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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

CORTEX MCP, INC., Plaintiff, v. VISA INC., Defendant.	CASE NO.: 5:23-CV-05720 **DEFENDANT VISA INC.'S INVALIDITY CONTENTIONS**

Pursuant to Patent Local Rules 3-3 and 3-4 and the Court's Patent Scheduling Order (ECF No. 73), Defendant Visa Inc. ("Defendant" or "Visa") hereby provides these Invalidity Contentions:

Asserted Patents	Asserted Claims
9,251,531 ("'531 Patent")	Claims 1, 2, 4, 5, 6, 7, 8, 9, 10, 14, 15, 17, 18, 20, 21, 23, 24, 25, 27, and 28
9,954,854 ("'854 Patent")	Claims 1, 2, 3, 8, 9, 10, 15, 16, and 17
10,749,859 ("'859 Patent")	Claims 1, 2, 4, 5, 9, 10, 12, 13, 18, 19, 20, and 21
11,329,973 ("'973 Patent")	Claims 1, 2, 4, 8, 9, 11, 16, and 17

Defendant makes these Invalidity Contentions based upon current knowledge, current understanding of Plaintiff Cortex MCP, Inc.'s ("Plaintiff's" or "Cortex's") infringement contentions, and Defendant's investigation to date. Defendant has not completed the investigation of the facts relating to this case, discovery in this action, or completed preparation for trial. This disclosure is without prejudice to Defendant's right to produce evidence of any additional prior art references. Accordingly, Defendant reserves the right to supplement or amend the disclosures made herein as new, additional, or different information is learned and discovered.

Further, these disclosures, including the accompanying claim charts, were prepared prior to the Court's claim construction ruling and disclosure of claim construction positions from Plaintiff. Defendant's positions on the invalidity of particular claims will depend on how the claims are construed by the Court. In the absence of a claim construction ruling, these contentions are made in the alternative and are not necessarily intended to be consistent with each other and other invalidity contentions herein. These contentions are made out of an abundance of caution to reflect the potential scope of the claims that Plaintiff appears to be advocating or could advocate, as suggested in the Plaintiff's infringement contentions. These infringement contentions are deficient in numerous respects, which has prejudiced Defendant's ability to develop its invalidity defenses. These invalidity contentions should not be seen as a suggestion that Plaintiff's reading of the Asserted Claims is correct. Defendant reserves the right to supplement or amend these disclosures in light of Plaintiff's claim construction positions and following receipt of the Court's

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claim construction order construing the Asserted Claims.

The citations to the prior art provided in these invalidity contentions are intended to be exemplary, not exhaustive. Defendant has endeavored to cite to the most relevant portions of the identified prior art. Other portions of the identified prior art may additionally disclose, either expressly or inherently, and/or render obvious one or more elements or limitations of the Asserted Claims. Defendant reserves the right to rely on uncited portions of the identified prior art to establish the invalidity of the Asserted Claims. Moreover, Defendant reserves the right to rely on uncited portions of the identified prior art, other art, or expert testimony to provide context to or aid in understanding the cited portions of the identified prior art. Defendant also reserves the right to rely upon ordinary skill in the art, treatises, published industry standards, and similar documents to demonstrate the knowledge of one of relevant art. Where Defendant cites to a particular drawing or figure, the citation encompasses the description of the drawing or figure, as well as any text associated with the drawing or figure. Similarly, where Defendant cites to particular text concerning a drawing or figure, the citation encompasses that drawing or figure as well. Also, where Defendant cites to any portion of prior art as disclosing a particular limitation, that citation applies with equal force to all similar or identical limitations in each of the Asserted Claims.

Furthermore, the obviousness combinations of references provided below under 35 U.S.C. § 103 are merely exemplary and are not intended to be exhaustive. Additional obviousness combinations of the references identified below are possible, and Defendant reserves the right to use any such combinations in this litigation. In particular, Defendant is currently unaware of the extent to which the Plaintiff may contend that limitations of the claims at issue are not disclosed in the art identified by Defendant as anticipatory. To the extent that an issue arises with any such limitation, Defendant reserves the right to identify other references which make obvious the addition of the allegedly missing limitation to the disclosed device or method of operation.

I. IDENTIFICATION OF PRIOR ART PURSUANT TO PATENT L.R. 3-3(a)

Based upon presently known information, pursuant to Patent Local Rule 3-3(a), below are Defendant's identification of each item of prior art that anticipates each asserted claim or renders it obvious under 35 U.S.C. §§ 102 and 103.

A. Prior Art Patents & Publications

1. U.S. Patent No. 9,059,972 to Richard Redpath ("Redpath"), filed July 3, 2012, and issued on June 16, 2015. VISA_00000415.

