

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT5497892

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	M2M AND IOT TECHNOLOGIES, LLC	12/29/2017
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	NETWORK-1 TECHNOLOGIES, INC.	
<b>Street Address:</b>	445 PARK AVENUE	
<b>Internal Address:</b>	SUITE 912	
<b>City:</b>	NEW YORK	
<b>State/Country:</b>	NEW YORK	
<b>Postal Code:</b>	10022	
<b>PROPERTY NUMBERS Total: 2</b>		
	<b>Property Type</b>	<b>Number</b>
	<b>Application Number:</b>	16271428
	<b>Application Number:</b>	16271455
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(212)336-8001	
<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>Phone:</b>	212-336-8000	
<b>Email:</b>	ptodocket@arelaw.com, vgilmore@arelaw.com	
<b>Correspondent Name:</b>	AMSTER, ROTHSTEIN & EBENSTEIN LLP	
<b>Address Line 1:</b>	90 PARK AVENUE	
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10016	
<b>ATTORNEY DOCKET NUMBER:</b>	63121/0180-0181	
<b>NAME OF SUBMITTER:</b>	KEITH J. BARKAUS	
<b>SIGNATURE:</b>	/Keith J. Barkaus/	
<b>DATE SIGNED:</b>	04/29/2019	
<b>Total Attachments: 7</b>		
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**RECORDABLE ASSIGNMENT**

**Assignment of Patents from ASSIGNOR to ASSIGNEE**

In consideration of the payment by ASSIGNEE to ASSIGNOR of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

ASSIGNOR:

M2M and IOT Technologies, LLC  
807 Davis Street, Unit 2207  
Evanston, Illinois 60201

hereby sells, assigns and transfers to ASSIGNEE:

Network-1 Technologies, Inc.  
445 Park Avenue, Suite 912  
New York, New York 10022

and the successors, assigns, and legal representatives of the ASSIGNEE, the entire right, title, and interest for the United States and its territorial possessions, and in all foreign countries and regions, including all rights to claim priority, in and to the inventions that were invented by and/or owned by ASSIGNOR, and which are found in the patents and patent applications that are listed in the attached Exhibit A, and any legal equivalents thereof in any foreign country or region, including the right to claim priority, including any and all improvements disclosed therein, and in and to all Letters Patents to be obtained for said inventions, or any continuation, continuation-in-part claiming said inventions or improvements, divisional, renewal, or substitute thereof, and, as to the Letters Patents, any reissue or re-examination or other post-grant issuance thereof (the "PATENTS"), and further including all income, royalties, damages and payments now or hereafter due or payable in respect to the PATENTS, and all causes of action (either in law or in equity) and the sole right to sue, counterclaim and recover for past, present and future infringement of the PATENTS, or any continuation, continuation-in-part claiming said inventions or improvements, divisional, renewal, or substitute thereof, and, as to the Letters Patents, any reissue or re-examination or other post-grant issuance thereof.

ASSIGNOR hereby covenants that no assignment, sale, agreement, or encumbrance has been, or will be, made or entered into which would conflict with this Assignment.

ASSIGNOR authorizes ASSIGNEE to make applications for, and to receive, Letters Patent for said inventions in any of said countries or regions, in ASSIGNEE's name, or in ASSIGNOR's name, at ASSIGNEE's election.

ASSIGNOR covenants and agrees to execute or procure any further necessary assurance of the title to said inventions, and any Letters Patent which may issue therefor, and to, at any time, upon the request and at the expense of ASSIGNEE, deliver any testimony in any interference, litigation, or proceeding related thereto, and to execute all papers that may be necessary or desirable to perfect the title to said inventions, or any Letters Patent which may be granted therefor in ASSIGNEE, its successors, assigns, or other legal representatives, and to, at any time, upon the request and at the expense of ASSIGNEE, execute any continuation, continuation-in-part claiming said inventions or improvements, divisional, renewal, or substitute thereof, and, as to Letters Patent, any reissue or re-examination or other post-grant issuance thereof, or any other additional application for Letters Patent for said inventions or any part thereof, in any of said countries or regions, all of which applications and any Letters Patent issuing thereon are hereby assigned to ASSIGNEE, will make all rightful oaths or declarations, and do all lawful acts requisite for procuring the same therein, without further compensation, but at the expense of ASSIGNEE, its successors, assigns, or other legal representatives.

ASSIGNOR authorizes and requests the Commissioner of Patents to issue any and all Letters Patent of the United States of America for said inventions, resulting from the aforesaid patents and patent applications, to Network-1 Technologies, Inc., as its ASSIGNEE.

IN WITNESS WHEREOF, ASSIGNOR has signed this Assignment on the date indicated adjacent to its signature below.

