27-May-16   | EMPTY      | EMPTY      |
| US      | 49675-US-PAT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 13/780245         | 28-Feb-13   | 9356994    | 31-May-16  |
| US      | 49675-US-PRV              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 61/604898         | 29-Feb-12   | EMPTY      | EMPTY      |
| WO      | 49675-WO-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | PCT/US2013/027972 | 27-Feb-13   | EMPTY      | EMPTY      |
| CN      | 49676-CN-PCT              | CONSTANT ACCESS GATEWAY AND DE-DUPLICATED DATA CACHE SERVER                   | 2.0118E+11        | 24-Aug-11   | 2.0118E+11 | 20-Jan-16  |

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| Country | BlackBerry Case Reference | Title                                                                                                                           | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| EP      | 49676-EP-EPT              | CONSTANT ACCESS GATEWAY AND DE-DUPLICATED DATA CACHE SERVER                                                                     | 11820595.4        | 24-Aug-11   | EMPTY     | EMPTY      |
| US      | 49676-US-PAT              | CONSTANT ACCESS GATEWAY AND DE-DUPLICATED DATA CACHE SERVER                                                                     | 13/216962         | 24-Aug-11   | EMPTY     | EMPTY      |
| US      | 49676-US-PRV              | CONSTANT ACCESS GATEWAY AND DE-DUPLICATED DATA CACHE SERVER                                                                     | 61/376433         | 24-Aug-10   | EMPTY     | EMPTY      |
| WO      | 49676-WO-PCT              | CONSTANT ACCESS GATEWAY AND DE-DUPLICATED DATA CACHE SERVER                                                                     | PCT/US2011/048970 | 24-Aug-11   | EMPTY     | EMPTY      |
| EP      | 49677-EP-EPT              | MANAGING CONTAINERIZED APPLICATIONS                                                                                             | 14819177.8        | 26-Nov-14   | EMPTY     | EMPTY      |
| US      | 49677-US-PAT              | MANAGING CONTAINERIZED APPLICATIONS ON A MOBILE DEVICE WHILE BYPASSING OPERATING SYSTEM IMPLEMENTED INTER PROCESS COMMUNICATION | 14/093005         | 28-Nov-13   | 9361163   | 7-Jun-16   |
| US      | 49677-US-PCT              | MANAGING CONTAINERIZED APPLICATIONS                                                                                             | 15/039976         | 26-Nov-14   | EMPTY     | EMPTY      |
| WO      | 49677-WO-PCT              | MANAGING CONTAINERIZED APPLICATIONS                                                                                             | PCT/US2014/067694 | 26-Nov-14   | EMPTY     | EMPTY      |
| CN      | 49678-CN-PCT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | 2.0088E+11        | 24-Apr-08   | EMPTY     | EMPTY      |
| EP      | 49678-EP-EPT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | 8799914           | 24-Apr-08   | EMPTY     | EMPTY      |
| IN      | 49678-IN-PCT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | 1958/MUMNP/2009   | 24-Apr-08   | EMPTY     | EMPTY      |
| KR      | 49678-KR-PCT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | 10-2009-7022256   | 24-Apr-08   | EMPTY     | EMPTY      |
| US      | 49678-US-PAT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | 11/789695         | 24-Apr-07   | EMPTY     | EMPTY      |
| WO      | 49678-WO-PCT              | MOBILE SOCIAL NETWORKING SYSTEM AND METHOD                                                                                      | PCT/US2008/061402 | 24-Apr-08   | EMPTY     | EMPTY      |
| CA      | 49679-CA-PAT              | MULTI-PROFILE MOBILE DEVICE INTERFACE FOR SAME USER                                                                             | 2847507           | 24-Mar-14   | EMPTY     | EMPTY      |
| US      | 49679-US-CNT              | MULTI-PROFILE MOBILE DEVICE INTERFACE FOR SAME USER                                                                             | 14/977531         | 21-Dec-15   | EMPTY     | EMPTY      |