2. U.S. Patent Publication No. 2003/0023858 to Dwip Banerjee et al. ("Banerjee"), published on January 30, 2003. VISA_00000396.

3. U.S. Patent Publication No. 2007/0055630 ("Gauthier"), published on March 8, 2007. VISA_00000383.

4. U.S. Patent Publication No. 2011/0294418 to Chien-Sheng Chen ("Chen"), published on December 1, 2011. VISA_00000371.

5. U.S. Patent Publication No. 2012/0316992 to Timothy W. Oborne ("Oborne"), filed June 7, 2012, and published on December 13, 2012. VISA_00000555.

6. U.S. Patent Publication No. 2009/0271321 to Grant Stafford ("Stafford"), published on October 29, 2009. VISA_00000444.

7. U.S. Patent Publication No. 2013/0054454 to Thomas Purves et al. ("Purves"), filed September 21, 2012, and published on February 28, 2013. VISA_00000679.

8. U.S. Patent Publication No. 2013/0212248 to Jeffrey Scott Neafsey et al. ("Neafsey"), filed February 13, 2013 and published on August 15, 2013. Neafsey claims priority to U.S. Provisional Patent Application No. 61/598,219, filed February 13, 2012. VISA_00000425.

9. U.S. Patent Publication No. 2006/0165060 to Robin Dua ("Dua"), published on July 27, 2006. VISA_00000457.

10. U.S. Patent Publication No. 2012/0310838 to Theodore Harris et al. ("Harris"), filed May 31, 2012, and published on December 6, 2012. VISA_00000506.

11. U.S. Patent Publication No. 2012/0259782 to Ayman Hammad ("Hammad"), filed April 10, 2012, and published on October 11, 2012. VISA_00000642.

12. L. Finžgar and M. Trebar, "Use of NFC and QR code identification in an electronic ticket system for public transport" SoftCOM 2011, 19th International Conference on Software, Telecommunications and Computer Networks, Split, Croatia, 2011 ("Finžgar"). VISA_00031613.

13. Chaumette, S., Dubernet, D., Ouoba, J., Siira, E., Tuikka, T., "Architecture and Comparison of Two Different User-Centric NFC-Enabled Event Ticketing Approaches. In: Balandin, S., Koucheryavy, Y., Hu, H.," Smart Spaces and Next Generation Wired/Wireless Networking, 2011, pp 165–177 ("Chaumette"). VISA_00000820.

14. Scoping SIG, Tokenization Taskforce PCI Security Standards Council, Information Supplement: PCI DSS Tokenization Guidelines, Version 2.0, August 2011 (the "PCI DSS Guideline"). VISA_00031146.

15. PCI Mobile Payment Acceptance Security Guidelines, Version 1.0, September 2012 (the "PCI Mobile Guideline"). VISA_00031169.

16. EMV Integrated Circuit Card Specifications for Payment Systems, Book 2, Security and Key Management, Version 4.3, November 2011 ("EMV Book 2 v 4.3"). VISA_00031193.

17. EMV Integrated Circuit Card Specifications for Payment Systems, Book 3, Application Specification, Version 4.3, November 2011 ("EMV Book 3 v 4.3"). VISA_00006915.

18. EMV Integrated Circuit Card Specifications for Payment Systems, Book 1 Application Independent ICC to Terminal Interface Requirements, Version 4.2, June 2008 ("EMV Book 1 v 4.2"). VISA_00030699.

19. EMV Integrated Circuit Card Specifications for Payment Systems, Book 2 Security and Key Management, Version 4.2, June 2008 ("EMV Book 2, v 4.2"). VISA_00030896.

20. EMV Contactless Mobile Payment, EMVCo White Paper on Contactless Mobile Payment, Version 2.0, September 2011 ("EMV White Paper"). VISA_00031072.

21. EMVCo Mobile Contactless (MPWG), Architecture and Work Products, Version 0.2, March 2009 ("EMVCo Architecture and Work Products"). VISA_00031119.

22. Bell ID, Six Myths Preventing EMV Migration in the U.S. Fact vs. Fiction White Paper, 2011 ("Bell ID White Paper"). VISA_00034758.

23. Smart Card Alliance, The Mobile Payments and NFC Landscape: A U.S. Perspective, A Smart Card Alliance Payments Council White Paper, September 2011 ("The Mobile Payments and NFC Landscape" or "Smart Card Alliance" or "Smart Card Alliance White Paper"). VISA_00034646.

24. Smart Card Alliance, Card Payments Roadmap in the United States: How Will EMV Impact the Future Payments Infrastructure?, September 2012 ("Card Payments Roadmap"). VISA_00034699.

