505871510 01/18/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5918338

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VLADIMIR MANDIC	10/27/2010

RECEIVING PARTY DATA

Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15499668

CORRESPONDENCE DATA

Fax Number: (415)386-4623

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:
 510-295-9328

 Email:
 lana@st-ip.com

Correspondent Name: STANIFORD TOMITA LLP

Address Line 1: P.O. BOX 591838

Address Line 4: SAN FRANCISCO, CALIFORNIA 94159

ATTORNEY DOCKET NUMBER:	EMC-16-0121 (EM1.143U)
NAME OF SUBMITTER:	LAWRENCE M. LAU
SIGNATURE:	/LAWRENCE M. LAU/
DATE SIGNED:	01/18/2020

Total Attachments: 7

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PATENT/Joint Assignment EMC Docket No.: EMC-16-0121 Atty Docket: EM1.143U

ASSIGNMENT

WHEREAS, we, Shelesh Chopra, Vladimir Mandic and John Rokicki have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled INTELLIGENT SNAPSHOT CATALOGING (Application), the specification of which:

[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[X]	was filed on April 27, 2017 as U.S. Application No. 15/499,668;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including

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PATENT/Joint Assignment EMC Docket No.: EMC-16-0121 Atty Docket: EM1.143U

the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND, we hereby authorize our attorneys, EMC IP Holding Company LLC, to insert here in parentheses (________) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

C-8: KEA Affirmation - 57458BR: Distinguished Engineer for Mandic, Vladimir,

EMC KEY EMPLOYEE AGREEMENT AFFIRMATION

Click on the link in this email. It will allow you to review EMC's Key Employee Agreement ("KEA") and other important documents. You should review these documents carefully before continuing.

http://www.emc.com/hr/pdf/KEA.pdf

PLEASE COMPLETE ALL INFORMATION BELOW

Candidate's Last Name: Mandic

Candidate's First Name: Vladimir

Candidate's Full Name: Vladimir Mandic

I acknowledge and agree that an electronic signature by me (checking Yes) is as valid as if I had signed the documents referred to below by hand and submitted the originals to EMC.

Date of Affirmation 27-Dec-2010

By checking Yes, I acknowledge and agree that I was given adequate time to review the attached documents and ask questions.

Date of Affirmation 27-Dec-2010

By checking Yes, I understand that I was given the opportunity to review the terms of the KEA with a legal advisor before signing (affirming).

Date of Affirmation 27-Dec-2010

By checking Yes, I have read, understand and agree I am legally bound by EMC's KEA (including but not limited to the Arbitration provision).

Date of Affirmation 27-Dec-2010

POLICY AFFIRMATION

Yes

https://trm128.brassring.com/jetstream/500/presentation/template/asp/Candidate/FPTAS/EIN.T 3/23/2018

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By checking Yes, I have read and understand EMC's Anti-Harassment and Insider Trading Policies, and agree to abide by such policies and all other Company policies that are issued and amended from time to time by the Company in its discretion.

Date of Affirmation 27-Dec-2010

I understand that EMC policies can be viewed on the company's Intranet Channel EMC and/or other venues as communicated by the company.

Date of Affirmation 27-Dec-2010

COMPLETE IF APPLICABLE

SALES TRAINING

By checking Yes, I have read, Ye understand and agree I am legally bound by EMC's Sales Training Reimbursement Agreement.

Date of Affirmation 27-Dec-2010

CUSTOMER SERVICE TRAINING

By checking Yes, I have read, Yes understand and agree I am legally bound by EMC's Customer Service Training Reimbursement Agreement.

Date of Affirmation 27-Dec-2010

RELOCATION OR IMMIGRATION

By checking Yes, I have read, Yes understand and agree I am legally bound by EMC's Relocation or Immigration Reimbursement.

