# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4107509

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	FIRST LIEN SECURITY AGREEMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
ANCESTRY.COM OPERATIONS INC.	10/19/2016
IARCHIVES, INC.	10/19/2016
ANCESTRY.COM DNA, LLC	10/19/2016
ANCESTRYHEALTH.COM, LLC	10/19/2016
ADPAY, INC.	10/19/2016

## **RECEIVING PARTY DATA**

Name:	JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT
Street Address:	10 S. DEARBORN, 7TH FLOOR, MAIL CODE: IL1-1625
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60603

# **PROPERTY NUMBERS Total: 78**

Property Type	Number
Patent Number:	8375286
Patent Number:	7111144
Patent Number:	7392268
Patent Number:	8095567
Patent Number:	7249129
Patent Number:	7724981
Patent Number:	7908315
Patent Number:	7756289
Patent Number:	7734092
Patent Number:	8446652
Patent Number:	7945116
Patent Number:	8073285
Patent Number:	8249391
Patent Number:	7870139
Patent Number:	8370759
Patent Number:	8019719

PATENT REEL: 040449 FRAME: 0663

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Property Type	Number
Patent Number:	8600152
Patent Number:	8224821
Patent Number:	8825705
Patent Number:	8185557
Application Number:	12647767
Application Number:	12691571
Patent Number:	8140512
Patent Number:	9177266
Patent Number:	8786603
Patent Number:	8793574
Patent Number:	8894027
Patent Number:	8801201
Patent Number:	8356023
Patent Number:	7240062
Patent Number:	8731336
Patent Number:	8687890
Patent Number:	8949110
Patent Number:	8769438
Patent Number:	8825709
Patent Number:	8768970
Patent Number:	8837787
Patent Number:	9030502
Patent Number:	9251394
Patent Number:	9330418
Patent Number:	8600980
Application Number:	13550800
Patent Number:	8824803
Patent Number:	8938439
Application Number:	13733045
Patent Number:	9197525
Application Number:	13739569
Patent Number:	8908971
Patent Number:	9053362
Application Number:	14457769
Patent Number:	9454545
Application Number:	14841502
Application Number:	14841519
Application Number:	14841542

Property Type	Number
Patent Number:	9400942
Application Number:	15089090
Patent Number:	7957907
Patent Number:	8855935
Patent Number:	9390225
Application Number:	14029765
Patent Number:	8738297
Application Number:	14505066
PCT Number:	US2015056164
PCT Number:	US2015055579
Application Number:	14826070
PCT Number:	US2015059618
Patent Number:	7191147
Application Number:	62319299
Application Number:	62393276
Application Number:	62393849
Application Number:	14448721
PCT Number:	US2015056187
PCT Number:	IB2016053166
Application Number:	15168011
PCT Number:	IB2016054180
Application Number:	15209458
Application Number:	15203776
Application Number:	15182787

