PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5525397

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAN QUIRKE	05/02/2018
PETER LANDROCK	04/18/2018

RECEIVING PARTY DATA

Name:	CRYPTOMATHIC LTD.	
Street Address:	327 CAMBRIDGE SCIENCE PARK	
Internal Address:	MILTON ROAD	
City:	CAMBRIDGE, CAMBRIDGESHIRE	
State/Country:	Country: GREAT BRITAIN	
Postal Code:	CB4 0WG	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15533636

CORRESPONDENCE DATA

Fax Number: (949)760-9502

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: 949-760-0404

Email: efiling@knobbe.com

KNOBBE, MARTENS, OLSON & BEAR LLP **Correspondent Name:**

Address Line 1: 2040 MAIN STREET

Address Line 2: 14TH FLOOR

Address Line 4: IRVINE, CALIFORNIA 92614

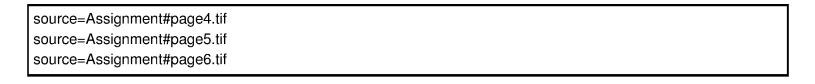
ATTORNEY DOCKET NUMBER:	MARKS20.011APC	
NAME OF SUBMITTER:	DAMIEN J. HOWARD	
SIGNATURE:	/Damien J. Howard/	
DATE SIGNED:	05/15/2019	

Total Attachments: 6

source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif

> **PATENT REEL: 049189 FRAME: 0572**

505478593



Application Data Sheet filed previously or concurrently

Docket No.: MARKS20.011APC

Page 1 of 3

Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION

Inventors: Dan Quirke, Mike Bond, and Peter Landrock

Declaration

This Declaration is directed to the application identified above that:

Was filed **June 6, 2017** as U.S. or International Application No. **15/533636** and incorporating any amendments made thereto prior to the signature date of this Declaration.

As a named inventor, I declare that:

The above-identified application 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.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

Assignment from Inventors

WHEREAS, above-identified inventors (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries, and hereby assign or are under an obligation to assign to the below identified Assignee the above-titled application (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application").

AND WHEREAS, Cryptomathic Ltd., with its principal place of business at 327 Cambridge Science Park, Milto Road, Cambridge, Cambridgeshire, GB, CB4 0WG (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all Patent Properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

all provisional applications relating thereto;

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

Application Data Sheet filed previously or concurrently

Docket No.: MARKS20,011APC

Page 2 of 3

Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION

Inventors: Dan Quirke, Mike Bond, and Peter Landrock

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned Patent Properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, authorize the filing of and execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e)) Application Data Sheet filed previously or concurrently		
Docket No.: MARKS20.011APC	Page 3 of 3	
Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION		
inventors: Dan Quirke, Mike Bond, and Peter Landrock		
Legal Name of inventor: Dan Quirke	Date: \$\langle 2 \langle 2.019	
Witnessed by:		
Witness Name (printed):	JAMES DESWERT	
Legal Name of inventor: Mike Bond Signature:	Date:	
Witnessed by:		
Legal Name of inventor: Peter Landrock Signature:		
Witnessed by:		
Witness Name (printed):		

Application Data Sheet filed previously or concurrently

Docket No.: MARKS20.011APC Page 1 of 3

Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION

inventors: Dan Quirke, Mike Bond, and Peter Landrock

Declaration

This Declaration is directed to the application identified above that:

Was filed June 6, 2017 as U.S. or International Application No. 15/533636 and incorporating any amendments made thereto prior to the signature date of this Declaration.

As a named inventor, I declare that:

The above-identified application 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.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

Assignment from Inventors

WHEREAS, above-identified inventors (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries, and hereby assign or are under an obligation to assign to the below identified Assignee the above-titled application (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (identified above) has been prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application").

AND WHEREAS, Cryptomathic Ltd., with its principal place of business at 327 Cambridge Science Park, Milto Road, Cambridge, Cambridgeshire, GB, CB4 0WG (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all Patent Properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

all provisional applications relating thereto:

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

Application Data Sheet filed previously or concurrently

Docket No.: MARKS20.011APC Page 2 of 3

Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION

Inventors: Dan Quirke, Mike Bond, and Peter Landrock

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned Patent Properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, authorize the filing of and execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e)) Application Data Sheet filed previously or concurrently		
Docket No.: MARKS20.011APC	Page 3 of 3	
Title: SYSTEM AND METHOD FOR ENABLING SECURE AUTHENTICATION		
Inventors: Dan Quirke, Mike Bond, and Peter Landrock		
Legal Name of inventor: Dan Quirke		
Signature:	Date:	
Legal Name of inventor: Mike Bond Signature:		
Witnessed by:		
Witness Name (printed):	A	
Signature: Witnessed by:	0 Date: 18.04, 186	
/ Witness Name (printed):	Pamera Stoney	

PATENT REEL: 049189 FRAME: 0579

RECORDED: 05/15/2019