# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT7213575

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TAL EFRAIM BEN DAVID	02/10/2019
ASSAF HAREL	02/10/2019
AMIRAM DOTAN	02/10/2019
DAVID BARZILAI	02/10/2019
ELI MORDECHAI	02/11/2019

#### **RECEIVING PARTY DATA**

Name:	KARAMBA SECURITY LTD.
Street Address:	24 HANAGAR STREET
City:	HOD HASHARON
State/Country:	ISRAEL
Postal Code:	45277-13

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17654024

### **CORRESPONDENCE DATA**

Fax Number: (202)408-4400

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.

Phone: 2024084000

Email: faxserve@finnegan.com

**Correspondent Name:** FINNEGAN HENDERSON ET AL. Address Line 1: 901 NEW YORK AVENUE, NW Address Line 4: WASHINGTON, D.C. 20001

ATTORNEY DOCKET NUMBER:	14952.0030-03000
NAME OF SUBMITTER:	MATTHEW M. KARAS
SIGNATURE:	/Matthew M. Karas (ldc)/
DATE SIGNED:	03/08/2022

**Total Attachments: 10** 

source=14952-0030-03000-ParentKarambaOmnibusAssignment#page1.tif

**PATENT** REEL: 059200 FRAME: 0831

507166729

source=14952-0030-03000-ParentKarambaOmnibusAssignment#page3.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page4.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page5.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page6.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page7.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page8.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page10.tif
source=14952-0030-03000-ParentKarambaOmnibusAssignment#page5.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page6.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page7.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page8.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif
source=14952-0030-03000-ParentKarambaOmnibusAssignment#page6.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page7.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page8.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif
source=14952-0030-03000-ParentKarambaOmnibusAssignment#page7.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page8.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif
source=14952-0030-03000-ParentKarambaOmnibusAssignment#page8.tif source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif
source=14952-0030-03000-ParentKarambaOmnibusAssignment#page9.tif
agurage 14052 0020 02000 Barantkaramba Omnibua Agaignmentthaga 10 tif
source=14952-0050-05000-ParentharambaOmmbusAssignment#page10.til

## **ASSIGNMENT**

WHEREAS I/We are the below-named inventors (hereinafter referred to as **Assignors**) of the inventions as disclosed and claimed in the applications and patents identified below this paragraph:

Application Number	Patent Number	Title	Country of Filing	Filing Date
62/752,111		Sensor Validation Status	US	10-29-2018
62/724,987		Systems and Methods for End-to-End Prevention and Protection Against Cybersecurity Threats to Vehicles	US	08-30-2018
62/694,771		Data Privacy Management System	US	07-06-2018
62/346,896		Automated Security Policy Generation for Controllers	US	06-07-2016
16/255,968		In-Place Authentication Scheme for Securing Intra-Vehicle Communication	US	01-24-2019
16/251,135		Cryptographic Key Management for End-To-End Communication Security	US	01-18-2019
16/234,714		In-Memory Protection for Controller Security	US	12-28-2018
16/205,725		Secure Controller Operation and Malware Prevention	US	11-30-2018
16/140,144		In-Place Authentication Scheme for Securing Intra-Vehicle Communication	US	09-24-2018
16/036,521		Automotive ECU Controller and Data Network Having Security Features for Protection from Malware Transmission	US	07-16-2018
16/020,323		Cryptographic Key Management for End-To-End Communication Security	US	06-27-2018
15/997,167	10,204,219	In-Memory Protection for Controller Security	US	06-04-2018
15/861,309	10,057,286	Automotive ECU Controller and Data Network Having Security Features for Protection from Malware Transmission	US	01-03-2018
15/835,451	10,009,325	End-To-End Communication Security	US	12-07-2017
15/614,187		In-Memory Protection for Controller Security	US	06-05-2017
16767024.9		Context-Based Secure Controller Operation and Malware Prevention	ΕP	9/7/2016

Page 1 of 4

PCT/IB2017/051959	-	Automated Security Policy Generation for Controllers	PCT	4/5/2017
17717868.8		Automated Security Policy Generation for Controllers	EΡ	11/2/2017
PCT/IB2017/051964		Secure Controller Operation and Malware Prevention	PCT	4/5/2017
PCT/IB2017/051965		Reporting and Processing Controller Security Information	PCT	4/5/2017
17717869.6		Reporting and Processing Controller Security Information	ΕP	11/2/2018
PCT/IB2017/051967		Centralized Controller Management and Anomaly Detection	PCT	4/5/2017
17717870.4		Centralized Controller Management and Anomaly Detection	EP	11/2/2018
PCT/IB2018/050047		Automotive ECU Controller and Data Network Having Security Features for Protection from Malware Transmission	PCT	1/3/2018
PCT/IB2018/053994	<del></del>	In-Memory Protection for Controller Security	PCT	6/4/2018
PCT/IB2018/055357		End-to-End Communication Security	PCT	7/18/2018
62/319,178		Automotive Controller Security	US	4/6/2016
62/215,065		System and Methods for Securing an Automotive Controller	US	9/7/2015
62/735,647		Geographically Distributed Virtual Controllers for Capturing Malware	บร	9/24/2018

WHEREAS, Karamba Security Ltd., a corporation of Israel whose post office address is 24 HaNagar Street, Hod Hasharon, Israel 45277-13 (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to these inventions in all countries throughout the world, and in and to all applications for patents on these inventions in all countries throughout the world, including any PCT International Application and all national stage applications based thereon that may be filed, and all patents issued upon such applications in all countries throughout the world:

