

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5174929

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	GIESECKE & DEVRIENT GMBH	07/07/2017
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	GIESECKE+DEVRIENT MOBILE SECURITY GMBH	
<b>Street Address:</b>	PRINZREGENTENSTRASSE 159	
<b>City:</b>	MUNICH	
<b>State/Country:</b>	GERMANY	
<b>Postal Code:</b>	81677	
<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	16152512
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(801)328-1707	
<i>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.</i>		
<b>Phone:</b>	8015339800	
<b>Email:</b>	afennemore@wnlaw.com	
<b>Correspondent Name:</b>	WORKMAN NYDEGGER	
<b>Address Line 1:</b>	60 EAST SOUTH TEMPLE	
<b>Address Line 2:</b>	SUITE 1000	
<b>Address Line 4:</b>	SALT LAKE CITY, UTAH 84111	
<b>ATTORNEY DOCKET NUMBER:</b>	19838.298.1	
<b>NAME OF SUBMITTER:</b>	JUSTIN J. CASSELL	
<b>SIGNATURE:</b>	/Justin J. Cassell/	
<b>DATE SIGNED:</b>	10/05/2018	
<b>Total Attachments: 6</b>		
source=19838-0 2017-07-18 Assignment#page1.tif		
source=19838-0 2017-07-18 Assignment#page2.tif		
source=19838-0 2017-07-18 Assignment#page3.tif		
source=19838-0 2017-07-18 Assignment#page4.tif		
source=19838-0 2017-07-18 Assignment#page5.tif		



WHEN RECORDED RETURN TO:

PATENT APPLICATION  
Docket Nos.: 19838.0

Workman Nydegger  
60 East South Temple, Suite 1000  
Salt Lake City, UT 84111

**ASSIGNMENT**

WHEREAS, Assignor, **Giesecke & Devrient GmbH**, a corporation of the Country of Germany, having a principal place of business at Prinzregentenstrasse 159, 81677 Munich, Germany, is the owner of record of the pending United States and foreign patent applications and issued patents listed in the attached Schedule A.

WHEREAS, Assignee, **Giesecke+Devrient Mobile Security GmbH**, a corporation of the Country of Germany, having a principal place of business at Prinzregentenstrasse 159, 81677 Munich, Germany, desires to secure the entire right, title and interest in the listed patent applications and issued patents.

THEREFORE, in exchange for good and valuable consideration paid to us by Assignee, the receipt and sufficiency of which we hereby acknowledge, ASSIGNOR HEREBY ASSIGNS TO ASSIGNEE:

The entire right, title and interest in the invention in the above-identified United States patent application and in all divisions, continuations and continuations-in-part of the application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications which may be filed in countries foreign to the United States, and in all patents issuing thereon in the United States and foreign countries.

The right to file foreign patent applications on said invention in its own name, wherever such right may be legally exercised, including the right to claim the benefits of the International convention for such applications.

Assignor hereby authorizes and requests the United States Commissioner of Patents and Trademarks and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents to issue any and all patents on said invention to the Assignee as the owner of the entire interest, for the sole use of Assignee, its successors, assigns and legal representatives.

Assignor hereby agrees, without further consideration and without expense, to sign all lawful papers and to perform all other lawful acts which Assignee may request of Assignor to make this Assignment fully effective, including, by way of example but not of limitation, the following:

Prompt execution of all original, divisional, substitute, reissue and other United States and foreign patent applications on the invention, and all lawful documents requested by Assignee to further the prosecution of any of such patent applications.

Cooperation to the best of Assignor's ability in the execution of all lawful documents, the production of evidence, nullification, reissue, extension or infringement proceedings involving the invention.

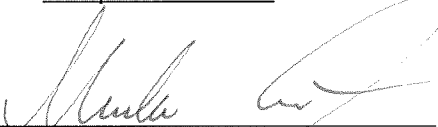
DATED July 7, 2017.

**Giesecke & Devrient GmbH**



By: ppa. Dr. Reinhard Warmke

Title: Group Vice President



By: ppa. Manfred Ertl

Title: Group Vice President

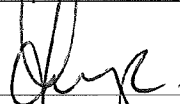
ACCEPTED July 7, 2017.