Date of Affirmation 27-Dec-2010

EMC Privacy Statement

Date added

27-Dec-2010

vlado@rijeka.com

Ciose

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Key Employee Agreement

In view of the highly competitive nature of the business of EMC Corporation (together with its subsidiaries, the "Company"), the need of the Company to maintain its competitive position through the protection of its goodwill, trade secrets and confidential and proprietary information, and in consideration for being provided with access to certain trade secrets and/or confidential and proprietary information in conjunction with your employment with the Company, you agree as follows:

1. Non-Competition

(a) For as long as you are employed by the Company, you shall devote your full time and efforts to the Company and shall not participate, directly or indirectly, in any capacity, in any business or activity that is in competition with the Company.

(b) This section shall apply to you only if, as of the effective date of your termination, you are in a position at the Company that is at the director level or higher. For purposes of this Agreement, "director level" includes all individuals at the Company that report directly to a vice president and/or that are identified on the Company's systems as director level. For the twelve month period following the effective date of your termination, for any reason, from the Company ("the non-competition period"), you agree that you will not, directly or indirectly, provide any services, whether as an employee, consultant, independent contractor, member of a board of directors, or in any other capacity, to any entity that is developing, producing, marketing, soliciting or selling products or services competitive with products or services being developed, produced, marketed, solicited or sold by the Company as of the effective date of your termination. During the non-competition period, you further agree that you will not take any ownership interest of greater than 1%, whether directly or indirectly, in any such entity. Ownership interest includes, but is not limited to, stock options and restricted stock (vested or unvested).

(c) EMC shall not seek to enforce section 1(b) in the state of California.

2. Customer, Partner, and Vendor Confidentiality

You recognize that it is essential to the Company's success that all non-public customer, partner and vendor information be deemed to be confidential and be properly treated as a confidential trade secret. Therefore, you agree not to use or disclose any such customer, partner or vendor information except as may be necessary in the normal conduct of the Company's business for the specific customer, partner or vendor, and at the end of your employment with the Company, you will return to the Company any materials containing such information.

3. Confidentiality of Company Materials

You agree that both during your employment with the Company and thereafter you will not use for your own benefit, divulge or disclose to anyone except to persons within the Company whose positions require them to know it, any information not already lawfully available to the public concerning the Company ("Confidential Information"). Confidential Information also includes, without limitation, any technical data, design, pattern, formula, computer program, source code, object code, algorithm, subroutine, manual, product specification, or plan for a new, revised or existing product; any business, marketing, financial, pricing or other salesrelated data; information regarding the present or future business or products of the Company; any information regarding employees including contact information, employee lists, organizational charts, information concerning particular employee skill sets, technical and business knowledge, and compensation; and any information concerning the particular needs of clients or customers and their buying patterns, price sensitivities, key decision makers (and the contact information for such individuals), product needs, product specifications, request for proposals and the responses thereto.

4. All Developments the Property of the Company

All confidential, proprietary or other trade secret information and all other discoveries, inventions, processes, methods and improvements, conceived, developed, or otherwise made by you, alone or with others, and in any way relating to the Company's present or planned business or products, whether or not patentable or subject to copyright protection and whether or not reduced to tangible form or reduced to practice during the period of your employment with the Company ("Developments") shall be the sole property of the Company. You agree to disclose all Developments promptly, fully and in writing to the Company promptly after development of the same, and at any time upon request. You agree to, and hereby do assign to the Company all your right, title and interest throughout the world in and to all Developments. You agree that all Developments shall constitute "Works for Hire" (as such are defined under the U.S. Copyright Laws) and hereby assign to the Company all copyrights, patents and other proprietary rights you may have in any Developments without any obligation on the part of the Company to pay royalties or any other consideration to you in respect of such Developments. You agree to assist the Company (without charge, but at no cost to you) to obtain and maintain for itself such rights.

5. Non-Solicitation

During your employment and for the twelve month period following the effective date of your termination, for any reason, from the Company, you agree that you will not, either on your own behalf or on behalf of any person or entity, directly or indirectly: (a) solicit, or attempt to solicit, any person who is an employee, consultant or contractor of the Company to terminate, alter or modify such person's employment relationship with the Company; or (b) solicit, or attempt to solicit, the business of any person or entity that is either a customer or a potential customer of the Company, to which you, directly or indirectly, attempted to or did, sell or provide any product or service on behalf of EMC, or about which you obtained any Confidential Information, during the one year period prior to the effective date of your termination. You acknowledge and agree that this Non-Solicitation provision is reasonable and intended to protect the Company's trade secrets and its confidential and proprietary information.