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to these inventions, the above-referenced applications and patents that disclose and claim these inventions, any PCT International Applications and all national stage applications based thereon that may be filed, any other applications for patents filed anywhere in the world that claim these inventions, and all divisions, and continuations of any such application, and all patents which may be granted thereon, and all reissues thereof, and all rights to claim priority in any country on the basis of any such applications, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request that any official of any country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for these inventions to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

Page 2 of 4

AND, I/WE covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting these inventions, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to these inventions in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for these inventions in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

ASSIGNOR (Inventor) 1
( )
7/02 10V
Signature
Assaf Harel
Print Name
February 10th, 2019
Execution Date
ASSIGNOR (Inventor) 2
Signature
Eli Mordechaì
Print Name
Execution Date
ASSIGNOR (Inventor) 3
Signature
Tal Efraim Ben David
Print Name
1 THE CHAPTE
Execution Date
ASSIGNOR (Inventor) 4
Signature

Page 3 of 4

AND, I/WE covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting these inventions, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to these inventions in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for these inventions in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

JOST SOL
Signature
Assaf Harel
Print Name
February 10th, 2019
Execution Date
ASSIGNOR (Inventor) 2
<u> LAI MRIBO</u>
Signature
Eli Mordechaì
Print Name
11 Feb 2019
Execution Date
ASSIGNOR (Inventor) 3
Signature
Tal Efraim Ben David
Print Name
Execution Date
ASSIGNOR (Inventor) 4
Signature
Page 3 of A

ASSIGNOR (Inventor) 1

AND, I/WE covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting these inventions, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to these inventions in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for these inventions in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

ASSIGNOR (Inventor) 1
Slow Son
Signature
Assaf Harel
Print Name
February 10 <sup>th</sup> , 2019
Execution Date
ASSIGNOR (Inventor) 2
Signature
Elí Mordechai
Print Name
Execution Date  ASSIGNOR (Inventor) 3
Signature
Tal Efraim Ben David
Print Name February 10, 2019
Execution Date
ASSIGNOR (Inventor) 4
Signature

Page 3 of 4

AND, I/WE covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting these inventions, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to these inventions in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for these inventions in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

ASSIGNOR (Inventor) 1
( 0
Just Dala
<u> </u>
Signature
Assaf Harel
Print Name
February 10th, 2019
Execution Date
ASSIGNOR (Inventor) 2
Signature
Eli Mordechai
Print Name
Execution Date
ASSIGNOR (Inventor) 3
Signature
Tal Efraim Ben David
Print Name
Execution Date
ASSIGNOR (Inventor) 4
ai Ma
Signature

Page 3 of 4

Amiram Dotan	-
Print Name February 10, 2019	
Execution Date	
ASSIGNOR/Inventor) 5	<u>.</u> ,
Signature	
David Barzilai	-
Print Name	
February 10, 2019	
Execution Date	
ASSIGNOR (Inventor) 6	
Signature	-
Amir Herzberg	-
Print Name	
Execution Date	•
ASSIGNOR (Inventor) 7	
Signature	-
Itay Khazon	•
Print Name	
Execution Date	•
ASSIGNEE Name:	
Signature:	
Printed Name:	
Corporate Title:	
Date:	

Page 4 of 4

Amiram Dotan	 -	
Print Name		
Execution Date		
ASSIGNOR (Inventor) 5		
Signature	•	
David Barzilai		
Print Name		
Execution Date		
ASSIGNOR (Inventor) 6		
2330 974 i	•	
Signature		
Amir Herzberg	•	
Print Name		
Feb. 11, 2019	 •	
Execution Date		
ASSIGNOR (Inventor) 7		
Signature		
Itay Khazon	 -	
Print Name		
Execution Date		
ASSIGNEE Name: _		
Signature: _		
Printed Name: _		
Corporate Title: _		
Date: _	 	

Page 4 of 4

Amiram Dotan		-
Print Name		
Execution Date		-
ASSIGNOR (Inventor)	5	
Signature		-
David Barzilai		-
Print Name		
Execution Date		•
ASSIGNOR (Inventor)	6	
Signature		-
Amir Herzberg		_
Print Name		
Feb. 11, 2019		_
Execution Date		
ASSIGNOR (Inventor)	7	
Signature		-
Itay Khazon		_
Print Name		-
Feb. 11, 2019		_
Execution Date		
ASSIGNEE Name:		
Signature:		
Printed Name:		
Corporate Title:		
•		
Date:		

Page 4 of 4

Amiram Dotan				
Print Name				
Execution Date				
ASSIGNOR (Inventor) 5				
Signature				
David Barzilai				
Print Name				
Execution Date				
ASSIGNOR (Inventor) 6				
Signature				
Amir Herzberg				
Print Name				
Execution Date				
ASSIGNOR (Inventor) 7				
Signature				
Itay Khazon				
Print Name				
Execution Date				
ASSIGNEE Name:	Karamba Şecu	rity LTD	Karamba Secu 5153909	rity Ltd. 79
	(, , )			
Signature:	7/CD) (10	$\sim$		
Printed Name:	Assaf Harel			
Corporate Title:	Chief Scientist			
Date:	February 10th, 2	2019		

Page 4 of 4