

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Osama Tarraf</td> <td>11/07/2012</td> </tr> <tr> <td>Mustafa Emin Sahin</td> <td>11/07/2012</td> </tr> <tr> <td>Arif Ansari</td> <td>11/07/2012</td> </tr> </tbody> </table>		Name	Execution Date	Osama Tarraf	11/07/2012	Mustafa Emin Sahin	11/07/2012	Arif Ansari	11/07/2012				
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<table border="1"> <tr> <td>Name:</td> <td>Reverb Networks, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>21515 Ridgetop Circle</td> </tr> <tr> <td>Internal Address:</td> <td>Suite 290</td> </tr> <tr> <td>City:</td> <td>Sterling</td> </tr> <tr> <td>State/Country:</td> <td>VIRGINIA</td> </tr> <tr> <td>Postal Code:</td> <td>20166</td> </tr> </table>		Name:	Reverb Networks, Inc.	Street Address:	21515 Ridgetop Circle	Internal Address:	Suite 290	City:	Sterling	State/Country:	VIRGINIA	Postal Code:	20166
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PROPERTY NUMBERS Total: 3													
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CORRESPONDENCE DATA													
Fax Number: 2028427899 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: (202) 842-7800 Email: mharris@cooley.com Correspondent Name: Cooley LLP Address Line 1: 777 6th Street, NW Address Line 2: Suite 1100 Address Line 4: Washington, DISTRICT OF COLUMBIA 20001													
ATTORNEY DOCKET NUMBER:	REVB-015/01US 315256-2044												

CH \$120.00 13606528

NAME OF SUBMITTER:

David W. Hopkins

Total Attachments: 6

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PATENT

REEL: 029336 FRAME: 0594

ASSIGNMENT

Osama TARRAF, residing at 110 N College Drive, #218, Sterling VA 20164; Mustafa Emin SAHIN, residing at 21087 Bitterroot Terrace, Ashburn, VA 20147; and Arif ANSARI, residing at 7213 Grubby Thicket Way, Bethesda, MD 20817 (each referred to as "Assignor") have made an invention(s) (the "Invention(s)") set forth in applications for patent of the United States which are:

- (1) ☒ a non-provisional application
 - (a) ☐ to be filed herewith; or
 - (b) ☒ bearing Application No. 13/606,528, filed on September 7, 2012, and entitled METHODS AND APPARATUS FOR IMPLEMENTING A SELF OPTIMIZING-ORGANIZING NETWORK MANAGER; and
- (2) ☒ a provisional application
 - (a) ☐ to be filed herewith; or
 - (b) ☒ bearing Application No. 61/532,850, filed on September 9, 2011, and entitled SELF OPTIMIZING-ORGANIZING NETWORK MANAGER; and

an application for patent filed under the Patent Cooperation Treaty which is a:

- (3) ☒ PCT application
 - (a) ☐ to be filed herewith; or
 - ☒ bearing Application No. PCT/US2012/054204, filed on September 7, 2012, and entitled METHODS AND APPARATUS FOR IMPLEMENTING A SELF OPTIMIZING-ORGANIZING NETWORK MANAGER.

WHEREAS, REVERB NETWORKS, INC., a corporation duly organized under and pursuant to the laws of Delaware, and having its principal place of business at 21515 Ridgetop Circle, Suite 290, Sterling, VA 20166 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention; the applications for patent identified in paragraphs (1), (2) and (3); the right to file applications for patent of the United States or other countries on the Invention; any application for patent of the United States or other countries claiming priority to at least one of these applications; any provisional or other right to recover damages, including royalties, for prior infringements of at least one of applications; and any patent of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention(s);
- (b) the applications for patent identified in paragraphs (1), (2) and (3);
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to at least one of the applications for patent identified in paragraphs (1), (2) and (3) or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) - (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignor, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests the attorneys of COOLEY LLP to insert in the spaces provided above the filing date, the application number, and the attorney docket number of the applications identified in paragraphs (1), (2) and (3) when known.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: Nov 7th, 2012

By: _____



Osama TARRAF

State of _____)
) ss.
County of _____)

On _____, before me, _____,
Notary Public, personally appeared _____,
personally known to me or proved to me on the basis of satisfactory evidence, to be the
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to
me that he/she/they executed the same in his/her/their authorized capacity(ies), and that
by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary Public

Place Notary Seal Above

My Commission Expires: _____

Date: 11/07/2012

By: 
Mustafa Emin SAHIN

State of _____)
County of _____) ss.

On _____, before me, _____,

Notary Public, personally appeared _____,

personally known to me or proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary Public

Place Notary Seal Above

My Commission Expires: _____

Date: 11/7/2012

By: 
Arif ANSARI

State of _____)
County of _____) ss.

On _____, before me, _____, Notary Public, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence, to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary Public

Place Notary Seal Above

My Commission Expires: _____