#### 504457159 07/14/2017

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
AMNON NAAMAD	07/12/2017
ADNAN SAHIN	07/13/2017

### **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:	15649925

#### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	108893.01 / 130-174-JCG
NAME OF SUBMITTER:	JOHN C GORECKI REG NO 38471
SIGNATURE:	/John C Gorecki/
DATE SIGNED:	07/14/2017

### **Total Attachments: 4**

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**PATENT** REEL: 043006 FRAME: 0292 504457159

## ASSIGNMENT

WHEREAS, we, Adnan Sahin and Amnon Naamad, 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

# Cache Hit Ratio Simulation Using A Partial Data Set

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	[X]	is being executed on even da States Patent Office;	te herewith and is abo	out to be filed in the United
		was filed onas	U.S. Application No	·
	[]	was patented under U.S. Pate	nt No.	On

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), a Delaware limited liability company 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. I 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 me had this assignment and sale not been made: I 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. I 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:

PATENT Assignment Attorney Docket No.: 130-174-JCG

EMC Ref. No.: 108893.01

AND, I hereby further agree for me and my 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 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, I 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.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

PATENT Assignment Attorney Docket No.: 130-174-JCG EMC Ref. No.: 108893.01

Date: 7/12/2017	Amna James Inventor's Signature
Print full name of inventor:	Amnon Naamad
Residence:	84 Beals St., Unit 2
1403641447	Brookline, MA 02446
Citizenship:	USA
Mailing Address:	84 Beals St., Unit 2
-	Brookline, MA 02446
On this 124 day of	
	VICKY S. MARKANTONES Notes Public Commission of Markanto My Commission Express March 19, 2021

PATENT Assignment Attorney Docket No.: 130-174-JCG EMC Ref. No.: 108893.01

Date: 7/13/17	- John S.
	Inventor's Signature
Print full name of inventor:	Adnan Sahin
Residence:	140 Pine Grove St.
	Needham, MA 02494
Citizenship:	USA
Mailing Address:	140 Pine Grove St.
	Needham, MA 02494
above-named <u>Adnan Sahin</u> known to employee identification card; [] di the person whose name is subscribed	
	VICKY S. MARKANTONIS  Notary PADIS  Commission of Managements  My Commission Expires  March 19, 2021