25. Paul Rasmussen, NFC Cityzi now counts 2.5M users in France, February 6, 2013, Fierce Wireless, https://www.fiercewireless.com/europe/nfc-cityzi-now-counts-2-5m-users-france. VISA_00034894.

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B. Public Use / Offer for Sale

In addition to the publications identified above, on information and belief, the following Products were in public use, offer for sale and/or sale prior to the priority date of the Asserted Patents:

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   b. Schlage Credentials Knowledge Guide ES-5907.pdf, "Schlage Credentials Knowledge Guide", VISA_00000785 - VISA_00000802.

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i. Ingersoll Rand Security Technologies aptiQ Smart Cards from Schlage, VISA_00034902, https://web.archive.org/web/20110222070625/http://w3.securitytechnologies.com/products/credentials/.

j. Ingersoll Rand Security Technologies - Contactless Smart MIFARE Credentials, VISA_00034900, available at https://web.archive.org/web/20101024001809/http://w3.securitytechnologies.com/products/credentials/credential_options/cards/smart_credentials/Pages/details.aspx?InfoID=33

k. MFE Phoning home, VISA_00034963, available at https://www.multifamilyexecutive.com/technology/phoning-home_o.

l. Locksmith Ledger, University of San Francisco Embraces Near Field Communications, VISA_00034904, available at https://www.locksmithledger.com/electronics-access-control/news/10729113/university-of-san-francisco-embraces-near-field-communications

2. The Google Wallet System by Google LLC dated September 19, 2011, as described in:

a. Google Blog - Launching Google Wallet on Sprint and working with Visa, American Express and Discover.pdf https://googleblog.blogspot.com/2011/09/launching-google-wallet-on-sprint-and.html. VISA_00000778 - VISA_00000780.

b. What is Google Wallet, https://www.youtube.com/watch?v=iuvyN4iZiP8. VISA_00032090.

c. Technology_ Google Wallet _ The New York Times.mp4, https://www.youtube.com/watch?v=l8JOT6ban7o. VISA_00032091.

d. Google I_O 2012 - Introducing Google Wallet Cloud APIs.mp4, https://www.youtube.com/watch?v=tpEGuSwv1fY&t=1546s. VISA_00032092.

e. Google Wallet Just Got A Huge Update That Lets You Use Any Major Credit Card, https://www.businessinsider.com/google-wallet-update-2012-8, August 1, 2012. VISA_00032123.

f. Citi: What is Google Wallet?, https://www.youtube.com/watch?v=duHgioveLvMVISA_00032093. VISA_00032093.

g. Google Wallet Demo, https://www.youtube.com/watch?v=fVCqubJNXAM. VISA_00032095.

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i. Introducing Google Wallet, https://www.citigroup.com/global/news/perspective/2011/introducing-google-wallet, VISA_00032121.

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o. Google Commerce Blog - Use any credit or debit card with Google Wallet, https://commerce.googleblog.com/2012/08/use-any-credit-or-debit-card-with.html, VISA_00032132 - VISA_00032136.

p. PayPass Toolkit For Acquirers at VISA_00031597-VISA_00031612.

q. EMV Specifications, including VISA_00031193; VISA_00006915; VISA_00030699; VISA_00030896; VISA_00030896; VISA_00031072; VISA_00031119.

r. Visa payWave Acquirer Implementation Guide for VCPS 2.1. VISA_00001068-VISA_00001143.

3. The ISIS System by AT&T Mobility, T-Mobile USA and Verizon Wireless, dated October 22, 2012, described in:

a. GV-R ISIS Mobile Payment Demo.mp4, VISA_00032077, available at https://www.youtube.com/watch?v=VIfRHCDTzqI.

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c. Isis Revealed: Carrier-Led Mobile Payments Venture Shows Off Its New App, Announces Banking Partners, VISA_00032101 - VISA_00032108, February 27, 2012, available at https://techcrunch.com/2012/02/27/isis-revealed-carrier-led-mobile-payments-venture-shows-off-its-new-app-announces-banking-partners.

d. Pay with Isis - Where to Use.pdf, https://web.archive.org/web/20121107043631/http:/www.paywithisis.com/where-to-use.xhtml, VISA_00032098.

e. Visa Inc. - Isis Forms Relationships with Visa, MasterCard, Discover and American Express.pdf, https://investor.visa.com/news/news-details/2011/Isis-Forms-Relationships-with-Visa-MasterCard-Discover-and-American-Express/default.aspx, VISA_00032109-VISA_00032112.

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e. The Visa System Diagram October Generic CF. VISA_00032051.

f. Visa TSM Services Strategy. VISA_00032050.

