

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3699711

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                    |
| <b>CONVEYING PARTY DATA</b>   |                               |
| <b>Name</b>   | <b>Execution Date</b>         |
| ARI BACKHOLM  | 09/05/2014                    |
| <b>RECEIVING PARTY DATA</b>   |                               |
| <b>Name:</b>  | SEVEN NETWORKS, INC.          |
| <b>Street Address:</b>  | 959 SKYWAY ROAD               |
| <b>Internal Address:</b>  | SUITE 100                     |
| <b>City:</b>  | SAN CARLOS                    |
| <b>State/Country:</b>   | CALIFORNIA                    |
| <b>Postal Code:</b>   | 94070                         |
| <b>PROPERTY NUMBERS Total: 1</b>  |                               |
| <b>Property Type</b>  | <b>Number</b>                 |
| <b>Application Number:</b>  | 13815921                      |
| <b>CORRESPONDENCE DATA</b>  |                               |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | 455/161/2 UTIL                |
| <b>NAME OF SUBMITTER:</b>   | JUSTIN R. NIFONG              |
| <b>SIGNATURE:</b>   | /Justin R. Nifong/            |
| <b>DATE SIGNED:</b>   | 01/18/2016                    |
| <b>Total Attachments: 7</b>   |                               |
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**DECLARATION AND ASSIGNMENT OF RIGHTS**

As a below named inventor (hereinafter designated as the undersigned or the Assignor, where appropriate), I hereby declare that:

The application is as identified by the attorney docket number, title, Filing Date, or Application Title as set forth in the following Table I:

The application in Table I was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application(s) listed in Table I.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

**TABLE I**

| Attorney Docket No. | Application No. | Title   | Filing Date |
|---------------------|-----------------|---|-------------|
| 455/006 PCT1        | FI05/50424      | E-MAIL MESSAGING TO/FROM A MOBILE TERMINAL                        | 11/21/2005  |
| 455/006 PCT2        | FI05/50426      | DATA SECURITY IN A MOBILE E-MAIL SERVICE                          | 11/21/2005  |
| 455/006 PROV1       | 60/650,975      | E-MAIL MESSAGING TO/FROM A MOBILE TERMINAL                        | 2/9/2005    |
| 455/006 PROV2       | 60/651,082      | DATA SECURITY IN A MOBILE E-MAIL SERVICE                          | 2/9/2005    |
| 455/006/2 UTIL      | 11/282,607      | DATA SECURITY IN A MOBILE E-MAIL SERVICE                          | 11/21/2005  |
| 455/006/3 UTIL      | 11/282,950      | E-MAIL MESSAGING TO/FROM A MOBILE TERMINAL                        | 11/21/2005  |
| 455/006/4 UTIL      | 12/205,747      | MAINTAINING MOBILE TERMINAL INFORMATION FOR SECURE COMMUNICATIONS | 9/5/2008    |
| 455/006/5 UTIL      | 12/228,325      | Messaging centre for forwarding e-mail                            | 8/11/2008   |
| 455/006/6           | 12/228,424      | CONNECTIVITY FUNCTION FOR FORWARDING E-MAIL                       | 8/11/2008   |
| 455/009 PCT         | FI05/50441      | PROVISIONING OF E-MAIL SETTINGS FOR A MOBILE TERMINAL             | 12/1/2005   |
| 455/009 PROV        | 60/651,081      | PROVISIONING OF E-MAIL SETTINGS FOR A MOBILE TERMINAL             | 2/9/2005    |
| 455/009/1 UTIL      | 11/289,308      | PROVISIONING OF E-MAIL SETTINGS FOR A MOBILE TERMINAL             | 11/30/2005  |
| 455/009/2 UTIL      | 13/349,220      | PROVISIONING OF E-MAIL SETTINGS FOR A                             | 1/12/2012   |

