PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4252406

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
OWL COMPUTING TECHNOLOGIES, INC.	01/31/2017

RECEIVING PARTY DATA

Name:	BANK OF AMERICA, N.A.
Street Address:	8300 GREENSBORO DRIVE
City:	MCLEAN
State/Country:	VIRGINIA
Postal Code:	22102

PROPERTY NUMBERS Total: 32

Property Type	Number
Patent Number:	5703562
Patent Number:	7675867
Patent Number:	7941526
Patent Number:	7992209
Patent Number:	8068415
Patent Number:	8139581
Patent Number:	8266689
Patent Number:	8352450
Patent Number:	8353022
Patent Number:	8498206
Patent Number:	8516580
Patent Number:	8565237
Patent Number:	8646094
Patent Number:	8732453
Patent Number:	8776254
Patent Number:	8831222
Patent Number:	8887276
Patent Number:	8898227
Patent Number:	8938795
Patent Number:	8997202

PATENT REEL: 041136 FRAME: 0223

504205729

Property Type	Number
Patent Number:	9065878
Patent Number:	9081520
Patent Number:	9088539
Patent Number:	9088558
Patent Number:	9094401
Patent Number:	9282102
Patent Number:	9305189
Patent Number:	9306953
Patent Number:	9311329
Patent Number:	9380023
Patent Number:	9380064
Patent Number:	9436825

CORRESPONDENCE DATA

Fax Number: (404)885-3900

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: 4048853868

Email: rusty.close@troutmansanders.com

Correspondent Name: CHRISTOPHER CLOSE
Address Line 1: TROUTMAN SANDERS LLP

Address Line 2: 600 PEACHTREE STREET NE, SUITE 5200

Address Line 4: ATLANTA, GEORGIA 30308-2216

ATTORNEY DOCKET NUMBER:	200207.000094
NAME OF SUBMITTER:	CHRISTOPHER CLOSE
SIGNATURE:	/Christopher Close/
DATE SIGNED:	01/31/2017

Total Attachments: 5

source=BA-QRC (Executed Notice of Grant of Security Interest in Patents - 1-17)#page1.tif source=BA-QRC (Executed Notice of Grant of Security Interest in Patents - 1-17)#page2.tif source=BA-QRC (Executed Notice of Grant of Security Interest in Patents - 1-17)#page3.tif source=BA-QRC (Executed Notice of Grant of Security Interest in Patents - 1-17)#page4.tif source=BA-QRC (Executed Notice of Grant of Security Interest in Patents - 1-17)#page5.tif

NOTICE OF GRANT OF SECURITY INTEREST IN PATENTS

United States Patent and Trademark Office

Ladies and Gentlemen:

Please be advised that pursuant to the Amended and Restated Security and Pledge Agreement dated as of January 31, 2017 (as amended, modified, extended, restated, renewed, replaced, or supplemented from time to time, the "Agreement") by and among the Grantors party thereto (each a "Grantor" and collectively, the "Grantors") and Bank of America, N.A., as administrative agent (the "Administrative Agent") for the Secured Parties referenced therein, the undersigned Grantor has granted a continuing security interest in and continuing lien upon the patents and patent applications shown on Schedule 1 attached hereto to the Administrative Agent for the ratable benefit of the Secured Parties.

The undersigned Grantor and the Administrative Agent, on behalf of the Secured Parties, hereby acknowledge and agree that the security interest in the foregoing patents and patent applications (a) may only be terminated in accordance with the terms of the Agreement and (b) is not to be construed as an assignment of any patent or patent application.

[SIGNATURE PAGE FOLLOWS]

Very truly yours,

OWL COMPUTING TECHNOLOGIES, INC.