[1] In addition to the identified documents, Visa also reserves the right to rely upon source code to be produced once a stipulated protective order with agreed source code provisions has been entered in this case.

g. Visa Mobile Gateway Specification Overview, Version 1.0, April 2011. VISA_00000015-VISA_00000043.

h. Visa Mobile Gateway Secure Channel Functional Specification, Version 1.0, June 2011. VISA_00032591-VISA_00032626

i. U.S. Patent Publication No. 2007/0055630 ("Gauthier"). VISA_00000383-VISA_00000395.

j. Visa Best Practices Tokenization Version 1.0, July 14, 2010. VISA_00031189-VISA_00031192.

k. Visa Unified Platform. VISA_00001145.

l. "Visa Proxy Accounts Personalization and Transaction Flow" Presentation, November 25, 2008. VISA_00001144.

m. Visa payWave for Mobile Testing and Compliance Guidelines for Mobile Device Manufacturers and Mobile Network Operators Version 1.1, October 2012. VISA_00000989-VISA_00001005.

n. EMV Integrated Circuit Card Specifications for Payment Systems, including VISA_00031193-VISA_00031366; VISA_00006915-VISA_00007144; VISA_00030699-VISA_00030895; VISA_00030896-VISA_00031071.

o. EMV Contactless Mobile Payment, EMVCo White Paper on Contactless Mobile Payment, Version 2.0, September 2011. VISA_00031072-VISA_00031118.

p. EMVCo Mobile Contactless (MPWG) Architecture and Work Products, Version 0.2, March 2009. VISA_00031119.

7. The Bell ID System by Bell ID, dated April, 2012, described in:

a. "Bell ID Certificate Manager" Video at VISA_00000781, available at https://www.youtube.com/watch?v=R_KARvx9Mto.

b. EMVCo Mobile Contactless (MPWG) Architecture and Work Products, Version 0.2, March 2009. VISA_00031119.

c. EMV Contactless Mobile Payment, EMVCo White Paper on Contactless Mobile Payment, Version 2.0, September 2011. VISA_00031072-VISA_00031118.

d. EMV Integrated Circuit Card Specifications for Payment Systems, including VISA_00031193-VISA_00031366; VISA_00006915-VISA_00007144; VISA_00030699-VISA_00030895; VISA_00030896-VISA_00031071.

e. "Bell ID Joins EMV Migration Forum", https://www.securetechalliance.org/bell-id-joins-emv-migration-forum/#:~:text=Bell%20ID%20also%20joined%20the%20Smart%20Card,product%20range%20enables%20banks%20and%20financial%20institution. VISA_00034970.

f. Bell ID "Mobile Payments (NFC)", https://web.archive.org/web/20120415135408/http://www.bellid.com/solutions/bell-id-mobile-token-manager. VISA_00034974.

g. Bell ID, Six Myths Preventing EMV Migration in the U.S. Fact vs. Fiction White Paper, 2011 ("Bell ID White Paper"). VISA_00034758.

h. Smart Card Alliance, The Mobile Payments and NFC Landscape: A U.S. Perspective, A Smart Card Alliance Payments Council White Paper, September 2011 ("The Mobile Payments and NFC Landscape" or "Smart Card Alliance" or "Smart Card Alliance White Paper"). VISA_00034646.

i. TSM Software Solutions, available at https://web.archive.org/web/20120903132137/http://bellid.com/solutions/ota-lifecycle-management VISA_00034972.

j. Smart Card Alliance, The Mobile Payments and NFC Landscape: A U.S. Perspective, A Smart Card Alliance Payments Council White Paper, September 2011 ("The Mobile Payments and NFC Landscape" or "Smart Card Alliance" or "Smart Card Alliance White Paper"). VISA_00034646.

k. Smart Card Alliance, Card Payments Roadmap in the United States: How Will EMV Impact the Future Payments Infrastructure?, September 2012 ("Card Payments Roadmap"). VISA_00034699.

8. The PayPal System by PayPal Holdings, Inc., dated November 14, 2012, as described in "PayPal Tests QR Codes In Shop Windows; Mobile Check-Ins At Stores for Personalized Service" at VISA_00000767-VISA_00000777, Available at https://techcrunch.com/2012/11/14/paypal-tests-qr-codes-in-shop-windows-mobile-check-ins-at-stores-for-personalized-service/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAIa-9tWu0r0jFVbQhuUIZj8gklHx9QqpWXvMz7ChQ2IfxWK2-qBJ75QVbO4sUWbyTvPL3M11fuXx9AHXdUUAu414Fv8975ge_1omVxVRvJUBV5-CvfeuyVUzpp3qQJsv75JQLXP99SaZf8c1u1DbTM3oviIUrshEKTgUTuuIgSr0.