| US      | 49679-US-PAT              | MULTI-PROFILE MOBILE DEVICE INTERFACE FOR SAME USER                                                                             | 13/896543         | 17-May-13   | EMPTY     | EMPTY      |
| CN      | 49680-CN-PCT              | METHOD AND APPARATUS FOR THE PROCESSING OF DATA RELATING TO CALENDAR ENTRIES                                                    | 2.0128E+11        | 10-Feb-12   | EMPTY     | EMPTY      |
| EP      | 49680-EP-EPT              | METHOD AND APPARATUS FOR THE PROCESSING OF DATA RELATING TO CALENDAR ENTRIES                                                    | 12708786.4        | 10-Feb-12   | EMPTY     | EMPTY      |
| US      | 49680-US-PAT              | METHOD AND APPARATUS FOR THE PROCESSING OF DATA RELATING TO CALENDAR ENTRIES                                                    | 13/034493         | 24-Feb-11   | EMPTY     | EMPTY      |
| WO      | 49680-WO-PCT              | METHOD AND APPARATUS FOR THE PROCESSING OF DATA RELATING TO CALENDAR ENTRIES                                                    | PCT/EP2012/052353 | 10-Feb-12   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                                                              | Serial No. | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-----------|------------|
| US      | 49681-US-CIP              | FRACTIONAL APPLICATIONS PRODUCT CATALOG                                                                                            | 13/690834  | 30-Nov-12   | 8825002   | 2-Sep-14   |
| US      | 49681-US-CNT              | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 14/037602  | 26-Sep-13   | EMPTY     | EMPTY      |
| US      | 49681-US-CNT[2]           | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 14/037987  | 26-Sep-13   | EMPTY     | EMPTY      |
| US      | 49681-US-CNT[3]           | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 14/038180  | 26-Sep-13   | EMPTY     | EMPTY      |
| US      | 49681-US-CNT[4]           | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 14/038389  | 26-Sep-13   | EMPTY     | EMPTY      |
| US      | 49681-US-CNT[5]           | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 14/952835  | 25-Nov-15   | EMPTY     | EMPTY      |
| US      | 49681-US-PAT              | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 13/369055  | 8-Feb-12    | 8594618   | 26-Nov-13  |
| US      | 49681-US-PRV              | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 61/440471  | 8-Feb-11    | EMPTY     | EMPTY      |
| US      | 49681-US-PRV[2]           | SYSTEM AND METHOD FOR TASK SPECIFIC, METERED BANDWIDTH CONTROL WITHIN SHARED CLIENT ENVIRONMENT ON MOBILE COMMUNICATIONS PLATFORMS | 61/563234  | 23-Nov-11   | EMPTY     | EMPTY      |
| CN      | 49682-CN-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                                                      | 2.0138E+11 | 27-Feb-13   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                         | Serial No.        | Filing Date | Grant No. | Grant Date |
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| EP      | 49682-EP-EPT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 13754649.5        | 27-Feb-13   | EMPTY     | EMPTY      |
| US      | 49682-US-PAT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 13/780191         | 28-Feb-13   | 9385996   | 5-Jul-16   |
| US      | 49682-US-PRV              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | 61/604894         | 29-Feb-12   | EMPTY     | EMPTY      |
| WO      | 49682-WO-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM | PCT/US2013/027954 | 27-Feb-13   | EMPTY     | EMPTY      |
| US      | 49683-US-CNT              | INFORMATION REPOSITORY SYSTEM INCLUDING A WIRELESS DEVICE AND RELATED METHOD  | 14/951350         | 24-Nov-15   | EMPTY     | EMPTY      |
| US      | 49683-US-PAT              | INFORMATION REPOSITORY SYSTEM INCLUDING A WIRELESS DEVICE AND RELATED METHOD  | 10/171048         | 12-Jun-02   | EMPTY     | EMPTY      |