## **CORRESPONDENCE DATA**

**Fax Number:** (800)914-4240

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:** 800-713-0755

Email: Michael.Violet@wolterskluwer.com

Correspondent Name: MICHAEL VIOLET

Address Line 1: 4400 EASTON COMMONS WAY

Address Line 2: SUITE 125

Address Line 4: COLUMBUS, OHIO 43219

NAME OF SUBMITTER:	ELAINE CARRERA
SIGNATURE:	/Elaine Carrera/
DATE SIGNED:	10/21/2016

**Total Attachments: 10** 

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RECORDATION FORM COVER SHEET			
PATENTS ONLY			
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.			
Name of conveying party(ies)     Ancestry.com Operations Inc.	2. Name and address of receiving party(ies)		
2. iArchives, Inc.	Name: JPMorgan Chase Bank, N.A., as Collateral Agent		
Ancestry.com DNA, LLC     Ancestryhealth.com, LLC	Internal Address:		
5. Adpay, İnc.			
Additional name(s) of conveying party(les) attached? Yes X No  3. Nature of conveyance/Execution Date(s):	Street Address: 10 S. Dearborn, 7th Floor,		
Execution Date(s) October 19, 2016	To a. Bearboni, Furr looi,		
Assignment Merger	Mail Code: IL1-1625		
Security Agreement Change of Name	City: Chicago		
Joint Research Agreement	State: IL		
Government Interest Assignment	Country: USA Zip:60603		
Executive Order 9424, Confirmatory License	Country: USA Zip: 60603		
Other First Lien Security Agreement	Additional name(s) & address(es) attached?  Yes  No		
	document is being filed together with a new application.		
A. Patent Application No.(s) See Schedule I	B. Patent No.(s) See Schedule I		
See Schedule I	See Schedule I		
Additional numbers att	l ached? ⊠Yes		
5. Name and address to whom correspondence	6. Total number of applications and patents		
concerning document should be mailed:	involved:_76		
Name: Elaine Carrera, Legal Assistant	7. Total fee (37 CFR 1.21(h) & 3.41) \$		
Internal Address:			
	Authorized to be charged to deposit account		
Street Address: c/o Cahill Gordon & Reindel LLP	Enclosed		
80 Pine Street	None required (government interest not affecting title)		
City: New York	8. Payment Information		
State: NY Zip:10005			
Phone Number: <u>(212) 701-3365</u>	5		
Docket Number:	Deposit Account Number		
Email Address: ecarrera@cahill.com	Authorized User Name		
9. Signature: Carle October 19, 2016			
Signature	Date		
Elaine Carrera	Total number of pages including cover sheet, attachments, and documents:		
Name of Person Signing	· · · · · · · · · · · · · · · · · · ·		
Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450			

FIRST LIEN PATENT SECURITY AGREEMENT, dated as of October 19, 2016 (this "<u>Agreement</u>"), among the Grantors named on the signature page hereto (each, a "<u>Grantor</u>" and collectively, the "<u>Grantors</u>") and JPMORGAN CHASE BANK, N.A., as Collateral Agent (in such capacity and together with successors in such capacity, the "<u>Collateral Agent</u>").

Reference is made to (a) the First Lien Credit Agreement dated as of October 19, 2016 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), Ancestry.com LLC ("Holdings"), Ancestry US Holdings Inc. ("Intermediate Holdings II"), Ancestry.com Operations Inc. (the "Borrower"), the Lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, and (b) the First Lien Collateral Agreement, dated as of October 19, 2016 (as amended, supplemented or otherwise modified from time to time, the "Collateral Agreement"), among Holdings, Intermediate Holdings II, Intermediate Holdings I, the Borrower, the other grantors from time to time party thereto and the Collateral Agent. The Lenders and the Issuing Banks have agreed to extend credit to the Borrower subject to the terms and conditions set forth in the Credit Agreement. Each Grantor is the Borrower or an affiliate of the Borrower, will derive substantial benefits from the extension of credit to the Borrower pursuant to the Credit Agreement and is willing to execute and deliver this Agreement in order to induce the Lenders and the Issuing Banks to extend such credit. Accordingly, the parties hereto agree as follows:

SECTION 1. <u>Terms</u>. Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Collateral Agreement or the Credit Agreement, as applicable. The rules of construction specified in Section 1.01(b) of the Collateral Agreement also apply to this Agreement.

SECTION 2. <u>Grant of Security Interest</u>. As security for the payment or performance, as the case may be, in full of all Secured Obligations, each Grantor hereby pledges to the Collateral Agent, its successors and assigns, for the benefit of the Secured Parties and hereby grants to the Collateral Agent, its successor and assigns, for the benefit of the Secured Parties a security interest (the "<u>Security Interest</u>") in all of such Grantor's right, title and interest in, to and under the Patents listed on Schedule I attached hereto (the "<u>Patent Collateral</u>").

SECTION 3. <u>Collateral Agreement</u>. The Security Interest granted to the Collateral Agent herein is granted in furtherance, and not in limitation, of the security interests granted to the Collateral Agent pursuant to the Collateral Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the Patent Collateral are more fully set forth in the Collateral Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Collateral Agreement, the terms of the Collateral Agreement shall govern.