9. The Visa/DeviceFidelity MicroSD payment systems, as described in the Mobile Payments and NFC Landscape, VISA_00034646, dated December 2010.

10. The Discover Zip Sticker system, as described in the Mobile Payments and NFC Landscape, VISA_00034646, dated November 2010.

11. The Sheetz NFC payment system, as described in the Mobile Payments and NFC Landscape, VISA_00034646, dated May 2009.

12. The Samsung/Multiapp Transit stored value payment system described in the Mobile Payments and NFC Landscape, VISA_00034646, dated January 2008.

13. The NYC Transit payment system described in the Mobile Payments and NFC Landscape, VISA_00034646, dated January 2007.

II. STATEMENT AS TO ANTICIPATION AND OBVIOUSNESS PURSUANT TO PATENT L.R. 3-3(b)

Based upon presently known information, pursuant to Patent Local Rule 3-3(b), below are the grounds on which the Asserted Claims are invalid for failure to meet the requirements of both 35 U.S.C. §§ 102 and 103. The Asserted Claims are neither novel nor non-obvious in the field of digital wallet and/or contactless transaction. All aspects of the Asserted Claims were well-known and extensively researched well before the filing of the Asserted Patents.

A. Anticipation of the Asserted Claims

Defendant contends the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 102 as being anticipated by Oborne, Stafford, Banerjee, Redpath, Finžgar, Chaumette, the aptiQmobile System, the publications related to the Cityzi System, the Google Wallet System, the ISIS System, the PayPass Wallet System, the Visa Olympic System, the Visa System, the publications related to the Smart Card Alliance White Papers, the publications related to practicing the EMVCo Standards and the publications related to practicing the PCI Standard.

B. Obviousness of the Asserted Claims

To the extent not anticipated, the Asserted Claims are invalid under 35 U.S.C. § 103 as being obvious to a person having ordinary skill in the art of the relevant technology. Thus, in the event a particular prior art reference identified above does not anticipate an Asserted Claim, the reference, alone or in combination with one or more of the other references disclosed herein, renders such Asserted Claim obvious. Moreover, to the extent a particular prior art reference identified above does not anticipate an Asserted Claim, the reference, alone or in combination with the knowledge of a person having ordinary skill in the relevant art, renders such Asserted Claim obvious.

For example, to the extent that Plaintiff contends that the following limitations are not disclosed in Oborne, Stafford, Banerjee, Redpath, Finžgar, Chaumette, the aptiQmobile System, the publications related to Cityzi System, the Google Wallet System, the ISIS System, the PayPass Wallet System, the Visa Olympic System, the Visa System, the publications related to the EMVCo Standards, the publications related to the PCI Standard and the publications related to the Smart Card Alliance White Papers:

- "wherein **the information associated with the credential of the user comprises the reference to the remotely stored credential**." ('531 Patent, claim 8) (emphasis added).
- "wherein the OVER file **comprises a portion of the stored credential**." ('531 Patent, Claim 14) (emphasis added).
- "a second official representation of the credential **that is invalid for use in the first OVER file storage client device for authenticating the user**" ('531 Patent, Claim 2) (emphasis added).
- "a second virtual representation of the credential that has been verified by the issuing agency to be a second official representation of the credential **that is invalid for use in the first OVER file storage client device for authenticating the user**" ('973 Patent Claims 2, 9, 17) (emphasis added).
- "a device identifier for the credential, **wherein the device identifier limits the credential to the [OVER file storage] client device**" ('531 Patent Claim 6; '859 Patent Claim 5; '973 Patent Claims 4, 11) (emphasis added).
- "displaying a portion of the OVER file to an OVER file third-party client verifying device to authenticate the user" ('531 Patent Claim 15).
- "a […] Near Field Communication (NFC) enabled device" ('859 Patent, Claim 1; '973 Patent, Claim 1).
- "based on a Near Field Communication (NFC) protocol-based communication" ('859 Patent, Claim 1; '973 Patent, Claim 1).

Those limitations would have been obvious to one of ordinary skill in the art at the time.

Specific examples of the items of prior art, which render the Asserted Claims obvious, are cited and described in the claim charts attached hereto as Exhibits A, B, C and D and Appendices A, B, C and D. No Asserted Claim represents more than the result of "ordinary" innovation over the prior art referenced above.

