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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY	DATA			
		Name	Execution Date	
SCOTT EDWARD BLASI			05/16/2016	
RECEIVING PARTY I				
Name:		VANTIV, LLC		
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State/Country:	OHIO	ОНЮ		
Postal Code:	45249	45249		
PROPERTY NUMBERS Total: 1 Property Type		Number		
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ASSIGNMENT

WHEREAS, I, Scott Edward Blasi, a citizen of the United States, residing in Littleton, Colorado, (hereinafter referred to as "ASSIGNOR"), has invented or co-invented TECHNOLOGIES FOR TOKEN-BASED AUTHENTICATION AND AUTHORIZATION OF DISTRIBUTED COMPUTING RESOURCES (herein the "Invention") for which a U.S. patent application has been or will be filed; and

WHEREAS, VANTIV, LLC, whose mailing address is 8500 Governors Hill Drive, Cincinnati, Ohio 45249, a limited liability company duly organized and existing under the laws of Delaware (hereinafter referred to as "ASSIGNEE"), is desirous of owning all right, title, and interest in said Invention and patent rights therefor throughout the world.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, said ASSIGNOR, hereby sells, assigns, and transfers and set over, unto said ASSIGNEE, all right, title, and interest, in the United States and throughout the world, in said Invention and all patents, patent rights, patent applications, and inventor's certificates for said Invention, including without limitation said application for patent in the United States and all provisional, nonprovisionals, divisions, renewals, continuations, and continuations-in-part thereof, all patents of the United States which may be granted thereon and all reissues, reexaminations and extensions thereof, all applications for industrial property protection, including, without limitation, all applications of patents, utility models, and designs which may hereafter be filed for said Invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable, all forms of industrial property protection, including, without limitation, patents, utility models and designs which may be granted for said Invention in any country or countries foreign to the United State and all extensions, renewals, reexaminations and reissues thereof, and all right to sue for infringement or past infringement thereof.

ASSIGNOR HEREBY authorizes and requests the Director of the United States Patent and Trademark Office, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of the instrument.

ASSIGNOR HEREBY grants the firm of ULMER & BERNE LLP the power to insert in this Assignment any further identification or information which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

ASSIGNOR HEREBY covenants and agrees that he has full right to convey the entire interest herein assigned, and that he has not executed, and not execute, any agreement in conflict herewith.

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PATENT REEL: 046708 FRAME: 0263

ASSIGNOR HEREBY further covenants and agrees that he will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to him respecting said Invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue, reexamination and foreign applications, make all rightful oaths, and generally do everything possible to aid said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said Invention in all countries.

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Daned: 5/16/16

Scott Edward Blasi