6. Return of Company Materials

At the time of your termination, for any reason, from the Company, you agree to return immediately to the Company all Company materials, which include but are not limited to all documents in any tangible or electronic form and all property, in your possession, custody or control relating to work done for the Company or relating to the processes and materials of the Company, as well as all materials concerning past, present and future or potential EMC clients, customers, products and/or services. Such materials include, but are not limited to, customer and/or vendor lists, customer and/or vendor prospect material, financial projections, pricing or other sales-related data, rate structures, all technical materials, presentation materials, and software owned or developed by the Company for any purpose in any form. You also agree to return to the Company all materials provided by customers of the Company and all teaching materials provided by the Company. You also agree to attend an exit interview if so requested by the Company, and to sign an acknowledgment of your obligations under this Agreement.

7. Miscellaneous

(a) This Agreement contains the entire agreement between you and the Company with respect to the subject matter hereof, superseding any previous oral or written agreements with the Company or any officer or representative thereof. In the event of any inconsistency between this Agreement and any other contract between you and the Company, the provisions of this Agreement shall prevail.

Revised-4/1/06

Sales Training Reimbursement

You agree to reimburse the Company the costs of training if you choose to leave the Company's employ within the first two years of employment. If you voluntarily terminate employment within the first twelve months, you will be responsible for reimbursing the Company the total training costs of \$6,000.

If you voluntarily terminate employment during the period of the thirteenth month to the twenty-fourth month, you will be responsible for a \$3,000 reimbursement.

If you are involuntarily terminated by the Company, this paragraph on training reimbursement would not apply. This training reimbursement paragraph would not apply in cases of severe personal hardship causing voluntary termination of an employee.

Initials/Date _____

Customer Service Training Reimbursement

You agree to reimburse the Company the costs of training if you choose to leave the Company's employ within the first two years of employment. If you voluntarily terminate employment within the first twelve months, you will be responsible for reimbursing the Company the total training costs of \$6,000. If you voluntarily terminate employment during the period of the thirteenth month to the twenty-fourth month, you will be responsible for a \$4,000 reimbursement. If you are involuntarily terminated by the Company, this paragraph on training reimbursement would not apply. This training reimbursement paragraph would not apply in cases of severe personal hardship causing voluntary termination of an employee.

Initials/Date _____

Relocation or Immigration Reimbursement

You agree to reimburse the Company the costs of any relocation or immigration fees if you choose to leave the Company's employ within the first two years of employment. If you voluntarily terminate employment within the first year, you will be responsible for the reimbursement of the total costs. If you voluntarily terminate employment during the period of the thirteenth month to the twenty-fourth month, you will be responsible for one-half of the total costs. Immigration payback period begins on the effective approval date of the visa petition. If you are involuntarily terminated by the Company, this paragraph would not apply.

initials/Date	
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Revised-4/1/06