**Giesecke+Devrient Mobile Security GmbH**



By: ppa. Dr. Tagscherer

Title: Group Vice President



By: ppa. Lange

Title: Group Vice President

**SCHEDULE A**

Country	Application No.	Filing Date	Title
US	10/575964	May 2, 2007	Method for Processing a Cashless Payment Transaction
US	11/547279	May 23, 2007	Data Support With Tan-Generator And Display
US	12/515205	May 15, 2009	DATA MEMORY DEVICE WITH AUXILIARY FUNCTION
US	12/995731	December 2, 2010	METHOD FOR PERSONALIZING A SAFETY ELEMENT OF A MOBILE TERMINAL DEVICE
US	13/322634	November 28, 2011	METHOD FOR PRODUCING PORTABLE DATA CARRIERS
US	13/511209	May 22, 2012	METHOD FOR PRODUCING A FILM COMPOSITE MATERIAL AND A CARD BODY
US	13/515306	June 12, 2012	FASTENING AND ELECTROCONDUCTIVE CONNECTING OF A CHIP MODULE TO A CHIP CARD
US	13/522630	July 17, 2012	METHOD FOR CARRYING OUT A TRANSACTION BETWEEN A PORTABLE DATA CARRIER AND A TERMINAL
US	13/579449	August 16, 2012	HIGHLY FLEXIBLE FOIL COMPOSITE MATERIAL AND ITS USE IN CARD BODIES
US	13/579635	August 17, 2012	COEXTRUDED FOIL COMPOSITE MATERIAL AND ITS USE IN CARD BODIES
US	13/697613	November 13, 2012	PERSONALIZATION DATA PROVIDING UNIT
US	13/810749	March 20, 2013	OPTICALLY VARIABLE SECURITY ELEMENT WITH TILT IMAGE
US	13/810921	January 18, 2013	SECURITY THREAD FOR DATA CARRIERS, DATA CARRIERS, AND PRODUCTION OF SAID DATA CARRIERS
US	14/172528	February 4, 2014	Coextruded Foil Composite Material and Its Use in Card Bodies
US	14/172551	February 4, 2014	Highly Flexible Foil Composite Material and Its Use in Card Bodies
US	14/233469	January 17, 2014	Method for Securing a Transaction
US	14/354254	April 25, 2014	Determining a Division Remainder and Ascertaining Prime Number Candidates for a Cryptographic Application
US	14/364222	June 10, 2014	Method for Reading an Identification Document in a Contactless Manner
US	14/364563	June 11, 2014	Method for Communicating with an Application on a Portable Data Storage Medium, and Such a Portable Data Storage Medium

US	14/374073	July 23, 2014	METHOD FOR PRODUCING A DATA CARRIER THAT PREVENTS MECHANICAL STRAINS BETWEEN CHIP AND DATA CARRIER BODY
US	14/386439	September 19, 2014	Methods and Devices for Accessing a Wireless Local Area Network
US	14/386466	September 19, 2014	Methods and Devices for OTA Management of Mobile Stations
US	14/421336	February 12, 2015	Method for Installing Security-Relevant Applications in a Security Element of a Terminal
US	14/424310	February 26, 2015	Method and System for Updating a Firmware of a Security Module
US	14/426927	March 9, 2015	Method for Creating a Derived Entity of an Original Data Carrier
US	14/431012	March 25, 2015	Side-Channel-Protected Masking
US	14/435490	April 14, 2015	Loading and Disbursement of an Electronic Amount of Money
US	14/442927	May 14, 2015	METHOD AND SYSTEM FOR INSTALLING AN APPLICATION IN A SECURITY ELEMENT
US	14/652737	June 16, 2015	Reputation System and Method
US	14/654280	June 19, 2015	Method and System for Securely Operating a Portable Data Carrier Utilizing Random Wait States
US	14/706613	May 7, 2015	TRANSFER METHOD FOR MANUFACTURING CONDUCTOR STRUCTURES BY MEANS OF NANO-INKS
US	14/706629	May 7, 2015	TRANSFER METHOD FOR MANUFACTURING CONDUCTOR STRUCTURES BY MEANS OF NANO-INKS
US	14/758464	June 29, 2015	METHOD FOR LOADING AN APPLICATION CONSISTING OF A PLURALITY OF COMPONENTS INTO A DEVICE CONSISTING OF A PLURALITY OF COMPONENTS
US	14/759022	July 2, 2015	Relieved Card-Shaped Data Carrier
US	14/766201	August 6, 2015	Method and Apparatus for Checking a Circuit
US	14/769497	August 21, 2015	METHOD AND END DEVICE FOR SECURELY INPUTTING ACCESS CODE
US	14/784099	October 13, 2015	Mobile Station Comprising Security Resources with Different Security Levels
US	14/813476	July 30, 2015	MOBILE DEVICE MANAGEMENT
US	14/884008	October 15, 2015	Coextruded Foil Composite Material and Its Use in Card Bodies
US	14/888503	November 2, 2015	Method and Apparatus for Transmission of Visually Encoded Data
US	14/888507	November 2, 2015	Method and System for Supplying Visually Encoded Image Data
US	14/891108	November 13, 2015	Method for Producing Portable Data Carriers