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|-----------------|----------------|---|------------|
|                 |                | MOBILE TERMINAL   |            |
| 455/015 PCT     | FI06/50271     | MAINTAINING AN IP CONNECTION IN A MOBILE NETWORK  | 6/19/2006  |
| 455/015 PROV    | 60/707,170     | MAINTAINING AN IP CONNECTION IN A MOBILE NETWORK  | 8/11/2005  |
| 455/015/1 UTIL  | 11/471,630     | MAINTAINING AN IP CONNECTION IN A MOBILE NETWORK  | 6/21/2006  |
| 455/015/2 UTIL  | 12/853,119     | MAINTAINING AN IP CONNECTION IN A MOBILE NETWORK  | 8/9/2010   |
| 455/015/3 US    | 13/043,425     | DYNAMIC ADJUSTMENT OF KEEP-ALIVE MESSAGE INTERVALS IN A MOBILE NETWORK                    | 3/8/2011   |
| 455/015/4 UTIL  | 13/613,694     | MAINTAINING AN IP CONNECTION IN A MOBILE NETWORK  | 9/13/2012  |
| 455/015/5US     | 14/283,193     | DYNAMIC ADJUSTMENT OF KEEP-ALIVE MESSAGES FOR EFFICIENT BATTERY USAGE IN A MOBILE NETWORK | 5/20/2014  |
| 455/016 PCT     | FI06/50272     | NETWORK-INITIATED DATA TRANSFER IN A MOBILE NETWORK                                       | 6/19/2006  |
| 455/016 PROV    | 60/707,171     | NETWORK-INITIATED DATA TRANSFER IN A MOBILE NETWORK                                       | 8/11/2005  |
| 455/016/1 UTIL  | 11/471,704     | NETWORK-INITIATED DATA TRANSFER IN A MOBILE NETWORK                                       | 6/21/2006  |
| 455/016/2 UTIL  | 12/860,419     | NETWORK-INITIATED DATA TRANSFER IN A MOBILE NETWORK                                       | 8/20/2010  |
| 455/031/02 UTIL | 13/614,583     | FLEXIBLE REAL-TIME INBOX ACCESS   | 9/13/2012  |
| 455/031/1 UTIL  | 11/640,629     | FLEXIBLE REAL-TIME INBOX ACCESS   | 12/18/2006 |
| 455/032/1 UTIL  | 12/001,288     | ELECTRONIC-MAIL FILTERING FOR MOBILE DEVICES  | 12/10/2007 |
| 455/032/2 UTIL  | 13/735,811     | ELECTRONIC-MAIL FILTERING FOR MOBILE DEVICES  | 1/7/2013   |
| 455/032/3US     | 14/288,346     | ELECTRONIC-MAIL FILTERING FOR MOBILE DEVICES  | 5/27/2014  |
| 455/037/1 UTIL  | 12/141,871     | APPLICATION DISCOVERY ON MOBILE DEVICES   | 6/18/2008  |
| 455/038/1 UTIL  | 12/215,481     | PROVISIONING APPLICATIONS FOR A MOBILE DEVICE   | 6/26/2008  |
| 455/038/2 UTIL  | 13/312,664     | PROVISIONING APPLICATIONS FOR A MOBILE DEVICE   | 12/6/2011  |
| 455/102 PCT     | PCT/US11/43328 | CONTEXT AWARE TRAFFIC MANAGEMENT FOR RESOURCE CONSERVATION IN A WIRELESS NETWORK          | 7/8/2011   |
| 455/102 PROV    | 61/367,871     | CONTEXT AWARE TRAFFIC MANAGEMENT FOR RESOURCE CONSERVATION IN A WIRELESS NETWORK          | 7/26/2010  |
| 455/102/1 UTIL  | 13/178,598     | CONTEXT AWARE TRAFFIC MANAGEMENT FOR RESOURCE CONSERVATION IN A WIRELESS NETWORK          | 7/8/2011   |