| EP      | 49684-EP-EPT              | SECURE COMMUNICATION CHANNELS                                                 | 14868833.6        | 11-Dec-14   | EMPTY     | EMPTY      |
| GB      | 49684-GB-DIV[2]           | SECURE COMMUNICATION CHANNELS                                                 | 1603058.7         | 23-Feb-16   | EMPTY     | EMPTY      |
| GB      | 49684-GB-PAT              | SECURE COMMUNICATION CHANNELS                                                 | 1322032.2         | 12-Dec-13   | 2521195   | 29-Jun-16  |
| GB      | 49684-GB-PAT[2]           | SECURE COMMUNICATION CHANNELS                                                 | 1322033           | 12-Dec-13   | 2521196   | 15-Jun-16  |
| US      | 49684-US-PCT              | SECURE COMMUNICATION CHANNELS                                                 | 15/103998         | 11-Dec-14   | EMPTY     | EMPTY      |
| WO      | 49684-WO-PCT              | SECURE COMMUNICATION CHANNELS                                                 | PCT/US2014/069823 | 11-Dec-14   | EMPTY     | EMPTY      |
| CN      | 49685-CN-PCT              | METHOD AND DEVICE FOR EDITING WORKSPACE DATA OBJECTS                          | 2.0118E+11        | 7-Jan-11    | EMPTY     | EMPTY      |
| EP      | 49685-EP-EPT              | METHOD AND DEVICE FOR EDITING WORKSPACE DATA OBJECTS                          | 11735826.7        | 1-Jul-11    | EMPTY     | EMPTY      |
| US      | 49685-US-PAT              | METHOD AND DEVICE FOR EDITING WORKSPACE DATA OBJECTS                          | 12/829157         | 1-Jul-10    | EMPTY     | EMPTY      |
| WO      | 49685-WO-PCT              | METHOD AND DEVICE FOR EDITING WORKSPACE DATA OBJECTS                          | PCT/EP2011/061161 | 1-Jul-11    | EMPTY     | EMPTY      |
| US      | 49686-US-PAT              | SECURE STORAGE                                                                | 14/965748         | 10-Dec-15   | EMPTY     | EMPTY      |
| US      | 49686-US-PRV              | GOOD DYNAMICS - SUB CONTAINERS                                                | 62/101772         | 9-Jan-15    | EMPTY     | EMPTY      |
| WO      | 49686-WO-PCT              | SECURE STORAGE                                                                | PCT/US2015/65083  | 10-Dec-15   | EMPTY     | EMPTY      |
| US      | 49687-US-PRV              | SECURE STORAGE                                                                | 62/091909         | 15-Dec-14   | EMPTY     | EMPTY      |
| CN      | 49688-CN-PCT              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                           | 201180024508.X    | 16-Mar-11   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                       | Serial No.        | Filing Date | Grant No. | Grant Date |
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| EP      | 49688-EP-EPT              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                         | 11756927.7        | 16-Mar-11   | EMPTY     | EMPTY      |
| US      | 49688-US-CNT              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                         | 13/865552         | 18-Apr-13   | 9110915   | 18-Aug-15  |
| US      | 49688-US-PAT              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                         | 13/049095         | 16-Mar-11   | 8452739   | 28-May-13  |
| US      | 49688-US-PRV              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                         | 61/314293         | 16-Mar-10   | EMPTY     | EMPTY      |
| WO      | 49688-WO-PCT              | HIGHLY SCALABLE AND DISTRIBUTED DATA DE-DUPLICATION                         | PCT/US2011/028656 | 16-Mar-11   | EMPTY     | EMPTY      |
| CN      | 49689-CN-PCT              | SYSTEM AND METHOD FOR PROVIDING ACCESS CREDENTIALS                          | 2.0128E+11        | 2-May-12    | EMPTY     | EMPTY      |
| EP      | 49689-EP-EPT              | SYSTEM AND METHOD FOR PROVIDING ACCESS CREDENTIALS                          | 12720376.8        | 2-May-12    | EMPTY     | EMPTY      |