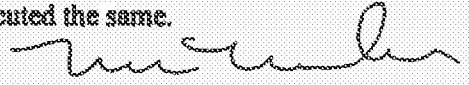
M2M AND IOT TECHNOLOGIES, LLC

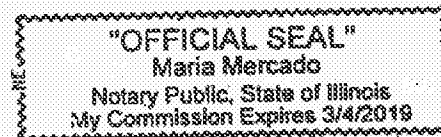
Dated: December 29, 2017

By:   
Name: John Nix  
Title: Manager

STATE OF IL )  
COUNTY OF COOK ) ss.:

On this 29<sup>th</sup> day of Dec., 2017, before me came John Nix to me known and known to me to be the individual described in, and who executed the foregoing instrument, and he acknowledged to me that he had executed the same.

  
Notary Public



**Exhibit A**

**RECORDABLE ASSIGNMENT**

**PATENTS**

**Issued Patents**

	<b>Application No.</b>	<b>Title</b>	<b>Filed</b>	<b>Patent No.</b>	<b>Issued</b>
1	14/023,181	Power Management and Security for Wireless Modules in "Machine-to-Machine" Communications	Sept. 10, 2013	9,350,550	May 24, 2016
2	14/039,401	Secure PKI Communications for "Machine-to-Machine" Modules, Including Key Derivation by Modules and Authenticating Public Keys	Sept. 27, 2013	9,288,059	Mar. 15, 2016
3	14/055,606	Systems and Methods for "Machine-to-Machine" (M2M) Communications between Modules, Servers, and an Application Using Public Key Infrastructure (PKI)	Oct. 16, 2013	9,276,740	Mar. 1, 2016
4	14/064,618	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Oct. 28, 2013	9,118,464	Aug. 25, 2015
5	14/084,141	Key Derivation for a Module Using an Embedded Universal Integrated Circuit Card	Nov. 19, 2013	9,319,223	Apr. 19, 2016
6	14/099,329	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Dec. 6, 2013	9,100,175	Aug. 4, 2015
7	14/136,711	Module for "Machine-to-Machine" Communications Using Public Key Infrastructure	Dec. 20, 2013	9,300,473	Mar. 29, 2016
8	14/139,419	Network Supporting Two-Factor Authentication for Modules Embedded Universal Integrated Circuit Cards	Dec. 23, 2013	9,351,162	May 24, 2016
9	15/010,905	Systems and Methods for "Machine-to-Machine" (M2M) Communications Between Modules, Servers, and an Application Using Public Key Infrastructure (PKI)	Jan. 29, 2016	9,641,327	May 2, 2017

**PATENT**

**REEL: 049024 FRAME: 0691**

**Issued Patents (continued)**

	<b>Application No.</b>	<b>Title</b>	<b>Filed</b>	<b>Patent No.</b>	<b>Issued</b>
10	14/789,255	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Jul. 1, 2015	9,596,078	Mar. 14, 2017
11	15/162,302	Power Management and Security for Wireless Modules in "Machine-to-Machine" Communications	May 23, 2016	9,698,981	July 4, 2017
12	15/130,146	Key Derivation for a Module Using an Embedded Universal Integrated Circuit Card	Apr. 15, 2016	9,742,562	Aug 22, 2017

# **U.S. and International Patent Applications**

## **U.S.**

	Application No.	Title	Filed	Patent No.	Issued
1	15/642,088	Power Management and Security for Wireless Modules in "Machine-to-Machine" Communications	Jul. 5, 2017		
2	15/043,293	Secure PKI Communications for "Machine-to-Machine" Modules, Including Key Derivation by Modules and Authenticating Public Keys	Feb. 12, 2016		
3	15/583,968	Systems and Methods for "Machine-to-Machine" (M2M) Communications between Modules, Servers, and an Application Using Public Key Infrastructure (PKI)	May 1, 2017		
4	15/457,700	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Mar. 13, 2017		
5	14/751,119	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Jun. 25, 2015		
6	15/162,292	Network Supporting Two-Factor Authentication for Modules Embedded Universal Integrated Circuit Cards	May 23, 2016		
7	15/680,758	Key Derivation for a Module Using an Embedded Universal Integrated Circuit Card	Aug. 18, 2017		



**US and International Patent Applications (continued)**

**International**

	Application No.	Title	Filed	Patent No.	Issued
1	PCT/US14/62435	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Oct. 27, 2014		
2	PCT/US14/68544	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Dec. 4, 2014		
3	AU 2014342646 (Australia)	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Oct. 27, 2014		
4	GB 1608573.0 (United Kingdom)	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Oct. 27, 2014		
5	2,965,119 (Canada)	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	Oct. 27, 2014		
6	17101082.8 (Hong Kong)	Set of Servers for "Machine-to-Machine" Communications Using Public Key Infrastructure	[TBD]		
7	14868381.6 (EPO)	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Dec. 4, 2014		
8	2,969,829 (Canada)	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Dec. 4, 2017		
9	17106540.3 (Hong Kong)	Embedded Universal Integrated Circuit Card Supporting Two-Factor Authentication	Jun. 30, 2017		