

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA ALEXANDRIA DIVISION**

SECURE NFC PTY. LTD.,

Plaintiff,

v.

MASTERCARD INCORPORATED,

Defendant.

Case No. 1:23-cv-1717

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMAND**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Secure NFC PTY. LTD. (“NFC”), by its undersigned counsel, alleges as follows for its Complaint against Defendant Mastercard Incorporated (“Mastercard”).

**I. THE NATURE OF THIS ACTION**

1. NFC brings this action against Mastercard pursuant to 35 U.S.C. §101 et. seq. and §§271, 281, 283, 284, & 285 inclusive, for infringement of one or more claims of U.S. Patent 9,374,712 (“the ‘712 patent”). Defendant has been made aware of the ‘712 patent but has continued to infringe and has refused to cease its infringing actions, thereby necessitating this lawsuit.

**II. THE PARTIES**

2. Plaintiff NFC is an Australian corporation.

3. Defendant Mastercard is a Delaware Corporation with a headquarters at 2000 Purchase Street Purchase, NY. Defendant Mastercard uses and develops the Masterpass system.

**III. JURISDICTION AND VENUE**

4. This is an action for patent infringement arising under the laws of the United States, 35 U.S.C. §271 et seq.

5. This Court has subject matter jurisdiction over this action pursuant to 35 U.S.C. §§271, 281 and 28 U.S.C. §§1331 and 1338(a), federal question.

6. This Court has personal jurisdiction over Defendant Mastercard under at least Virginia Code § 8.01-328.1 because Defendant is located within this judicial district and has a regular and established place of business in this judicial district at least at 4250 Fairfax Drive,

Suite 1100 Arlington, VA 22203.

7. Venue is proper in this Court as against Defendant Mastercard under 28 U.S.C. § 1400(b) based on information set forth herein, namely Mastercard's acts of infringement and maintenance of at least one regular and established place of business within this District including at least at 4250 Fairfax Drive, Suite 1100 Arlington, VA 22203.

#### **IV. BACKGROUND AND GENERAL ALLEGATIONS**

8. Constantin M. Nicolau filed a patent application for his invention which provides A method for providing secure element partitions for an NFC enabled device for a plurality of card issuers. His inventive method and system was granted the '712 patent.

9. Defendant Mastercard provides distribution of the Masterpass application on mobile devices using a system and method that infringes the '712 patent.

10. The Masterpass service infringes at least claims 1 - 12 of the '712 Patent.

11. On June 21<sup>st</sup>, 2016, United States Patent No. 9,374,712, entitled "Multi-issuer secure element partition architecture for NFC enabled devices" was duly and legally issued by the United States Patent and Trademark Office ("USPTO"). The '712 Patent claims patent-eligible subject matter and is valid and enforceable. NFC is the exclusive owner by assignment of all rights, title, and interest in the '712 Patent, including the right to bring this suit for injunction and damages, and including the right to sue and recover all past, present, and future damages for infringement of the '712 Patent. Defendant is not licensed to the '712 Patent, either expressly or implicitly, nor do they enjoy or benefit from any rights in or to the '712 patent whatsoever. A true and correct copy of the '712 Patent is attached hereto as **Exhibit A**.

12. The '712 Patent is referred to herein as the "Patent-in-Suit." The patent-in-suit is presumed valid under 35 U.S.C. § 282.

#### **V. THE PATENT**

13. The claims of the '712 patent are directed to a "A method for providing secure element partitions for an NFC enabled device for a plurality of card issuers" Claim 1 of the '712 patent recites:

1. A method for providing secure element partitions for an NFC enabled device for a plurality of card issuers, the method comprising:

creating in a secure element of the NFC enabled device a plurality of secure element partitions;

allocating said secure element partitions of the secure element to the respective card issuers;

providing in the secure element for a plurality of the secure element partitions respectively one or more application security domains;

wherein the secure element partitions include respectively an access rule application master having access rules and control data of the respective card

issuer and a unique smart-card security table of random keys generated by the respective card issuer to protect that card issuer's NFC cards, and

the one or more application security domains corresponding to a respective secure element partition include respectively an application, an access rule application client having a set of access rules and control data and an application register containing identities of the card issuers that share the application with the card issuer to whom the respective secure element partition is allocated.