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|----------------|------------|--|------------|
| 455/102/2 US   | 13/407,406 | MOBILE DEVICE RADIO USE OPTIMIZATION BY BATCHING LOW PRIORITY REQUESTS   | 2/28/2012  |
| 455/102/3 US   | 13/477,625 | MOBILE DEVICE RADIO USE OPTIMIZATION BY BATCHING LOW PRIORITY REQUESTS   | 5/22/2012  |
| 455/104/1 US   | 13/115,631 | MOBILE NETWORK TRAFFIC COORDINATION ACROSS MULTIPLE APPLICATIONS   | 5/25/2011  |
| 455/106 PCT    | US11/43322 | DISTRIBUTED IMPLEMENTATION OF DYNAMIC WIRELESS TRAFFIC POLICY  | 7/8/2011   |
| 455/106 PROV   | 61/408,829 | DISTRIBUTED IMPLEMENTATION OF DYNAMIC WIRELESS TRAFFIC POLICY  | 11/1/2010  |
| 455/106 UTIL   | 13/178,675 | DISTRIBUTED IMPLEMENTATION OF DYNAMIC WIRELESS TRAFFIC POLICY  | 7/8/2011   |
| 455/106/2 UTIL | 14/467,773 | DISTRIBUTED IMPLEMENTATION OF DYNAMIC WIRELESS TRAFFIC POLICY  | 8/25/2014  |
| 455/110 PCT    | US11/58843 | MOBILE TRAFFIC CATEGORIZATION AND POLICY FOR NETWORK USE OPTIMIZATION WHILE PRESERVING USER EXPERIENCE                         | 11/1/2011  |
| 455/110 PROV   | 61/408,820 | MOBILE TRAFFIC CATEGORIZATION AND POLICY FOR NETWORK USE OPTIMIZATION WHILE PRESERVING USER EXPERIENCE                         | 11/1/2010  |
| 455/110/1 UTIL | 13/287,058 | MOBILE TRAFFIC CATEGORIZATION AND POLICY FOR NETWORK USE OPTIMIZATION WHILE PRESERVING USER EXPERIENCE                         | 11/1/2011  |
| 455/110/2 CON  | 14448399   | MOBILE TRAFFIC CATEGORIZATION AND POLICY FOR NETWORK USE OPTIMIZATION WHILE PRESERVING USER EXPERIENCE                         | 7/31/2014  |
| 455/116 PCT    | US12/24882 | AUTOMATIC PROVISIONING OF INSTANT MESSAGING AND SOCIAL NETWORKING SERVICES   | 2/13/2012  |
| 455/116/1 UTIL | 13/372,145 | AUTOMATIC PROVISIONING OF INSTANT MESSAGING AND SOCIAL NETWORKING SERVICES   | 2/13/2012  |
| 455/146 PCT    | US12/68612 | RADIO-AWARENESS OF MOBILE DEVICE FOR SENDING SERVER-SIDE CONTROL SIGNALS USING A WIRELESS NETWORK OPTIMIZED TRANSPORT PROTOCOL | 12/7/2012  |
| 455/146/1 US   | 13/708,758 | RADIO-AWARENESS OF MOBILE DEVICE FOR SENDING SERVER-SIDE CONTROL SIGNALS USING A WIRELESS NETWORK OPTIMIZED TRANSPORT PROTOCOL | 12/7/2012  |
| 455/146/2 UTIL | 13/787,702 | RADIO-AWARENESS OF MOBILE DEVICE FOR SENDING SERVER-SIDE CONTROL SIGNALS USING A WIRELESS NETWORK OPTIMIZED TRANSPORT PROTOCOL | 3/6/2013   |
| 455/148 PCT    | US12/68822 | MOBILE NETWORK REPORTING AND USAGE ANALYTICS SYSTEM AND METHOD AGGREGATED USING A DISTRIBUTED TRAFFIC                          | 12/10/2012 |

