503061053 11/13/2014 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3107655

SUBMISSION TYPE:		NEW ASSI	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNME	ASSIGNMENT			
CONVEYING PARTY	DATA					
		Name	Name		Execution Date	
ARASH FARHOODFA	R				07/15/2011	
RECEIVING PARTY D	ΑΤΑ					
Name:	CORTI	CORTINA SYSTEMS, INC.				
Street Address:	1376 B	1376 BORDEAUX DRIVE				
City:	SUNNY	SUNNYVALE				
State/Country:	CALIFO	CALIFORNIA				
Postal Code:	94089	94089				
PROPERTY NUMBER	S Total: 1					
Property Type		N	umber			
Application Number: 1454		4540907				
CORRESPONDENCE						
		216)696-8731				
		the state of the state.				
Correspondence will using a fax number. i						
using a fax number, i	f providea					
	f providea	; if that is unsuc	ccessful, it will be se			
<i>using a fax number, i</i> Phone: Email: Correspondent Name	f provideo :	r if that is unsuc 216-696-8730 EPAS@thepaten CORTINA SYSTE	tattorneys.com EMS, INC.	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1:	f providea :	r if that is unsuc 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU	ccessful, it will be se tattorneys.com	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2:	f providea :	if that is unsud 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU KEY TOWER	tattorneys.com EMS, INC. JARE, 57TH FLOOR	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1:	f providea :	r if that is unsuc 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU	tattorneys.com EMS, INC. JARE, 57TH FLOOR	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4:	f providea :	t <i>if that is unsuc</i> 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU KEY TOWER CLEVELAND, OF	tattorneys.com EMS, INC. JARE, 57TH FLOOR	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4:	f providea : NUMBER:	t if that is unsuc 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU (EY TOWER CLEVELAND, OF 0067CORU	tattorneys.com EMS, INC. JARE, 57TH FLOOR	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER	f providea : NUMBER:	t if that is unsu 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU (EY TOWER CLEVELAND, OF 0067CORU THOMAS E	tattorneys.com EMS, INC. JARE, 57TH FLOOR HIO 44114 JSCON2/BIGGP106L	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2:	f providea : NUMBER:	t if that is unsu 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU (EY TOWER CLEVELAND, OF 0067CORU THOMAS E	tattorneys.com EMS, INC. JARE, 57TH FLOOR HIO 44114 JSCON2/BIGGP106L E. WATSON E. WATSON/	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE:	f providea : NUMBER:	r if that is unsu 216-696-8730 EPAS@thepaten CORTINA SYSTE 27 PUBLIC SQU (EY TOWER CLEVELAND, OF 0067CORU THOMAS E /THOMAS	tattorneys.com EMS, INC. JARE, 57TH FLOOR HIO 44114 JSCON2/BIGGP106L E. WATSON E. WATSON/	ent via US I		
using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE: DATE SIGNED:	f providea : : UMBER: :	r if that is unsu 216-696-8730 EPAS@thepatem CORTINA SYSTE 27 PUBLIC SQU (EY TOWER CLEVELAND, OF 0067CORU THOMAS E /THOMAS 11/13/2014	tattorneys.com EMS, INC. JARE, 57TH FLOOR HIO 44114 JSCON2/BIGGP106L E. WATSON E. WATSON/	ent via US I		

ASSIGNMENT

WHEREAS, I, ARASH FARHOODFAR, citizen of Canada, residing at 87 Penfield Drive, Kanata, Ontario, K2K 1L9, Canada, (hereinafter referred to as the "Assignor"), have made certain inventions and discoveries disclosed in United States Patent Application entitled TIME VARYING DATA PERMUTATION APPARATUS AND METHODS, to be filed in the United States Patent Office (hereinafter referred to as the "Application");

AND WHEREAS, CORTINA SYSTEMS, INC., whose full post office address is 1376 Bordeaux Drive, Sunnyvale, California, 94089, U.S.A. (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions and discoveries, and in and to the Application inclusive of any and all priority rights derived therefrom for any and all countries in the world, and in and to any and all Letters Patent issuing in any and all countries in the world, to be granted for said inventions and discoveries based on said Application or on patent applications filed in any country claiming priority from said Application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I the Assignor, do hereby sell, assign, transfer, and set over unto the Assignee, its successors and assigns, my entire right, title, and interest in and to the inventions and discoveries disclosed in the Application, and in and to the Application and any continuations or divisions thereof and all priority rights derived therefrom, and in and to any and all patent applications and any continuations or divisions thereof filed in any country claiming priority from the Application, and in and to all Letters Patent which may be granted upon the Application or upon patent applications filed in any and all countries in the world including the United States of America, claiming priority from the Application, and in and to any and all reissues, substitutions, or prolongations thereof; the same to be held and enjoyed by the Assignee for its own use and behoof, and for the use and behoof of its successors and assigns, to the full end of the term or terms for which said Letters Patent, or reissues, substitutions, or prolongations thereof may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made;

AND I hereby agree that, upon request, and without further consideration, but at the expense of the Assignee, I will communicate to the Assignee or its representatives or nominees any facts known to me respecting said inventions and discoveries and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths and generally aid the Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said inventions and discoveries in all countries, and I further agree to execute any and all further papers which may be necessary or desirable to vest or perfect the title of the Assignee, its successors and assigns, in and to said inventions and discoveries, and in and to any and all Letters

PATENT REEL: 034168 FRAME: 0184

Patent or reissues thereof which may be granted upon application in any and all countries in the world.

AND I hereby authorize and request any official whose duty it is to issue patents to issue each and every Letters Patent to be granted upon the aforesaid Application in any and all countries, and each and every reissue of said Letters Patent, to the Assignee, its successors and assigns, as the assignee of our entire right, title and interest therein, in accordance with this assignment.

THIS assignment made effective immediately.

1) day of July SIGNED this

, 2011.

ARASH FARHOODFAR

WITNESS

RECORDED: 11/13/2014

PATENT REEL: 034168 FRAME: 0185