## **VI. INFRINGEMENT**

14. Defendant engineers and provides Masterpass. Masterpass infringes claims of the '712 patent.

15. Defendant has, under 35 U.S.C. §271(a), directly infringed, and continues to directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '712 patent, by making, using, distributing, selling, offering for sale and/or importing into the United States Defendant's Accused Products.

16. Defendant also indirectly infringes the '712 Patent by actively inducing the direct infringement by third parties under 35 U.S.C. §271(b). Defendant has knowingly and intentionally actively induced others to directly infringe at least one claim of the '712 patent by providing software through which its customers practice the claimed methods and by providing infringing systems used by its customers, including Masterpass users throughout the United States. Defendant continues to induce infringement of the '712 patent. Defendant has contributorily infringed and continue to contributory infringe under 35 U.S.C. §271(c) because, with knowledge of the '712 patent, they supply a material part of an infringing method and/or system, where the material part is not a staple article of commerce and is incapable of substantial

non-infringing use. Defendant contributes to its customers' infringement because, with knowledge of the '712 patent, Defendant supplies the technology that allows its customers to infringe the patent, including allowing Defendant's customers to practice the method claims.

17. Plaintiff has conducted a detailed analysis, establishing and confirming that Defendant's Accused Products directly infringe, contribute to and when used according to Defendant's instructions for operation, indirectly infringe claims of the '712 Patent.

18. Attached as **Exhibit B** to the Complaint is a claim chart demonstrating the correspondence of the operation of the accused products with elements of an exemplary claim of the '712 patent.

19. Defendant and its customers have continued infringement.

20. The accused products satisfy the elements of the asserted claims, shown below is an example of infringing features from Masterpass:

**1. A method for providing secure element partitions for an NFC enabled device for a plurality of card issuers, the method comprising:**



**creating in a secure element of the NFC enabled device a plurality of secure element partitions;**

*ConnectedMerchantsRequest.WalletId*

**Description:** Partition name MasterPass uses to identify the wallet. This is received in the pairing initialization redirect.