| US      | 49689-US-PAT              | SYSTEM AND METHOD FOR PROVIDING ACCESS CREDENTIALS                          | 13/101962         | 5-May-11    | 9130935   | 8-Sep-15   |
| WO      | 49689-WO-PCT              | SYSTEM AND METHOD FOR PROVIDING ACCESS CREDENTIALS                          | PCT/US2012/036175 | 2-May-12    | EMPTY     | EMPTY      |
| CN      | 49690-CN-PCT              | APPLICATION REGISTRATION AND INTERACTION                                    | 2.0148E+11        | 13-Mar-14   | EMPTY     | EMPTY      |
| EP      | 49690-EP-EPT              | APPLICATION REGISTRATION AND INTERACTION                                    | 14785180.2        | 13-Mar-14   | EMPTY     | EMPTY      |
| HK      | 49690-HK-FPR              | APPLICATION REGISTRATION AND INTERACTION                                    | 16104511.4        | 20-Apr-16   | EMPTY     | EMPTY      |
| US      | 49690-US-CNT              | APPLICATION REGISTRATION AND INTERACTION                                    | 14/852171         | 11-Sep-15   | EMPTY     | EMPTY      |
| US      | 49690-US-PRV              | APPLICATION REGISTRATION AND INTERACTION                                    | 61/782511         | 14-Mar-13   | EMPTY     | EMPTY      |
| WO      | 49690-WO-PCT              | APPLICATION REGISTRATION AND INTERACTION                                    | PCT/US2014/026728 | 13-Mar-14   | EMPTY     | EMPTY      |
| US      | 49691-US-PRV              | CONTROLLING ACCESS TO A RESOURCE VIA A COMPUTING DEVICE                     | 62/005725         | 30-May-14   | EMPTY     | EMPTY      |
| WO      | 49691-WO-PCT              | CONTROLLING ACCESS TO A RESOURCE VIA A COMPUTING DEVICE                     | PCT/US2015/033334 | 29-May-15   | EMPTY     | EMPTY      |
| CN      | 49692-CN-PCT              | SYSTEMS AND METHODS FOR FACILITATING SERVICE PROVISION BETWEEN APPLICATIONS | 2.0138E+11        | 16-Jul-13   | EMPTY     | EMPTY      |
| EP      | 49692-EP-EPT              | SYSTEMS AND METHODS FOR FACILITATING SERVICE PROVISION BETWEEN APPLICATIONS | 13820097.7        | 16-Jul-13   | EMPTY     | EMPTY      |
| US      | 49692-US-CIP              | SYSTEMS AND METHODS FOR FACILITATING SERVICE PROVISION BETWEEN APPLICATIONS | 14/599310         | 16-Jan-15   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                       | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| US      | 49692-US-PRV              | SYSTEMS AND METHODS FOR FACILITATING SERVICE PROVISION BETWEEN APPLICATIONS | 61/672457         | 17-Jul-12   | EMPTY      | EMPTY      |
| WO      | 49692-WO-PCT              | SYSTEMS AND METHODS FOR FACILITATING SERVICE PROVISION BETWEEN APPLICATIONS | PCT/US2013/050632 | 16-Jul-13   | EMPTY      | EMPTY      |
| CN      | 49693-CN-PCT              | DISTRIBUTED CATALOG, DATA STORE, AND INDEXING                               | 2.0118E+11        | 14-Mar-11   | 2.0118E+11 | 6-Jul-16   |
| EP      | 49693-EP-EPT              | DISTRIBUTED CATALOG, DATA STORE, AND INDEXING                               | 11754244.9        | 14-Mar-11   | EMPTY      | EMPTY      |
| US      | 49693-US-PAT              | DISTRIBUTED CATALOG, DATA STORE, AND INDEXING                               | 13/047273         | 14-Mar-11   | 9135264    | 15-Sep-15  |
| US      | 49693-US-PRV              | DISTRIBUTED CATALOG, DATA STORE, AND INDEXING                               | 61/313316         | 12-Mar-10   | EMPTY      | EMPTY      |
| WO      | 49693-WO-PCT              | DISTRIBUTED CATALOG, DATA STORE, AND INDEXING                               | PCT/US2011/028318 | 14-Mar-11   | EMPTY      | EMPTY      |
| EP      | 49694-EP-EPT              | METHOD AND DEVICE FOR GENERATING A CODE                                     | 13720811.2        | 10-Apr-13   | EMPTY      | EMPTY      |
| US      | 49694-US-PAT              | METHOD AND DEVICE FOR GENERATING A CODE                                     | 13/838446         | 15-Mar-13   | EMPTY      | EMPTY      |
