PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	NUNC PRO TUNC ASSIGNMENT
EFFECTIVE DATE:	10/01/2018

CONVEYING PARTY DATA

Name	Execution Date
ARMANTA, INC.	10/03/2018

RECEIVING PARTY DATA

Name:	International Business Machines Corporation
Street Address:	New Orchard Road
City:	Armonk
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 5

Property Type	Number		
Patent Number:	8239416		
Patent Number:	8239417		
Patent Number:	8516003		
Patent Number:	8655920		
Patent Number:	9087067		

CORRESPONDENCE DATA

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EDELL, SHAPIRO & FINNAN, LLC **Correspondent Name:** 9801 WASHINGTONIAN BOULEVARD Address Line 1:

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NAME OF SUBMITTER:	STUART B. SHAPIRO
SIGNATURE:	/Stuart B. Shapiro/
DATE SIGNED:	10/09/2018

Total Attachments: 2

PATENT REEL: 047102 FRAME: 0929

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> PATENT REEL: 047102 FRAME: 0930

PATENT ASSIGNMENT

WHEREAS, Armanta, Inc., a Delaware corporation (referred to as "Company"), whose full post office address is 50 Division Street, Suite 501, Somerville, New Jersey 08876, has ownership of the patent applications listed on Schedule A hereto, all patents which may issue therefrom, and all divisionals, reissues, substitutions, continuations, re-examinations and extensions thereof which may be pending in or granted by any patent office or forum throughout the world (referred to as the "Patents") and whereas Company owns all inventions disclosed and claimed in the Patents ("Inventions");

WHEREAS, International Business Machines Corporation, a New York corporation whose full post office address is New Orchard Road, Armonk, New York 10504, United States of America (referred to as "IBM"), desires to acquire the entire right, title and interest in and to the Inventions and Patents; and

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Company hereby transfers and assigns to IBM free and clear of all liens or other encumbrances, and IBM hereby accepts the transfer and assignment of, the entire right, title, and interest of Company in and to the Patents and Inventions, and all rights of priority resulting from the filing of the Patents; and Company hereby authorizes and requests the Commissioner of Patents and any other relevant authority to issue all patents related to the Patents to IBM as assignee of Company's entire right, title and interest therein.

Company also hereby transfers and assigns to IBM, and IBM hereby accepts the transfer and assignment of, any foreign rights to the Inventions and Patents, in all countries of the world, including the right to file applications, prosecute, and obtain patents under any treaty including the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and of the European Patent Convention. Company agrees that this executed document is recordable evidence of such transfer and assignment and further agrees to perform at IBM's expense, upon reasonable notice, such lawful acts and to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such foreign patent rights.

Upon the written request of IBM, Company hereby further agrees that Company will sign all lawful papers, execute all divisional, continuation, reissue, re-examination, and substitute applications, make all lawful oaths, and provide reasonable assistance to aid IBM, its successors, assigns and nominees to facilitate the prosecution and maintenance of the Patents in all countries of the world.

This transfer and assignment is effective as of October 1, 2018.

Armanta Inc

IN WITNESS WHEREOF, the parties hereto have executed this Patent Assignment by its respective duly authorized officer in their respective corporate names.

	1 22 3 3 4 4 5 6 5 8 5 6 6 9 . E 32 2 2 9	Corporation Corporation
Ву:	Peter Chirlian	By: Lisa Regan
Title:	Chief Executive Officer	Title: Director, Research and Intellectual Property Finance
Date:	October 3, 2018	Date:
		Page 1 of 2

International Rusiness Machines

PATENT REEL: 047102 FRAME: 0931

ARMANTA, INC. TO INTERNATIONAL BUSINESS MACHINES CORPORATION SCHEDULE A

Patent Number	Issue Date	Application No.	Filing Date	Title	Country	Owner
8239416	8/7/2012	12/130925	5/30/2008	System, Method, and Computer Program Product for Modeling Changes to Large Scale Datasets	US	Armanta, Inc.
8239417	8/7/2012	12/188126	8/7/2008	System, Method, and Computer Program Product for Accessing and Manipulating Remote Data Sets	US	Armanta, Inc.
8516003	8/20/2013	13/567825	8/6/2012	System for Manipulating Data Using a User Entity Cache	US	Armanta, Inc.
8655920	2/18/2014	13/567841	8/6/2012	Report Updating Based on a Restructured Report Slice	us	Armanta, Inc.
9087067	7/21/2015	13/970336	8/19/2013	System, Method, and Computer Program Product for Modeling Changes to Large Scale Datasets	US	Armanta, Inc.

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