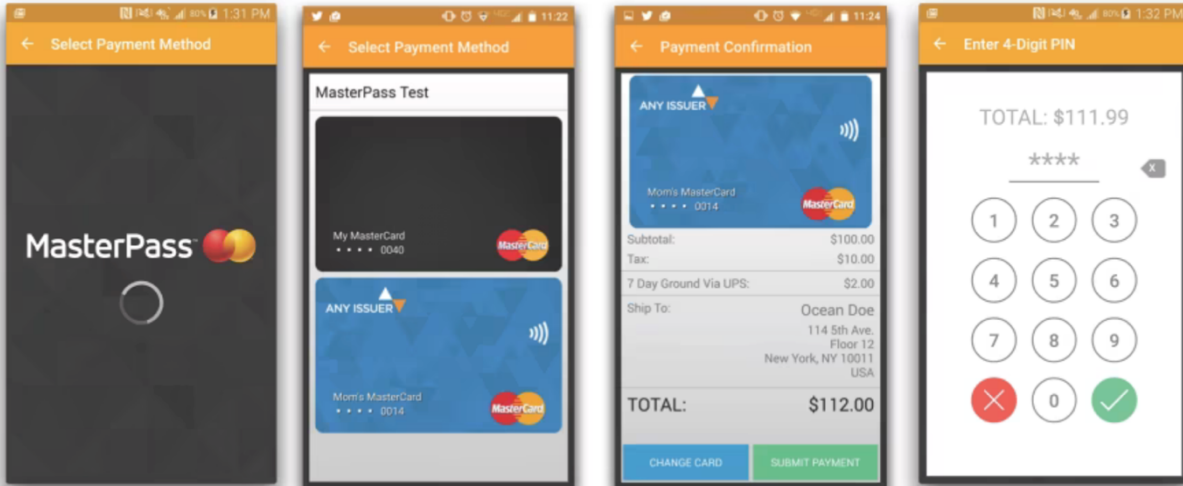
**Details:** Required

**Example:** a4d6x3165n12thw1gpy151hw2jqjmy4s5

**allocating said secure element partitions of the secure element to the respective card issuers;**

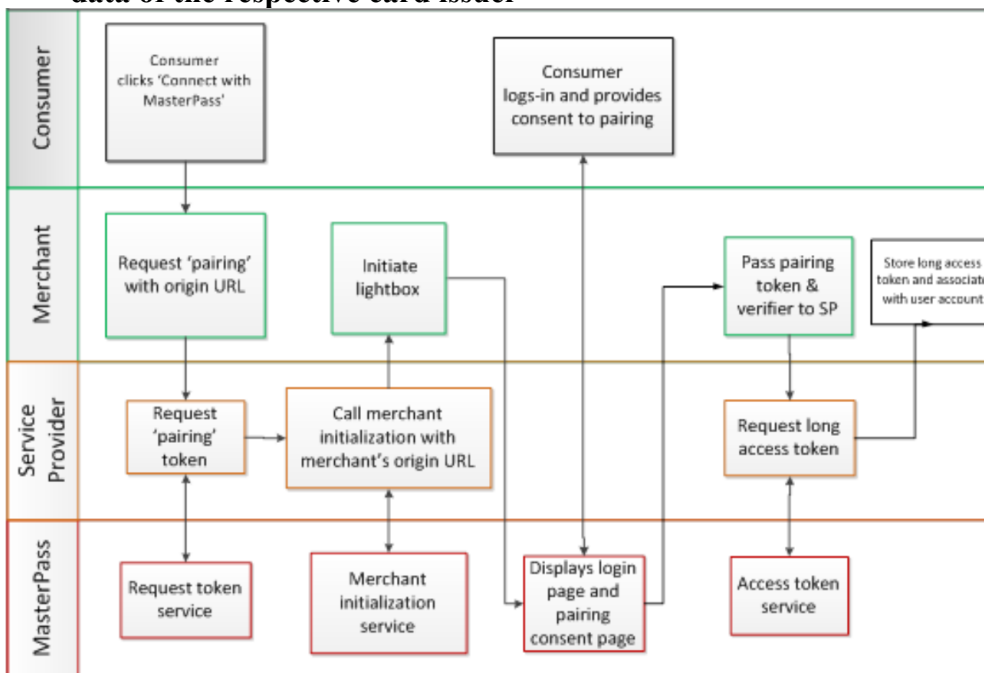
**Mobile Checkout (Merchant App-to-Wallet App)**

Merchant App-to-Wallet App Mobile Checkout feature is currently applicable to U.S. merchants with Android smartphone applications only.



**providing in the secure element for a plurality of the secure element partitions respectively one or more application security domains;**

**wherein the secure element partitions include respectively an access rule application master having access rules and control data of the respective card issuer**



**and a unique smart-card security table of random keys generated by the respective card issuer to protect that card issuer's NFC cards, and**

tokenization.cryptogram.	The unpredictable number. EMV quality <b>random</b> number generated by the merchant, service provider, or, if null, by Mastercard. If the value is non null, then merchants must check it against the unpredictable number they generated when initializing this transaction and ensure they are the same. If they are different, the merchant must fail the transaction. Format: Base64 encoded 4 Byte Binary number.	String	Y
unpredictableNumber			

**the one or more application security domains corresponding to a respective secure element partition include respectively an application, an access rule application client having a set of access rules and control data and an application register containing identities of the card issuers that share the application with the card issuer to whom the respective secure element partition is allocated.**

**Universal Cardholder Authentication Field (UCAF) Data**

- In this case, the EMV cryptogram—and a subset of the EMV data—are carried in the Universal Cardholder Authentication Field (UCAF) in data element (DE) 48, subelement 43 in transaction authorization messages. Refer to the **DSRP—Acquirer Implementation Guide**, provided on the MDES Information Center in the Publications section of Mastercard Connect ([www.mastercardconnect.com](http://www.mastercardconnect.com)) for full details.
- The UCAF cryptogram is Base64 encoded and is up to 32 characters in length and contains a subset of the EMV data including **the application cryptogram, application transaction counter (ATC), unpredictable number, and cryptogram version.**
- Most merchant/service provider and acquirer systems are configured today to support UCAF data transmission.

21. Defendant has infringed, and continues to infringe, at least claim 1-12 of the '712 Patent, under 35 U.S.C. § 271(a)(b) and/or (c), by (a) making, using, distributing, offering to sell, selling and/or importing into the United States, systems and methods that infringe the asserted claims and by performing the claimed methods in the United States, (b) by inducing others to use the accused products and/or sell the accused products and to perform the claimed methods in the United States, (c) by contributing to the infringement of others and by selling components of the patented systems and (b & c) by selling a product for performing the patented process. Defendant continues to manufacture, use, offer to sell, sell and import accused products. The accused products are also being used to infringe. Defendant continues to sell accused products inducing and contributing to infringement by others and also continues to perform infringing activity by performing the claimed method in the United States.