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|----------------|------------------|---|------------|
|                |                  | OPTIMIZATION SYSTEM   |            |
| 455/148/1 US   | 13/710,274       | MOBILE NETWORK REPORTING AND USAGE ANALYTICS SYSTEM AND METHOD AGGREGATED USING A DISTRIBUTED TRAFFIC OPTIMIZATION SYSTEM                                   | 12/10/2012 |
| 455/148/2 US   | 13/710,336       | SYSTEM AND METHOD FOR GENERATING A REPORT TO A NETWORK OPERATOR BY DISTRIBUTING AGGREGATION OF DATA   | 12/10/2012 |
| 455/152/1 UTIL | 13/844,682       | MANAGEMENT OF MOBILE DEVICE RADIO STATE PROMOTION AND DEMOTION  | 3/15/2013  |
| 455/152/2 UTIL | 13/844,675       | SYSTEMS AND METHODS FOR APPLICATION MANAGEMENT OF MOBILE DEVICE RADIO STATE PROMOTION AND DEMOTION  | 3/15/2013  |
| 455/153/1 UTIL | 13/837,308       | OPTIMIZED AND SELECTIVE MANAGEMENT OF POLICY DEPLOYMENT TO MOBILE CLIENTS IN A CONGESTED NETWORK TO PREVENT FURTHER AGGRAVATION OF NETWORK CONGESTION       | 3/15/2013  |
| 455/160 PROV   | 61/859,364       | IRREGULAR POLLING PATTERN RECOGNITION AND CACHING IN DISTRIBUTED CACHING SYSTEMS WITH CONFIGURABLE EXTENDED CACHING OPTIMIZATION                            | 7/29/2013  |
| 455/161 PCT    | PCT/US2014/12828 | Application or context aware fast dormancy  | 1/23/2014  |
| 455/161/1 UTIL | 13/815,908       | Application or context aware fast dormancy  | 3/15/2013  |
| 455/161/2 UTIL | 13/815,921       | Mobile device with application or context aware fast dormancy   | 3/15/2013  |
| 455/162/1 UTIL | 13/844,726       | SIGNALING OPTIMIZATION IN A WIRELESS NETWORK FOR TRAFFIC UTILIZING PROPRIETARY AND NON-PROPRIETARY PROTOCOLS  | 3/15/2013  |
| 455/166 PROV   | 61/860,331       | SERVING CACHED RESPONSES TO APPLICATIONS BASED ON CATEGORIZATION OF THE SAME IN DISTRIBUTED CACHING SYSTEMS WITH CONFIGURABLE EXTENDED CACHING OPTIMIZATION | 7/31/2013  |
| 455/167 PROV   | 61/861,933       | DELAYING LONG POLL RESPONSES IN DISTRIBUTED CACHING SYSTEMS WITH CONFIGURABLE EXTENDED CACHING OPTIMIZATION   | 8/2/2013   |
| 455/169 PRO    | 61/833,796       | APPLICATION AND/OR SERVER STABILITY IN SIGNALING OPTIMIZATION IN A WIRELESS NETWORK FOR TRAFFIC UTILIZING PROPRIETARY AND NON-PROPRIETARY PROTOCOLS         | 6/11/2013  |

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| 455/169/1 PCT     | PCT/US14/42017 | APPLICATION AND/OR SERVER STABILITY IN SIGNALING OPTIMIZATION IN A WIRELESS NETWORK FOR TRAFFIC UTILIZING PROPRIETARY AND NON-PROPRIETARY PROTOCOLS | 6/11/2014 |
| 455/169/2 PCT/CON | 14/474,231     | APPLICATION AND/OR SERVER STABILITY IN SIGNALING OPTIMIZATION IN A WIRELESS NETWORK FOR TRAFFIC UTILIZING PROPRIETARY AND NON-PROPRIETARY PROTOCOLS | 9/1/2014  |
| 455/170 PCT       | PCT/US14/36669 | Optimizing Keep Alive and Other Background Traffic in a Wireless Network  | 5/2/2014  |
| 455/173 PCT       | PCT/US14/36262 | IDENTIFICATION AND REPORTING OF KEEP-ALIVE MESSAGES AND OTHER NON-USER INTERACTIVE TRAFFIC IN A MOBILE NETWORK                                      | 4/30/2014 |
| 455/173/3 YRUK    | 14/266,759     | DETECTION AND REPORTING OF KEEPALIVE MESSAGES FOR OPTIMIZATION OF KEEPALIVE TRAFFIC IN A MOBILE NETWORK   | 4/30/2014 |
| 455/173/2 PRO     | 61/836,039     | IDENTIFICATION AND REPORTING OF KEEP-ALIVE MESSAGES AND OTHER NON-USER INTERACTIVE TRAFFIC IN A MOBILE NETWORK                                      | 6/17/2013 |
| 455/174 PCT       | PCT/US14/40575 | OPTIMIZING TRAFFIC BY CONTROLLING KEEP-ALIVES   | 6/2/2014  |
| 455/175 PRO       | 61/857,152     | MODIFYING SYSTEM TIMERS FOR OPTIMIZING MOBILE TRAFFIC MANAGEMENT  | 7/22/2013 |
| 455/175/1UTIL     | 14/147,434     | MODIFYING SYSTEM TIMERS FOR OPTIMIZING MOBILE TRAFFIC MANAGEMENT  | 1/3/2014  |
| 455/175/2 UTIL    | 14/147,468     | EXTENDING DELAY TOLERANCE OF MOBILE APPLICATIONS FOR OPTIMIZING MOBILE TRAFFIC MANAGEMENT   | 1/3/2014  |
| 455/175/3 UTIL    | 14/467,951     | MODIFYING SYSTEM TIMERS FOR OPTIMIZING MOBILE TRAFFIC MANAGEMENT  | 8/25/2014 |
| 455/175/4 UTIL    | 14/468,032     | MODIFYING SYSTEM TIMERS FOR OPTIMIZING MOBILE TRAFFIC MANAGEMENT  | 8/25/2014 |
| 455/179/1 PROV    | 61/941,423     | Policy Management for Signaling Optimization in a Wireless Network for Traffic Utilizing Proprietary and Non-Proprietary Protocols                  | 2/18/2014 |
| 455/182/1 PCT     | PCT/US14/40766 | MODELING NETWORK SIGNALING IN A MOBILE NETWORK  | 6/3/2014  |
| 455/182/1US       | 14/295,289     | MODELING NETWORK SIGNALING IN A MOBILE NETWORK  | 6/3/2014  |
| 455/183 PCT       | PCT/US14/52697 | Enhanced Caching of Domain Name System (DNS) and Reverse DNS Queries for Traffic Management for Signaling Optimization in a Mobile Network          | 8/26/2014 |
| 455/183 PROV      | 61/870,210     | Enhanced Caching of Domain Name System (DNS) and Reverse DNS Queries for Traffic  | 8/26/2013 |