Defendant further believes that no showing of a specific motivation to combine prior art is required to combine the references disclosed above, as each combination of prior art would have no unexpected result, and at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739-40, (2007) (rejecting the Federal Circuit's "rigid" application of the teaching, suggestion, or motivation to combine test, instead espousing an "expansive and flexible" approach). The Supreme Court has held that a person of ordinary skill in the art is "a person of ordinary creativity, not an automaton" and "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 1742. Nevertheless, in addition to the other information contained herein, Defendant hereby identifies additional motivations and reasons to combine the cited art.

Motivation to combine any of the above-identified references with others exists within the references themselves, as well as within the knowledge of those of ordinary skill in the art at the relevant time. For example, Oborne, Purves, Neafsay, Hammad, the Google Wallet System, the Visa System, the Visa Olympic system, the ISIS system, Systems practicing the Smart Card Alliance White Papers, the publications related to the EMVCo Standards and the publications related to the PCI Standard supported mobile payment and coupon usage, both of which are "credential[s] of a user for proving […] qualifications," under Plaintiff's definition shown in the infringement contention. The PayPass Wallet System, the publications related to Cityzi System further introduce the function of obtaining and authenticating transportation pass and electronic tickets into digital wallets, the exact topic Finžgar, Chaumette and Harris focus on. A person of ordinary skill would have been motivated to combine the prior art references described above to establish a practical, secure and intuitive mobile device based cashless transaction system.

Other prior art references, such as the aptiQmobile System, Dua, Stafford, Banerjee and Redpath, are directed to issuance and authentication of digital identifications such as e-passports, military IDs, and employment IDs, and student IDs. A person of ordinary skill would have been motivated to combine the prior art references described above to build and improve a centralized identification storage and authentication service system.

As previously indicated, Exhibits A, B, C and D and Appendices A, B, C and D identify

several prior art combinations with respect to particular limitations. These prior art combinations are not exhaustive but rather are illustrative examples of the prior art combinations. These exemplary combinations are alternatives to the anticipation and single reference obviousness contentions herein, and, thus, they should not be interpreted as indicating that any of the individual references included in the exemplary combinations are not alone invalidating prior art under 35 U.S.C. §§ 102 and/or 103. If, and to the extent, Plaintiff challenges the correspondence of any of these references to particular elements of the respective Asserted Claims, Defendant reserves the right to supplement these contentions to identify with additional particularity motivation to combine particular references with one another. Defendant may rely upon a subset of those references depending upon the Court's claim construction and further investigation.

III. CLAIM CHART WITH SPECIFIC REFERENCES TO THE PRIOR ART PURSUANT TO PATENT LOCAL RULE 3-3(c)

Pursuant to Patent Local Rule 3-3(c), Defendant attaches the claim charts for the Asserted Claims hereto as Exhibits A, B, C and D and Appendices A, B, C and D. These claim charts identify the prior art that anticipate and/or, in combination with other identified prior art, renders obvious the Asserted Claims and where in each item of prior art each element of each Asserted Claim is found. These charts are provided for illustrative purposes only and may not set forth every place in every reference where a claim element is disclosed. In instances where a particular figure in a prior art reference is cited, the citation should be understood to encompass the caption and description of the figure, and any text relating to the figure in addition to the figure itself. Conversely, where a cited portion of text refers to a figure, the citation should be understood to include the figure as well.

Defendant also identifies in the claim charts whether a given reference anticipates and/or renders the Asserted Claims obvious. The specific prior art combinations shown in the charts are exemplary and not intended to be exhaustive. The combinations are illustrative of various other possible combinations of prior art references. Accordingly, Defendant contends that each identified prior art reference in combination with other identified prior art references or a group of identified prior art references render the Asserted Claims obvious. To the extent that any prior art

reference disclosed in these contentions is not cited in the attached claim chart, Defendant also reserves the right to rely on the additional reference, either alone or in combination with one or more of the other references disclosed herein.

IV. GROUNDS FOR INVALIDITY PURSUANT TO PATENT LOCAL RULE 3-3(d)

Pursuant to Patent Local Rule 3-3(d), below are the grounds on which the Asserted Claims are invalid for failure to meet the requirements of 35 U.S.C. § 101, 35 U.S.C. § 112(2) or 35 U.S.C. § 112(1).

A. The Asserted Claims Are Invalid under 35 U.S.C. § 101

The Asserted Claims are invalid under 35 U.S.C. § 101. Under 35 U.S.C. § 101, a patent may generally be granted for "any new and useful process, machine, manufacture, or composition of matter" or any improvement thereof. Because the asserted patents are directed to abstract ideas, one or more of the asserted claims are invalid for failing to claim patent-eligible subject matter, which, as the Supreme Court confirmed in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, does not extend to abstract ideas. 573 U.S. 208, 216 (2014).

