PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
INTELLECTUAL VENTURES ASSETS 87 LLC	07/16/2018

RECEIVING PARTY DATA

Name:	VIRTUAL WATCHDOG SOLUTIONS, LLC
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PROPERTY NUMBERS Total: 5

Property Type	Number
Patent Number:	7343421
Patent Number:	7739401
Patent Number:	8489764
Patent Number:	6643778
Patent Number:	6421732

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NAME OF SUBMITTER:	MARK S. LEONARDO
SIGNATURE:	/MARK S. LEONARDO/
DATE SIGNED:	01/28/2019

Total Attachments: 2
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Exhibit A-1

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, Intellectual Ventures Assets 87 LLC, a Delaware limited liability company with an address at 251 Little Falls Drive, Wilmington, DE 19808 ("***Assignor***"), does hereby sell, assign, transfer, and convey unto Virtual Watchdog Solutions, LLC, a Delaware limited liability company with an address at 919 North Market Street, Suite 950, Wilmington, DE 19801("***Assignee***"), all of Assignor's right, title, and interest in and to the following (collectively, the "***Assigned Patent Rights***"):

(a) the patents and patent applications listed in the table below (the "***Patents***");

Patent/ Application Number	Country	Issue Date/ Filing Date	Title of Patent and Inventors
7343421 (09/503975)	US	3/11/2008 (2/14/2000)	Restricting Communication of Selected Processes to a Set of Specific Network Addresses Pawan Goyal
7739401 (12/025727)	US	6/15/2010 (2/4/2008)	Restricting Communication of Selected Processes to a Set of Specific Network Addresses Pawan Goyal
8489764 (12/772982)	US	7/16/2013 (5/3/2010)	Restricting Communication of Selected Processes to a Set of Specific Network Addresses Pawan Goyal
6643778 (09/280453)	US	11/4/2003 (3/30/1999)	NETWORK SYSTEM USING A FIREWALL DYNAMIC CONTROL METHOD Osamu Nakazawa
6421732 (09/167709)	US	7/16/2002 (10/6/1998)	IPNET GATEWAY Hasan S. Alkhatib; Bruce C. Wootton

(b) any reissues, reexaminations, extensions, continuations, continuing prosecution applications, requests for continuing examinations, divisions, and registrations of any of the Patents and any patents or patent applications which correspond to or claim priority to any of the foregoing, and all foreign counterparts of the foregoing;

(c) rights to apply in any or all countries of the world for future patents, certificates of invention, utility models, industrial design protections, design patent protections, or other future governmental grants or issuances of any type related to the Patents; and

(d) causes of action and enforcement rights of any kind under, or on account of, any of the Patents and/or any of the items described in either of the foregoing categories (b) or (c), including, without limitation, all causes of action, enforcement rights and all other rights to seek and obtain monetary damages and any other remedies of any kind for past, current and future infringement.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all future patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Assigned Patent Rights in the name of Assignee, as the assignee to the entire interest therein. This Assignment of Patent Rights will inure for the benefit of any permitted successors or assigns of Assignee.

Assignor will, at the reasonable request of Assignee, take all reasonable steps necessary and proper, to confirm the assignment to Assignee of the Assigned Patent Rights pursuant to this Assignment of Patent Rights, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining and perfecting the Assigned Patent Rights

IN WITNESS WHEREOF this Assignment of Patent Rights is executed on July 16, 2018.

ASSIGNOR:

Intellectual Ventures Assets 87 LLC

By: _____

Name: Jim Weisfield

Title: Authorized Person

State of Washington
County of King

On 16 July 2018 Jim Weisfield personally appeared before me Janice L. Goebel, Notary Public in and for said state the person to me on the basis of satisfactory evidence to be the person whose name is subscribed to this within and instrument and acknowledged to me that he executed the same in his capacity and that by his signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument

Witness my hand

Janice L. Goebel

Notary Public

JANICE L. GOEBEL
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
FEBRUARY 9, 2019