- (b) Your obligations under this Agreement shall survive the termination of your employment with the Company regardless of the manner of or reasons for such termination, and regardless of whether such termination constitutes a breach of any other agreement you may have with the Company. Your obligations under this Agreement shall be binding upon your heirs, assigns, executors, administrators and representatives, and the provisions of this Agreement shall inure to the benefit of and be binding on the successors and assigns of the Company.
- (c) You agree that the terms of this Agreement are reasonable and properly required for the adequate protection of the Company's legitimate business interests. You agree that in the event that any of the provisions of this Agreement are determined by a court of competent jurisdiction to be contrary to any applicable statute, law, rule, or policy or for any reason unenforceable as written, then such court may modify any of such provisions so as to permit enforcement thereof to the maximum extent permissible as thus modified. Further, you agree that any finding by a court of competent jurisdiction that any provision of this Agreement is contrary to any applicable statute, law, rule or policy or for any reason unenforceable as written shall have no effect upon any other provisions and all other provisions shall remain in full force and effect.
- (d) You agree that any breach of this Agreement will cause immediate and irreparable harm to the Company not compensable by monetary damages and that the Company will be entitled to obtain injunctive relief, in addition to all other relief in any court of competent jurisdiction, to enforce the terms of this Agreement, without having to prove or show any actual damage to the Company.
- (e) No failure by the Company to insist upon strict compliance with any of the terms, covenants, or conditions hereof, and no delay or omission by the Company in exercising any right under this Agreement, will operate as a waiver of such terms, covenants, conditions or rights. A waiver or consent given by the Company on any one occasion is effective only in that instance and will not be construed as a bar to or walver of any right on any other occasion.
- (f) You acknowledge that you have received and reviewed the attached Anti-Harassment and Insider Trading policies, and that you will abide by such policies and all other Company policies that are issued and amended from time to time by the Company in its discretion.
- (g) You agree that this Agreement may be amended or modified only by written agreement of yourself and either the President and Chief Executive Officer or the General Counsel.
- (h) You agree that if the Company commences an action against you, by way of claim or counterclaim and including declaratory claims, in which it is preliminarily or finally determined that you have violated any provision of this Agreement, you will reimburse the Company for all its costs, expenses and reasonable attorneys' fees incurred in such action. You agree that the appropriate venue for any action seeking declaratory or injunctive relief for violation of this Agreement is in the state and/or federal courts located in Massachusetts, and you consent to personal jurisdiction in such courts.
- (i) You agree that tuition costs for which the Company has reimbursed you and tuition advancements which may have already been paid to you will be recovered in full if you voluntarily terminate employment within one year of completion of the respective course(s).
- () This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to the doctrine of conflicts of law. This Agreement is executed under seal.
- (k) You agree that the Company and its assigns may use your name, your photograph and other reproductions of you during or after your employment in connection with the Company's business. You acknowledge that the Company will maintain data, including in an electronic form, relating to

your employment and you agree that such data may be transferred, including across state and country borders, to any Company location for the Company's business use.

- (f) This Agreement does not create any obligation on the Company or any other person or entity to continue your employment. Your employment is at will, meaning either the Company or you may terminate your employment at any time and for any reason or no reason at all.
- (m) You understand and acknowledge that this Agreement is applicable even if you change positions within the Company. The terms of this Agreement shall continue to apply with full force and effect in the event that you:
 (a) are promoted, demoted, transferred, assigned or otherwise assume one or more positions or functions other than, or in addition to, your position or functions as of the date you originally sign this Agreement, regardless of changes in job title, duties, management or compensation; or (b) are transferred or assigned to, or otherwise work for, any affiliate, subsidiary or other division or business unit of the Company.

Arbitration

You agree that binding arbitration shall be the sole ond exclusive remedy for resolving any individual Legal Dispute (defined below) initiated either by the Company or by you arising out of or relating to your employment by EMC Corporation and/or its affiliates ("EMC" or the "Company"). "Legal Dispute" includes but is not limited to any cloim relating to (1) compensation, (ii) the termination of employment, (iii) discrimination, horossment or retallation including under Title VII of the Civil Rights Act, the Age Discrimination in Employment Act, the Older Workers Benefits Protection Act, and any other federal, state, or local laws, (iv) severance, (v) reinstalement, or (vi) any other employment-related legal claim, and attorneys' fees and costs relating to any of the above; provided, however, that you or the Company may file and pursue litigation in a court proceeding for temporary, preliminary and permanent injunctive relief, or for declaratory judgment. Any damage claims related to the subject matter of such litigation will, however, be submitted to arbitration. Any such arbitration shall be conducted pursuant to the Company's arbitration policy, as amended from time to time, including but not limited to procedures regarding selection of arbitrators and payment of fees and expenses.

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MC Corporation	
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Revised-4/1/06