SECTION 4. <u>Counterparts</u>. This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original but all of which when taken together shall constitute a single contract. Delivery of an

executed signature page to this Agreement by facsimile or other electronic transmission shall be effective as delivery of a manually signed counterpart of this Agreement.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

ANCESTRY.COM OPERATIONS INC., as Grantor

By:

Name: Howard Hochhauser

Title: Chief Financial Officer, Chief Accounting Officer and Chief Operating Officer

IARCHIVES, INC., as Grantor

By:

Name: Moward Hochhauser

Title: Chief Financial Officer and President

ANCESTRY.COMDNA, LLG, as Grantor

By:

Name: Howard Hochhauser

Title: Chief Financial Officer and Vice President

ANCESTRYHEALTH.COM, LLC, as Grantor

By:

Name: Howard Hochhauser

Title: Chief Financial Officer and Vice President

ADPAY, INC, as Grantor

By:

Name: Howard Hochhauser Title: Chief Financial Officer JPMORGAN CHASE BANK, N.A., as Collateral

Agent,

By:

Name: Bru
Title: Exec

Bruce S. Borden Executive Director

SIGNATURE PAGE TO FIRST LIEN PATENT SECURITY AGREEMENT

# Schedule I U.S. PATENT REGISTRATIONS AND APPLICATIONS

	Owner	Patent Title	App./Patent No.
1.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR DISPLAYING STATISTICAL INFORMATION ON A WEB PAGE	8375286
2.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR STORING AND RETRIEVING DATA IN A WEB SERVER ENVIRONMENT	7111144
3.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR PARTITIONING DATA ON MULTIPLE SERVERS	7392268
4.	Ancestry.com Operations Inc.	PROVIDING ALTERNATIVES WITHIN A FAMILY TREE SYSTEMS AND METHODS	8095567
5.	Ancestry.com Operations Inc.	CORRELATING GENEALOGY RECORDS SYSTEMS AND METHODS	7249129
6.	Ancestry.com Operations Inc.	ADAPTIVE CONTRAST CONTROL SYSTEMS AND METHODS	7724981
7.	Ancestry.com Operations Inc.	LOCAL INSTALLATION OF REMOTE SOFTWARE SYSTEMS AND METHODS	7908315
8.	Ancestry.com Operations Inc.	IMAGE WATERMARKING SYSTEMS AND METHODS	7756289
9.	Ancestry.com Operations Inc.	MULTIPLE IMAGE INPUT FOR OPTICAL CHARACTER RECOGNITION PROCESSING SYSTEMS AND METHODS	7734092
10.	Ancestry.com Operations Inc.	IMAGE QUALITY MONITORING AND TAGGING AT SCAN TIME	8446652
11.	Ancestry.com Operations Inc.	COMPUTER-ASSISTED IMAGE CROPPING FOR BOOK SCANS	7945116
12.	Ancestry.com Operations Inc.	USER INTERFACE METHODS AND SYSTEMS FOR IMAGE BRIGHTNESS AND CONTRAST	8073285
13.	Ancestry.com Operations Inc.	USER INTERFACE METHOD FOR SKEW CORRECTION	8249391
14.	Ancestry.com Operations Inc.	CORRELATING GENEALOGY RECORDS SYSTEMS AND METHODS	7870139
15.	Ancestry.com Operations Inc.	VISUALIZING, CREATING AND EDITING BLENDING MODES METHODS AND SYSTEMS	8370759
16.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR PARTITIONING DATA ON MULTIPLE SERVERS	8019719
17.	Ancestry.com Operations Inc.	DEVICES, SYSTEMS AND METHODS FOR TRANSCRIPTION SUGGESTIONS AND COMPLETIONS	8600152