Under Alice step one, and under Cortex's apparent construction of the claims for the purposes of alleging infringement, each of the asserted claims is directed to the abstract concept of requesting, storing, and authenticating electronically stored credentials. These are patent ineligible abstract ideas. *See, e.g.*, *Electronic Commc'n Techs, LLC v. ShoppersChoice.com*, *LLC*, 958 F.3d 1178, 1181 (Fed. Cir. 2020) (holding that the process of "enabling a first party to input authentication information, storing the authentication information, and providing the authentication information along with the advance notice of arrival to help ensure the customer that the notice was initiated by an authorized source" is abstract).

Under Alice step two, the elements of the asserted claims—considered either separately or as an ordered combination—do not provide an inventive concept. Taking the asserted claim elements separately, the function performed at each step is purely conventional and may be implemented on conventional computers. Although the Asserted Claims use novel terms in their limitations, these terms merely reframe the generic computer components. For example, "an officially verifiable electronic representation (OVER) generation and verification engine" is an

authentication server. "An OVER file storage client device" and "an OVER file third-party client verifying device" are client computer devices. *See e.g.*, '531 Patent, Claim 1; *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App'x 1014, 1016 (Fed. Cir. 2017) (affirming the district court's holding that an "authentication server," "access server," "Internet Protocol network," and "client computer device" are "indisputably generic computer components.")

Moreover, this court has held that the Near Field Communication element in the '859 and '973 patents are not inventive. *See* '859 Patent, Claim 1; '973 Patent, Claim 1; *Samsung Elecs. Co. v. Blaze Mobile, Inc.*, No. 21-CV-02989-EJD, 2023 WL 3510380, at *8 (N.D. Cal. May 16, 2023) (holding "NFC protocol" is not inventive). All of the elements of the purported invention of the Asserted Patents were conventional in the prior art, as demonstrated by the prior art cited below with respect to invalidity under 35 U.S.C. §§ 102 and 103 and the attached claim charts that demonstrate that each element of each asserted claim of the Asserted Patents was conventional and routine in the prior art. These elements thus cannot provide the necessary inventive concept. *See id*. at *9.

Visa incorporates by reference as if set forth fully herein all briefing and exhibits relating to its Motion to Dismiss for Unpatentability and to Dismiss Willful and Indirect Infringement Claims. Dkt. 65.

B. The Asserted Claims Are Invalid under 35 U.S.C. § 112 ¶ 2

The Asserted Claims are invalid under 35 U.S.C. § 112(b) ¶ 2, because they are indefinite. The claims of a patent must "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention." 35 U.S.C. § 112(b) ¶ 2. A claim is invalid as indefinite if it is not sufficiently precise to permit a potential competitor to determine whether or not it is infringing. *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470 (Fed. Cir. 1993). Claims are required to reasonably apprise those skilled in the art of the scope of the invention. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003). A person of ordinary skill in the art must be able to determine the scope of the claims without undue experimentation. *Geneva Pharms., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1383-84 (Fed. Cir. 2003); *see also Standard Brands, Inc. v. Nat'l Grain Yeast Corp.*, 308 U.S. 34, 38 (1939); *Deep Welding, Inc. v.*

Sciaky Bros., Inc., 417 F.2d 1227, 1242 (7th Cir. 1969) ("the patent must be sufficiently specific so as not to compel independent experimentation to determine the bounds of the inventor's claims"); *Standard Oil Co. v. Tide Water Associated Oil Co.*, 154 F.2d 579, 582-83 (3d Cir. 1946).

For example, Defendant reserves the right to argue that at least the following terms of the Asserted Claims may render those claims indefinite and thus invalid:

- "OVER file" (all Asserted Claims of the Asserted Patents)
- "a credential" (all Asserted Claims of the '531 Patent, '859 Patent and '973 Patent)
- "an original credential" (all Asserted Claims of the '854 Patent)
- "proving/to prove the user's identity or qualifications" (all Asserted Claims of the '531 Patent, '859 Patent and '973 Patent)
- "a virtual representation of the credential that has been verified by an issuing agency to be an official representation of the credential" (all Asserted Claims of the '531 Patent, '859 Patent and '973 Patent)
- "a first virtual representation of the original credential that has been verified by an issuing agency to be a first official representation of the credential" (all Asserted Claims of the '854 Patent)
- "an official representation of the credential" ('531 Patent, '859 Patent and '973 Patent)
- "an official representation of the original credential" (all Asserted Claims of the '854 Patent)
- "accessing . . . a first OVER file stored on a first OVER file client device" (all Asserted Claims of the '854 Patent)
- "the credential is generated when the processor determines that no credential of the user is stored" ('531 Patent, Claims 3 and 22)
- "the stored credential" ('531 Patent, Claim 14)
- "the first OVER file generation request" ('531 Patent, Claim 21)
- "the response transmitted to the user device" ('531 Patent, Claim 28)
- "status indicator" ('531 Patent, Claims 4, 5, 7, 11, 13, 15, and 20; '854 Patent, Claims 1, 15; '859 Patent, Claims 4, 9, 12, 20; '973 Patent, Claims 1, 8, 16)
- "wherein said information is used to prove the user's identity or qualifications" (all Asserted Claims of the '859 Patent)