| US      | 49694-US-PRV              | METHOD AND DEVICE FOR GENERATING A CODE                                     | 61/622168         | 10-Apr-12   | EMPTY      | EMPTY      |
| WO      | 49694-WO-PCT              | METHOD AND DEVICE FOR GENERATING A CODE                                     | PCT/EP2013/057502 | 10-Apr-13   | EMPTY      | EMPTY      |
| CA      | 49695-CA-PCT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 2647737           | 2-Apr-07    | EMPTY      | EMPTY      |
| CN      | 49695-CN-PCD              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 2.0111E+11        | 2-Apr-07    | 102194008  | 6-May-15   |
| CN      | 49695-CN-PCT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 2.0078E+11        | 2-Apr-07    | EMPTY      | EMPTY      |
| EP      | 49695-EP-EPT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 2007759947        | 2-Apr-07    | EMPTY      | EMPTY      |
| EP      | 49695-EP-ETD              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 12160229.6        | 2-Apr-07    | EMPTY      | EMPTY      |
| JP      | 49695-JP-PCT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 2009-503332       | 2-Apr-07    | EMPTY      | EMPTY      |
| US      | 49695-US-PCT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE    | 12/294708         | 2-Apr-07    | EMPTY      | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                                          | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|----------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| US      | 49695-US-PRV              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE                                       | 60/788006         | 31-Mar-06   | EMPTY     | EMPTY      |
| WO      | 49695-WO-PCT              | SYSTEM AND METHOD FOR SEARCHING DISPARATE DATASTORES VIA A REMOTE DEVICE                                       | PCT/US2007/065772 | 2-Apr-07    | EMPTY     | EMPTY      |
| EP      | 49696-EP-EPT              | SYSTEM AND METHODS TO STORE, RETRIEVE, MANAGE, AUGMENT AND MONITOR APPLICATIONS ON APPLIANCES                  | 10819226.1        | 7-Sep-10    | EMPTY     | EMPTY      |
| US      | 49696-US-CIP              | SYSTEM AND METHOD FOR REMOTE MANAGEMENT OF APPLICATIONS DOWNLOADED TO A PERSONAL PORTABLE WIRELESS APPLIANCE   | 12/975145         | 21-Dec-10   | 8984657   | 17-Mar-15  |
| US      | 49696-US-CIP1             | System and Methods to Store, Retrieve, Manage, Augment and Monitor Applications on Appliances                  | 14/872647         | 1-Oct-15    | EMPTY     | EMPTY      |
| US      | 49696-US-CNT              | SYSTEM AND METHODS TO STORE, RETRIEVE, MANAGE, AUGMENT AND MONITOR APPLICATIONS ON APPLIANCES                  | 14/872647         | 1-Oct-15    | EMPTY     | EMPTY      |
| US      | 49696-US-PAT              | SYSTEM AND METHODS TO STORE, RETRIEVE, MANAGE, AUGMENT AND MONITOR APPLICATIONS ON APPLIANCES                  | 12/876214         | 6-Sep-10    | 9185554   | 10-Nov-15  |
| US      | 49696-US-PRV              | METHOD AND SYSTEM TO STORE, RETRIEVE, MANAGE, FUNCTIONALLY AGUMENT AND MONITOR APPLICATIONS FOR MOBILE DEVICES | 61/276129         | 8-Sep-09    | EMPTY     | EMPTY      |
| WO      | 49696-WO-PCT              | SYSTEM AND METHODS TO STORE, RETRIEVE, MANAGE, AUGMENT AND MONITOR APPLICATIONS ON APPLIANCES                  | PCT/US2010/047956 | 7-Sep-10    | EMPTY     | EMPTY      |
| EP      | 49697-EP-EPT              | METHODS AND SYSTEM TO CREATE APPLICATIONS AND DISTRIBUTE APPLICATIONS TO A REMOTE DEVICE                       | 8729983           | 15-Feb-08   | EMPTY     | EMPTY      |
| US      | 49697-US-CNT              | METHODS AND SYSTEM TO CREATE APPLICATIONS AND DISTRIBUTE APPLICATIONS TO A REMOTE DEVICE                       | 15/249656         | 29-Aug-16   | EMPTY     | EMPTY      |
| US      | 49697-US-PAT              | METHODS AND SYSTEM TO CREATE APPLICATIONS AND DISTRIBUTE APPLICATIONS TO A REMOTE DEVICE                       | 12/032093         | 15-Feb-08   | 9451009   | 20-Sep-16  |