	Owner	Patent Title	App./Patent No.
18.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR THE ORGANIZED DISTRIBUTION OF RELATED DATA	8224821
19.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR COMMUNICATION AMONG COLLABORATING USERS	8825705
20.	Ancestry.com Operations Inc.	POSITIONING OF NON- CONSTRAINED AMOUNT OF DATA IN SEMBLANCE OF A TREE	8185557
21.	Ancestry.com Operations Inc.	INTERACTIVE MODIFICATION OF SPACING CONSTRAINTS OF GENEALOGICAL CHARTS WITH LIVE FEEDBACK	12647767
22.	Ancestry.com Operations Inc.	AUTOMATIC PEDIGREE CORRECTIONS	12691571
23.	Ancestry.com Operations Inc.	CONSOLIDATED INFORMATION RETRIEVAL RESULTS	8140512
24.	Ancestry.com Operations Inc.	METHODS AND SYSTEMS FOR IMPLEMENTING ANCESTRAL RELATIONSHIP GRAPHICAL INTERFACE	9177266
25.	Ancestry.com Operations Inc.	ANCESTOR-TO-ANCESTOR RELATIONSHIP LINKING METHODS AND SYSTEMS	8786603
26.	Ancestry.com Operations Inc.	METHODS AND SYSTEMS FOR IDENTIFICATION AND TRANSCRIPTION OF INDIVIDUAL ANCESTRAL RECORDS AND FAMILY	8793574
27.	Ancestry.com Operations Inc.	MULTI-ANGLE AND MULTI- POSITION REPROGRAPHIC COPY STAND	8894027
28.	Ancestry.com Operations Inc.	DUAL SIDED MIRROR BOOK IMAGING DEVICES AND METHODS	8801201
29.	Ancestry.com Operations Inc.	COLLABORATIVE SYSTEMS AND METHODS FOR CONSTRUCTING REPRESENTATIONS OF DATA	8356023
30.	iArchives, Inc.	SYSTEM AND METHOD FOR CREATING A SEARCHABLE WORD INDEX OF A SCANNED DOCUMENT INCLUDING MULTIPLE INTERPRETATIONS OF A WORD AT A GIVEN DOCUMENT LOCATION	7240062
31.	Ancestry.com Operations Inc.	MULTI-PERPENDICULAR LINE- BASED DESKEW WITH AFFINE AND PERSPECTIVE DISTORTION CORRECTION	8731336
32.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR CAPTURING RELEVANT INFORMATION FROM A PRINTED DOCUMENT	8687890
33.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR EXTRACTING CATEGORIES OF DATA	8949110

	Owner	Patent Title	App./Patent No.
34.	Ancestry.com Operations Inc.	METHODS AND SYSTEM FOR DISPLAYING PEDIGREE CHARTS ON A TOUCH DEVICE	8769438
35.	Ancestry.com Operations Inc.	METHODS AND SYSTEMS FOR DISPLAYING BLENDED FAMILY GENEALOGICAL INFORMATION	8825709
36.	Ancestry.com Operations Inc.	PROVIDING ALTERNATIVES WITHIN A FAMILY TREE SYSTEMS AND METHODS	8768970
37.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR ASSOCIATING A PHOTO WITH A DATA STRUCTURE NODE	8837787
38.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR ORGANIZING DOCUMENTS	9030502
39.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR ESTIMATING/DETERMINING THE DATE OF A PHOTO	9251394
40.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR CREATING A FAMILY TREE DATA STRUCTURE	9330418
41.	Ancestry.com Operations Inc.	CONSOLIDATED INFORMATION RETRIEVAL RESULTS	8600980
42.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR THE ORGANIZED DISTRIBUTION OF RELATED DATA	13550800
43.	Ancestry.com Operations Inc.	AUTOMATED FIELD POSITION LINKING OF INDEXED DATA TO DIGITAL IMAGES	8824803
44.	Ancestry.com Operations Inc.	COLLABORATIVE SYSTEMS AND METHODS FOR CONSTRUCTING REPRESENTATIONS OF DATA	8938439
45.	Ancestry.com Operations Inc.	VISUALIZING, CREATING AND EDITING BLENDING MODES METHODS AND SYSTEMS	13733045
46.	Ancestry.com Operations Inc.	SYSTEMS AND METHODS FOR DISPLAYING STATISTICAL INFORMATION ON A WEB PAGE	9197525
47.	Ancestry.com Operations Inc.	GENEALOGY INVESTIGATION AND DOCUMENTATION SYSTEMS AND METHODS	13739569
48.	Ancestry.com Operations Inc.	DEVICES, SYSTEMS AND METHODS FOR TRANSCRIPTION SUGGESTIONS AND COMPLETIONS	8908971
49.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR CAPTURING RELEVANT INFORMATION FROM A PRINTED DOCUMENT	9053362
50.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR IDENTIFYING RELATIONSHIPS IN A DATA GRAPH	14457769
51.	Ancestry.com Operations Inc.	AUTOMATED FIELD POSITION LINKING OF INDEXED DATA TO DIGITAL IMAGES	9454545