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|-------------------|----------------|---|------------|
|                   |                | Management for Signaling Optimization in a Mobile Network   |            |
| 455/183/2         | 14/469,539     | Enhanced Caching of Domain Name System (DNS) and Reverse DNS Queries for Traffic Management for Signaling Optimization in a Mobile Network      | 8/26/2014  |
| 455/184/2 PCT     | PCT/US14/46522 | Transport Protocol Layer of Optimization for Managing Signaling and Power Consumption   | 7/14/2014  |
| 455/186 PROV      | 61/905,120     | OPTIMIZATION OF SIGNALING CAUSED BY SESSION CLOSURES  | 11/15/2013 |
| 455/188 PROV      | 61/930,344     | Method For Power Saving in Mobile Devices   | 1/22/2014  |
| 455/190 PROV      | 62/022,614     | SECURE HANDLING OF SSL TRAFFIC  | 7/9/2014   |
| 455/178/3 PCT/CON | 14/748,226     | BLOCKING/UNBLOCKING ALGORITHMS FOR SIGNALING OPTIMIZATION IN A WIRELESS NETWORK FOR TRAFFIC UTILIZING PROPRIETARY AND NON-PROPRIETARY PROTOCOLS | 06/23/2015 |

FURTHERMORE, WHEREAS, the undersigned, Ari Backholm, (hereinafter "Assignor") has invented certain new and useful improvements described in the applications identified in Table I.

AND, WHEREAS, Seven Networks, Inc., having a place of business at 959 Skyway Road, Suite 100, San Carlos, CA 94070 (hereinafter "Assignee"), has already acquired an interest in the applications identified in Table I by and through an employment or other agreement between Assignor and Assignee.

However, in the avoidance of doubt and as confirmation of the already acquired interest by Assignee, NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor has assigned and by these presents does hereby sell, assign, transfer, and convey unto the Assignee, its successors and assigns, his entire right, title, and interest in and to the invention and application, including the right to sue for past infringements and any other prior occurring rights, provided any such rights exist, and in and to any and all domestic and foreign patent applications filed on the invention, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America, and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with his right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor further assigns to Assignee the right to claim entitlement and/or priority to any applications that entitlement or priority may be claimed for this or any later filed application. The assignment of the right to claim entitlement and/or priority is executed *nunc pro tunc* and is considered effective as of the filing date of the earliest application to which priority and/or entitlement is claimed.

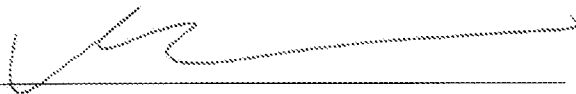


Assignor hereby requests that said Letters Patent be issued in accordance with this assignment.

Assignor further covenants and agrees that, at the time of the execution and delivery of these presents, Assignor possesses full title to the invention and application above-mentioned, and that he has the unencumbered right and authority to make this assignment.

Assignor further covenants and agrees, and likewise binds his heirs, legal representatives and assigns, to promptly communicate to said Assignee or its representatives any facts known to him relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the Assignee, its representatives, successors and assigns to secure patent or similar protection for the said invention in all countries and to vest in the Assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said Assignee, its successors, assigns and other legal representatives.

Executed this 5 day of September, 2014.



**Ari Backholm**