| US      | 49697-US-PRV              | METHODS AND SYSTEM TO CREATE APPLICATIONS AND DISTRIBUTE APPLICATIONS TO A REMOTE DEVICE                       | 60/890502         | 19-Feb-07   | EMPTY     | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                          | Serial No.        | Filing Date | Grant No.  | Grant Date |
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| WO      | 49697-WO-PCT              | METHODS AND SYSTEM TO CREATE APPLICATIONS AND DISTRIBUTE APPLICATIONS TO A REMOTE DEVICE       | PCT/US2008/054097 | 15-Feb-08   | EMPTY      | EMPTY      |
| CN      | 49698-CN-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                  | 2.0138E+11        | 27-Feb-13   | EMPTY      | EMPTY      |
| EP      | 49698-EP-EPT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                  | 13755600.7        | 27-Feb-13   | EMPTY      | EMPTY      |
| US      | 49698-US-PAT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                  | 13/780283         | 28-Feb-13   | 9319219    | 19-Apr-16  |
| US      | 49698-US-PRV              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                  | 61/604919         | 29-Feb-12   | EMPTY      | EMPTY      |
| WO      | 49698-WO-PCT              | METHOD OF OPERATING A COMPUTING DEVICE, COMPUTING DEVICE AND COMPUTER PROGRAM                  | PCT/US2013/027962 | 27-Feb-13   | EMPTY      | EMPTY      |
| US      | 49699-US-PRV              | ACCESS TO SOFTWARE APPLICATIONS                                                                | 62/055857         | 26-Sep-14   | EMPTY      | EMPTY      |
| WO      | 49699-WO-PCT              | ACCESS TO SOFTWARE APPLICATIONS                                                                | PCT/US2015/051773 | 23-Sep-15   | EMPTY      | EMPTY      |
| CN      | 49700-CN-PCT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 2.0048E+11        | 19-Apr-04   | 2.0048E+11 | 18-Aug-10  |
| DE      | 49700-DE-EPT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 4728203.3         | 19-Apr-04   | 6.02E+11   | 22-Sep-10  |
| EP      | 49700-EP-EPT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 4728203.3         | 19-Apr-04   | 1618727    | 22-Sep-10  |
| FR      | 49700-FR-EPT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 4728203.3         | 19-Apr-04   | 1618727    | 22-Sep-10  |
| GB      | 49700-GB-EPT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 4728203.3         | 19-Apr-04   | 1618727    | 22-Sep-10  |
| GB      | 49700-GB-PAT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | 308991.9          | 17-Apr-03   | EMPTY      | EMPTY      |
| GB      | 49700-GB-PCT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM                                               | 408676.5          | 19-Apr-04   | EMPTY      | EMPTY      |

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| Country | BlackBerry Case Reference | Title                                                                                            | Serial No.        | Filing Date | Grant No. | Grant Date |
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|         |                           | COMPRISING A DISTRIBUTED SOFTWARE APPLICATION                                                    |                   |             |           |            |
| JP      | 49700-JP-PCT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION   | 2006-506148       | 19-Apr-04   | EMPTY     | EMPTY      |
| US      | 49700-US-PCT              | DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION   | 10/553721         | 19-Apr-04   | 7912896   | 22-Mar-11  |
| WO      | 49700-WO-PCT              | A DATA ACCESS, REPLICATION OR COMMUNICATION SYSTEM COMPRISING A DISTRIBUTED SOFTWARE APPLICATION | PCT/GB2004/001685 | 19-Apr-04   | EMPTY     | EMPTY      |
| CA      | 49701-CA-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 2341213           | 21-Aug-98   | 2341213   | 26-May-09  |
| CN      | 49701-CN-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 98814246.5        | 21-Aug-98   | 1227858   | 16-Nov-05  |