22. By engaging in accused activity including making, using, distributing, offering to

sell, selling and importing accused products in the United States. Defendant continues to infringe claims of the '712 Patent.

23. Upon information and belief, Defendant has indirectly infringed one or more of the claims of the '712 Patent under 35 USC §271(b):

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

24. Upon information and belief, Defendant has indirectly infringed one or more of the claims of the '712 Patent under 35 USC §271(c):

(c) Whoever offers to sell or sells within the United States or imports into the United States . . . or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer.

25. By providing accused products, and other components and supplies, which are combined to form an infringing product and/which infringe the claims of the '712 Patent, thus contributing to the infringement of the '712 Patent.

26. Defendant has been willfully infringing the '712 Patent since at least as early as they became aware of the '712 Patent. Upon information and belief, Defendant has no good faith defense to Plaintiff's infringement allegations and have refused to cease selling products or to engage in further attempts to reach a business resolution. Instead, Defendant has intentionally continued their knowing infringement.

27. As a result of Defendant's infringement of the '712 Patent, Plaintiff has suffered and will continue to suffer damages in an amount not yet determined, of at least a reasonable royalty.

## **VII. COUNT I -- INFRINGEMENT OF U.S. PATENT NO. 9,374,712**

28. The allegations of each of the paragraphs above are hereby re-alleged and incorporated herein by reference.

29. Defendant Mastercard has infringed, and continues to directly infringe, at least claims 1- 12 of the '712 Patent, under 35 U.S.C. § 271(a), by making, using, offering to sell, selling and importing the Accused Products in the United States.



30. Upon information and belief, Defendant Mastercard has indirectly infringed one or more of the claims of the '712 patents under 35 USC §271(b) by providing accused products, with instructions, which are used to practice the patented methods according to the instructions and thereby inducing others to use the products in an infringing manner.

31. Upon information and belief, Defendant Mastercard has indirectly infringed one or more of the claims of the '712 patent under 35 USC §271(c) by providing accused products, and components and supplies, which are used as components of infringing systems which infringe the claims of the '712 patent, thus contributing to the infringement of the '712 patent.

32. Defendant does not have a license or authority to use the '712 Patent.

33. As a result of Mastercard's infringement of the '712 Patent, Plaintiff has suffered and will continue to suffer damages in an amount not yet determined, of at least a reasonable royalty.

#### **VIII. PRAYER FOR RELIEF**

- A. For a judgment declaring that Mastercard has infringed the '712 Patent.
- B. For a judgment declaring that Mastercard's infringement of the '712 Patent has been willful;
- C. For a grant of a permanent injunction pursuant to 35 U.S.C. §283, enjoining the Defendant from further acts of infringement;
- D. For a judgment awarding Plaintiff compensatory damages as a result of Defendant's infringement sufficient to reasonably and entirely compensate Plaintiff for infringement of the '712 Patent in an amount to be determined at trial;
- E. For a judgment and order awarding a compulsory ongoing royalty;
- F. For a judgment declaring that Defendant's infringement was willful and for enhancement of damages in accordance with 35 U.S.C. 284;
- G. For a judgment declaring that this case is exceptional and awarding Plaintiff its expenses, costs and attorneys' fees in accordance with 35 U.S.C. § 285 and Rule 54(d) of the Federal Rules of Civil Procedure;
- H. For a judgment awarding Plaintiff prejudgment interest pursuant to 35 U.S.C.
- I. §284, and a further award of post judgment interest, pursuant to 28 U.S.C. §1961,



continuing until such judgment is paid.

J. For a judgment awarding Plaintiff enhanced damages under 35 U.S.C. §284; and

K. For such other relief to which Plaintiff is entitled under the applicable United States laws and regulations or as this Court deems just and proper.

**IX. DEMAND FOR JURY TRIAL**

Pursuant to the Federal Rules of Civil Procedure Rule 38(b), Plaintiff hereby demands trial by jury as to all claims in this litigation.

**VERIFICATION**

I, Constantin M.A. Nicolau, owner of Plaintiff, hereby affirm and verify that the facts set forth in the foregoing Complaint for Patent Infringement are true and correct to the best of my knowledge, information and belief.

Dated: December 14<sup>th</sup>, 2023



Respectfully submitted,

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