US	14/897785	December 11, 2015	Production Method for Portable Data Carriers
US	14/899256	December 17, 2015	Operation of a Security Element with the Set of Operating Parameters Matched to the Selected Use Profile
US	14/907336	January 25, 2016	External Secure Unit
US	14/909718	February 2, 2016	Method for Operating a Security Element
US	14/910992	February 8, 2016	Methods and Devices for Performing a Mobile Network Switch
US	14/911001	February 8, 2016	Methods and Devices for Performing a Mobile Network Switch
US	14/911087	February 9, 2016	Methods and Devices for Performing a Mobile Network Switch
US	14/913753	February 23, 2016	Method and Apparatus for Transmitting Information
US	15/022648	March 17, 2016	2FA AUTHENTICATION WITH QR ON HMD
US	15/023802	March 22, 2016	Method for Payment
US	15/034028	May 3, 2016	IC Module for Different Connection Technologies
US	15/038945	May 24, 2016	Manufacturing Method for Portable Data Carriers
US	15/104213	June 13, 2016	Methods and Devices for Providing a Secure Element with a Subscription Profile
US	15/104761	June 18, 2016	Methods and Apparatuses for Managing Subscriptions on a Security Element
US	15/104781	June 15, 2016	Methods and Apparatuses for Supplying a Subscription for Communication Over a Mobile Radio Network
US	15/105124	June 16, 2016	Methods and Apparatuses for Activating a Subscription for Communication Over a Mobile Radio Network
US	15/111895	July 15, 2016	Method for Authorizing a Transaction
US	15/120879	August 23, 2016	Subscription Management
US	15/120887	August 23, 2016	Transaction Authorization Method
US	15/147062	May 5, 2016	LAMINATING BODY
US	15/303364	October 11, 2016	Method for Executing a Code Sequence on a Security Module
US	15/303428	October 11, 2016	Method and Device for Operating a Mobile Terminal in a Mobile Communication Network
US	15/312255	November 18, 2016	Method for Producing a Film Which Serves as a Carrier for Electronic Components
US	15/312269	November 18, 2016	Subscription Management
US	15/312726	November 21, 2016	Data Carrier Production Method and Processing Device
US	15/316267	December 5, 2016	METHOD FOR ENHANCED SECURITY OF COMPUTATIONAL DEVICE WITH MULTIPLE CORES
US	15/316984	December 7, 2016	Methods and Devices for Conducting Payment Transactions

US	15/324328	January 6, 2017	Method and Secure Element for Using a Network
US	15/325382	January 10, 2017	Method for Reading an Identity Document
US	15/501302	February 2, 2017	Communication System with PKI Key Pair for Mobile Terminal
US	15/505297	February 21, 2017	Data Carrier Comprising a Partial Piece
US	15/513768	March 23, 2017	Method and Devices for Providing a Subscription Profile on a Mobile Terminal
US	15/513781	March 23, 2017	Transaction Process
US	15/514199	March 24, 2017	METHOD AND SECURITY MODULE FOR ADAPTATION OF A REFERENCE VALUE FOR GENERATION OF A BIT STREAM
US	15/514211	March 24, 2017	Method and Security Module for Receiving Two Signals
US	15/515312	March 29, 2017	METHOD AND SYSTEM FOR PERSONALIZING A SECURITY ELEMENT OF A TERMINAL
US	15/519304	April 14, 2017	Secure Element Having a Light Emitting Diode
US	15/519309	April 14, 2017	Data Storage Medium with Two-Dimensional Light Source
US	15/519600	April 17, 2017	Card Body for a Data Carrier and Inlay for a Partial Card Body
US	15/525219	May 8, 2017	Method for Verifying the Validity of a Ticket; Mobile Device
US	15/525224	May 8, 2017	Hardened White Box Implementation
US	15/525235	May 8, 2017	Hardened White Box Implementation 2
US	15/525239	May 8, 2017	Hardened White Box Implementation 1
US	15/525432	May 9, 2017	Method for Testing and Hardening Software Applications
US	15/525717	May 10, 2017	Method and Server for Providing Transaction Keys
US	15/536247	June 15, 2017	Introducing an Identity into a Secure Element
US	15/536926	June 16, 2017	Method and Device for Securely Storing Data and for Accessing Said Data
US	15/537585	June 19, 2017	Method for Operating a Computer Unit, and Such a Computer Unit
US	15/537597	June 19, 2017	Method for a Pseudonymous Key-Agreement Between a Portable Data Carrier and a Terminal
US	15/537608	June 19, 2017	Method for Providing a Security-Critical Software Application on a Computer Unit