| EA      | 49701-EA-EAT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 200100257         | 21-Aug-98   | 3374      | 24-Apr-03  |
| EP      | 49701-EP-EPT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 98943309.9        | 21-Aug-98   | EMPTY     | EMPTY      |
| IL      | 49701-IL-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 141530            | 21-Aug-98   | EMPTY     | EMPTY      |
| JP      | 49701-JP-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 2000-566987       | 21-Aug-98   | EMPTY     | EMPTY      |
| SG      | 49701-SG-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | 2001010362        | 21-Aug-98   | 79169     | 30-Apr-03  |
| WO      | 49701-WO-PCT              | SYSTEM AND METHOD FOR ENABLING SECURE ACCESS TO SERVICES IN A COMPUTER NETWORK                   | PCT/US1998/017410 | 21-Aug-98   | EMPTY     | EMPTY      |
| EP      | 49890-EP-EPT              | COMPUTING DEVICE SECURITY                                                                        | 15765429.4        | 18-Mar-15   | EMPTY     | EMPTY      |
| US      | 49890-US-PRV              | COMPUTING DEVICE SECURITY                                                                        | 61/968907         | 21-Mar-14   | EMPTY     | EMPTY      |
| WO      | 49890-WO-PCT              | COMPUTING DEVICE SECURITY                                                                        | PCT/US2015/021308 | 18-Mar-15   | EMPTY     | EMPTY      |
| CN      | 49891-CN-PCT              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                                        | 2.0148E+11        | 28-Jan-14   | EMPTY     | EMPTY      |

# SCHEDULE A

| Country | BlackBerry Case Reference | Title                                                                             | Serial No.        | Filing Date | Grant No.  | Grant Date |
|---------|---------------------------|-----------------------------------------------------------------------------------|-------------------|-------------|------------|------------|
| EP      | 49891-EP-EPT              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                         | 14746695.7        | 28-Jan-14   | EMPTY      | EMPTY      |
| HK      | 49891-HK-FPR              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                         | 16103756          | 1-Apr-16    | EMPTY      | EMPTY      |
| US      | 49891-US-CNT              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                         | 14/812756         | 29-Jul-15   | EMPTY      | EMPTY      |
| US      | 49891-US-PRV              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                         | 61/758010         | 29-Jan-13   | EMPTY      | EMPTY      |
| WO      | 49891-WO-PCT              | METHODS FOR ACTIVATION OF AN APPLICATION ON A USER DEVICE                         | PCT/US2014/013457 | 28-Jan-14   | EMPTY      | EMPTY      |
| DE      | 49893-DE-EPT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 5773570.6         | 19-Jul-05   | 6.0201E+11 | 16-Sep-09  |
| EP      | 49893-EP-EPT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 5773570.6         | 19-Jul-05   | 1786821    | 16-Sep-09  |
| FR      | 49893-FR-EPT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 5773570.6         | 19-Jul-05   | 1786821    | 16-Sep-09  |
| GB      | 49893-GB-EPT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 5773570.6         | 19-Jul-05   | 1786821    | 16-Sep-09  |
| NL      | 49893-NL-EPT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 5773570.6         | 19-Jul-05   | 1786821    | 16-Sep-09  |
| US      | 49893-US-PAT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 11/186419         | 19-Jul-05   | EMPTY      | EMPTY      |
| US      | 49893-US-PRV              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | 60/589355         | 19-Jul-04   | EMPTY      | EMPTY      |
| WO      | 49893-WO-PCT              | DYNAMIC KNOWLEDGE-BASED NETWORKING SYSTEM AND METHOD                              | PCT/US2005/025972 | 19-Jul-05   | EMPTY      | EMPTY      |
