504631553 11/07/2017 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4678271

SUBMISSION TYPE:		NEW ASSIGNMENT				
NATURE OF CONVEYANCE:		ASSIGNMENT				
CONVEYING PARTY	DATA					
			Name	Execution Date		
BRIAN PIEL				11/01/2017		
RECEIVING PARTY	DATA					
Name:	MASTI	MASTERCARD INTERNATIONAL INCORPORATED				
Street Address:	2000 F	2000 PURCHASE STREET				
City:	PURC	PURCHASE				
State/Country:	NEW 1	NEW YORK				
Postal Code:	10577	10577				
PROPERTY NUMBE			Number			
Property Typ		1500				
Application Number	•	1580	5985			
CORRESPONDENCI	E DATA					
		(314)	621-2307			
			e-mail address first; if that is unsuc nat is unsuccessful, it will be sent v			
Phone:	•	•	21-5070			
Email: USpa		USpa	atents@armstrongteasdale.com			
Correspondent Name: ARM			STRONG TEASDALE LLP			
Address Line 1: 7700			FORSYTH BOULEVARD			
Address Line 2: SUIT		E 1800				
Address Line 4:		ST. L	OUIS, MISSOURI 63105			
ATTORNEY DOCKET NUMBER:			21652-00882			
ATTORNEY DOCKET			DANIEL M. FITZGERALD			
	R:			/Daniel M. Fitzgerald/		
ATTORNEY DOCKET NAME OF SUBMITTE SIGNATURE:	R:		/Daniel M. Fitzgerald/			
NAME OF SUBMITTE	R:		/Daniel M. Fitzgerald/ 11/07/2017			
NAME OF SUBMITTE SIGNATURE:	R:		, ,			
NAME OF SUBMITTE SIGNATURE: DATE SIGNED: Total Attachments: 2 source=P04483-US-U	ΓIL_Execut		, ,			

WORLDWIDE ASSIGNMENT

WHEREAS, I,

BRIAN PIEL, a citizen of the UNITED STATES, having a residence address at 425 Lexbridge, Ballwin, Missouri USA 63011

(hereinafter "Assignor"), have made an inve	ention entitled "SYSTEMS AN	ND METHODS FOR
ENHANCING ONLINE USER AUTHEN	TICATION USING A PERS	SONAL CLOUD
PLATFORM" as set forth and described in	U.S. Application No. 15/805,	<u>985</u> , filed
11/07/2017 ; International Application No.	, filed	; United
States Provisional Application No.	, filed	; and

WHEREAS, **MASTERCARD INTERNATIONAL INCORPORATED**, having its principal place of business at **2000 Purchase Street**, **Purchase**, **NY 10577**, hereinafter referred to as Assignee, is desirous of acquiring the whole right, title and interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights.

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, reissue, reexamination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of defending the validity of or protecting title to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee and its successors in interest without further or other compensation than that above set forth.

MC Ref. P04483-US-UTIL AT Ref. 21652-00882

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment. Assignor further covenants not to challenge, or assist or participate in any third party challenge to, the assigned inventions, or any patent application or patent thereon, whether by litigation, post grant review, inter partes review, covered business method review, reexamination, or otherwise.

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignce, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignce.

The undersigned hereby authorize the attorneys of ARMSTRONG TEASDALE LLP the power to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

IN WITNESS WHEREOF, I, the said ASSIGNOR have executed this Assignment this day of November , 2017.

<u>Xik Jou</u> Witness Signature <u>Sterru Loch</u> Witness Name

Agreed and accepted this ^{1st} day of Nov , 2017.

MASTERCARD INTERNATIONAL INCORPORATED

170m By:

Title: Steven P. Klocinski - Senior Vice President & Senior IP Counsel

PATENT REEL: 044057 FRAME: 0013

RECORDED: 11/07/2017

-2-