. Campbell

By: Name: Thomas I

Title: Chairman

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Administrative Agent

Ву:_____

Name: Monica Sevila

Title: Senior Vice President

Very truly yours,
OWL COMPUTING TECHNOLOGIES, INC
By:
Name: Thomas J. Campbell Title: Chairman

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Administrative Agent

Name: Monica Sevila

Title: Senior Vice President

[Signature Page to Notice of Grant of Security Interest in Patents]

Schedule 1

Patents:

Nature Of The Identified Registration Or Applicant Registration Or Application Number	<u>IAIIICE</u>
Registered Business Intellectual	
U.S. Patent	
U.S. Patent	
Property U.S. Patent Sandia Corp. 5,703,562 12/30/1997 U.S. Patent Owl Computing Technologies, Inc. 7,675,867 3/9/2010 U.S. Patent Owl Computing Technologies, Inc. 7,941,526 5/10/2011 U.S. Patent Owl Computing Technologies, Inc. 7,992,209 8/2/2011 U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,566,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent	
U.S. Patent Sandia Corp. 5,703,562 12/30/1997 U.S. Patent Owl Computing Technologies, Inc. 7,675,867 3/9/2010 U.S. Patent Owl Computing Technologies, Inc. 7,941,526 5/10/2011 U.S. Patent Owl Computing Technologies, Inc. 7,992,209 8/2/2011 U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc.	
U.S. Patent Owl Computing Technologies, Inc. 7,675,867 3/9/2010 U.S. Patent Owl Computing Technologies, Inc. 7,941,526 5/10/2011 U.S. Patent Owl Computing Technologies, Inc. 7,992,209 8/2/2011 U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,881,222 9/9/2014 U.S. Patent Owl Computing Technologi	
U.S. Patent Owl Computing Technologies, Inc. 7,941,526 5/10/2011 U.S. Patent Owl Computing Technologies, Inc. 7,992,209 8/2/2011 U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,881,222 9/9/2014 U.S. Patent Owl Computing Technolo	• • • • • • • • • • • • • • • • • • • •
U.S. Patent Owl Computing Technologies, Inc. 7,992,209 8/2/2011 U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,876,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Techno	
U.S. Patent Owl Computing Technologies, Inc. 8,068,415 11/29/2011 U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Tech	
U.S. Patent Owl Computing Technologies, Inc. 8,139,581 3/20/2012 U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Techno	***************************************
U.S. Patent Owl Computing Technologies, Inc. 8,266,689 9/11/2012 U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,352,450 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,881,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
U.S. Patent Owl Computing Technologies, Inc. 8,353,022 1/8/2013 U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,498,206 7/30/2013 U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,516,580 8/20/2013 U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,565,237 10/22/2013 U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,646,094 2/4/2014 U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,732,453 5/20/2014 U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,776,254 7/8/2014 U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,831,222 9/9/2014 U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,887,276 11/11/2014 U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,898,227 11/25/2014 U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,938,795 1/20/2015	
U.S. Patent Owl Computing Technologies, Inc. 8,997,202 3/21/2015	***************************************
U.S. Patent Owl Computing Technologies, Inc. 9,065,878 6/23/2015	
U.S. Patent Owl Computing Technologies, Inc. 9,081,520 7/14/2015	
U.S. Patent Owl Computing Technologies, Inc. 9,088,539 7/21/2015	
U.S. Patent Owl Computing Technologies, Inc. 9,088,558 7/21/2015	
U.S. Patent Owl Computing Technologies, Inc. 9,094,401 7/28/2015	
U.S. Patent Owl Computing Technologies, Inc. 9,282,102 3/8/2016	
U.S. Patent Owl Computing Technologies, Inc. 9,305,189 4/5/2016	
U.S. Patent Owl Computing Technologies, Inc. 9,306,953 4/5/2016	~~~~~~~~~~~
U.S. Patent Owl Computing Technologies, Inc. 9,311,329 4/12/2016	
U.S. Patent Owl Computing Technologies, Inc. 9,380,023 6/28/2016	
U.S. Patent Owl Computing Technologies, Inc. 9,380,064 6/28/2016	
U.S. Patent Owl Computing Technologies, Inc. 9,436,825 9/6/2016	***********

Patent Applications:

RECORDED: 01/31/2017

Nature Of The Identified Registered Business Intellectual Property	Owner Or Applicant	Registration Or Application Number	Date Of Issuance
U.S. Patent Application	Owl Computing Technologies, Inc.	13/425,953	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	13/747,632	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	13/748,147	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	13/747,771	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	13/856,493	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	13/940,339	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/017,909	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/508,188	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/510,395	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/567,355	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/666,508	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	14/712,476	N/A
U.S. Patent Application	Owl Computing Technologies, Inc.	15/098,841	N/A
PCT Patent Application	Owl Computing Technologies, Inc.	PCTUS2016021786	N/A