| AU      | 49894-AU-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION | 2009335697        | 18-Dec-09   | EMPTY      | EMPTY      |
| CA      | 49894-CA-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION | 2747661           | 18-Dec-09   | EMPTY      | EMPTY      |
| CN      | 49894-CN-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION | 2.0098E+11        | 18-Dec-09   | 2.0098E+11 | 8-Jul-15   |
| EP      | 49894-EP-EPT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION | 9837974.6         | 18-Dec-09   | EMPTY      | EMPTY      |

# SCHEDULE A

| Country | BlackBerry Case Reference | Title                                                                                                       | Serial No.        | Filing Date | Grant No. | Grant Date |
|---------|---------------------------|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|------------|
| HK      | 49894-HK-FPR              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION                           | 12106045.8        | 20-Jun-12   | EMPTY     | EMPTY      |
| IN      | 49894-IN-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION                           | 2995/KOLNP/2011   | 18-Dec-09   | EMPTY     | EMPTY      |
| JP      | 49894-JP-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION                           | 2011-542475       | 18-Dec-09   | 5468620   | 7-Feb-14   |
| US      | 49894-US-PAT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING                                                   | 12/642033         | 18-Dec-09   | 8589455   | 19-Nov-13  |
| US      | 49894-US-PAT[2]           | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION                           | 12/642023         | 18-Dec-09   | 7925683   | 12-Apr-11  |
| US      | 49894-US-PRV              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING                                                   | 61/138827         | 18-Dec-08   | EMPTY     | EMPTY      |
| WO      | 49894-WO-PCT              | METHODS AND APPARATUS FOR CONTENT-AWARE DATA PARTITIONING AND DATA DE-DUPLICATION                           | PCT/US2009/068687 | 18-Dec-09   | EMPTY     | EMPTY      |
| EP      | 49896-EP-EPT              | METHODS AND SYSTEMS FOR MANAGING MULTIPLE APPLICATIONS                                                      | EMPTY             | EMPTY       | EMPTY     | EMPTY      |
| US      | 49896-US-PAT              | METHOD AND SYSTEM FOR MANAGING AND PRESENTING MULTIPLE APPLICATION CONTAINERS AS A SINGLE LOGICAL CONTAINER | 14/264276         | 29-Apr-14   | EMPTY     | EMPTY      |
| WO      | 49896-WO-PCT              | METHODS AND SYSTEMS FOR MANAGING MULTIPLE APPLICATIONS                                                      | PCT/US2015/028085 | 28-Apr-15   | EMPTY     | EMPTY      |
| EP      | 49897-EP-EPT              | AUTHENTICATION SYSTEM                                                                                       | 14812049.6        | 17-Nov-14   | EMPTY     | EMPTY      |
| US      | 49897-US-PCT              | AUTHENTICATION SYSTEM                                                                                       | 15/036998         | 17-Nov-14   | EMPTY     | EMPTY      |
| US      | 49897-US-PRV              | AUTHENTICATION SYSTEM                                                                                       | 61/905127         | 15-Nov-13   | EMPTY     | EMPTY      |
| WO      | 49897-WO-PCT              | AUTHENTICATION SYSTEM                                                                                       | PCT/US2014/065977 | 17-Nov-14   | EMPTY     | EMPTY      |
| US      | 49898-US-PAT              | MOBILE APPLICATION PERFORMANCE MANAGEMENT                                                                   | 13/105478         | 11-May-11   | 9158650   | 13-Oct-15  |
| US      | 49898-US-PRV              | MOBILE APPLICATION PERFORMANCE MANAGEMENT                                                                   | 61/370482         | 4-Aug-10    | EMPTY     | EMPTY      |

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