	Owner	Patent Title	App./Patent No.
52.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR TRANSCRIBING HISTORICAL RECORDS INTO DIGITIZED TEXT	14841502
53.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR TRANSCRIBING HANDWRITTEN RECORDS USING WORD GROUPINGS BASED ON FEATURE VECTORS	14841519
54.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR TRANSCRIBING HANDWRITTEN RECORDS USING WORD GROUPING WITH ASSIGNED CENTROIDS	14841542
55.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR ESTIMATING/DETERMINING THE DATE OF A PHOTO	9400942
56.	Ancestry.com Operations Inc.	SYSTEM AND METHOD FOR CREATING A FAMILY TREE DATA STRUCTURE	15089090
57.	Ancestry.com DNA, LLC	METHOD FOR MOLECULAR GENEALOGICAL RESEARCH	7957907
58.	Ancestry.com DNA, LLC	METHOD AND SYSTEM FOR DISPLAYING GENETIC AND GENEALOGICAL DATA	8855935
59.	Ancestry.com DNA, LLC	FAMILY NETWORKS	9390225
60.	Ancestry.com DNA, LLC	IDENTIFYING ANCESTRAL RELATIONSHIPS USING A CONTINUOUS STREAM OF INPUT	14029765
61.	Ancestry.com DNA, LLC	METHOD FOR MOLECULAR GENEALOGICAL RESEARCH	8738297
62.	Ancestry.com DNA, LLC	METHOD AND SYSTEM FOR DISPLAYING GENETIC AND GENEALOGICAL DATA	14505066
63.	Ancestry.com DNA, LLC	HAPLOTYPE PHASING MODELS	PCTUS2015056164
64.	Ancestry.com DNA, LLC	REDUCING ERROR IN PREDICTED GENETIC RELATIONSHIPS	PCTUS2015055579
65.	Ancestry.com DNA, LLC	METHOD AND SYSTEM FOR DISPLAYING GENETIC AND GENEALOGICAL DATA	14826070
66.	AncestryHealth.Com, LLC	PREDICTING HEALTH OUTCOMES	PCTUS2015059618
67.	AdPay, Inc.	FACILITATING THE SALE OF AD ITEMS VIA THE INTERNET	7191147
68.	Ancestry.com Operations Inc.		62319299
69.	Ancestry.com Operations Inc.		62393276
70.	Ancestry.com Operations Inc.		62393849
71.	Ancestry.com DNA, LLC		14448721

	Owner	Patent Title	App./Patent No.
72.	Ancestry.com DNA, LLC		PCTUS2015056187
73.	Ancestry.com DNA, LLC		PCTIB2016053166
74.	Ancestry.com DNA, LLC		15168011
75.	Ancestry.com DNA, LLC		PCTIB2016054180
76.	Ancestry.com DNA, LLC		15209458
77.	Ancestry.com DNA, LLC		15203776
78.	Ancestry.com DNA, LLC		15182787

**RECORDED: 10/21/2016**