- "based on a Bluetooth protocol-based communication associated with the OVER file on the OVER file storage client device of the user being transmitted to the OVER file third-party client verifying device via an NFC protocol" ('859 Patent, Claims 18-21)
- "wherein first OVER file is itself a first credential of the user" ('854 Patent, Claim 15)
- "the OVER file" ('854 Patent, Claim 16)
- "wherein the second OVER file is itself a second new credential over the first OVER file and the original credential" ('854 Patent, Claim 15)
- "a second official representation of the credential that is invalid for use in the first OVER file storage client device for authenticating the user" ('531 Patent, Claim 2)
- "a second virtual representation of the credential that has been verified by the issuing agency to be a second official representation of the credential that is invalid for use in the first OVER file storage client device for authenticating the user" ('973 Patent Claims 2, 9, 17)
- "a device identifier for the credential, wherein the device identifier limits the credential to the [OVER file storage] client device" ('531 Patent Claim 6; '859 Patent Claim 5; '973 Patent Claims 4, 11)

Defendant anticipates identifying additional claim terms, which may render the Asserted Claims indefinite, after the Plaintiff identifies its claim construction positions.

C. The Asserted Claims Are Invalid under 35 U.S.C. § 112 ¶ 1

The Asserted Claims are likewise invalid under 35 U.S.C. § 112 ¶ 1, because they lack written description or enablement. A patent must contain a written description of the claimed invention. The written description must clearly convey to those skilled in the art that, as of the filing date sought, the applicant possessed the claimed invention. A patent must also teach those of ordinary skill in the art how to make and use the invention as it is claimed, without undue experimentation. Defendant reserves the right to argue that at least the following terms of the Asserted Claims may render those claims invalid for lack of written description or enablement:

- "a virtual representation of the credential that has been verified by an issuing agency to be an official representation of the credential" (all Asserted Claims of the '531 Patent, '859 Patent and '973 Patent)
- "The computer-implemented method of claim 1, wherein the OVER file comprises a portion of the stored credential." ('531 Patent, Claim 14)
- "the credential is generated when the processor determines that no credential of the user is stored" ('531 Patent, Claims 3 and 22)

- "wherein the credential information comprises the credential" ('531 Patent, Claim 24)
- "wherein first OVER file is itself a first credential of the user" ('854 Patent, Claim 15)
- "wherein the second OVER file is itself a second new credential over the first OVER file and the original credential" ('854 Patent, Claim 15)
- "request the credential from the issuing agency" ('859 Patent, Claim 8)
- "based on a Bluetooth protocol-based communication associated with the OVER file on the OVER file storage client device of the user being transmitted to the OVER file third-party client verifying device via an NFC protocol" ('859 Patent, Claims 18-21)

V. PATENT LOCAL RULE 3-4 DOCUMENT PRODUCTION.

Pursuant to Patent L.R. 3-4(a), Defendant is concurrently producing the following documents sufficient to show the operation of the accused products:

VISA_00000015 - VISA_00000312; VISA_00000989 - VISA_00001067; VISA_00001068 - VISA_00031145; VISA_00031189 - VISA_00031192; VISA_00031908 - VISA_00032051; VISA_00032142 - VISA_00033602.

Pursuant to Patent L.R. 3-4(b), Defendant is concurrently producing the following copies of the prior art identified pursuant to Patent L.R. 3-3(a):

VISA_00000015 - VISA_00000988; VISA_00000989 - VISA_00001005; VISA_00001068 - VISA_00031145; VISA_00031146 - VISA_00031188; VISA_00031189 - VISA_00031192; VISA_00031193 - VISA_00031907; VISA_00031908 - VISA_00032051; VISA_00032052 - VISA_00032141; VISA_00032142 - VISA_00033602.

Pursuant to Patent L.R. 3-4(c), Defendant is concurrently producing the following agreements that may be related to the accused products or may be comparable to a license that would result from a hypothetical reasonable royalty negotiation:

VISA_00033603 - VISA_00034645.

Pursuant to Patent L.R. 3-4(d), Defendant is concurrently producing the following documents sufficient to show the sales, revenue, cost, and profits for the accused products:

VISA_00034934.

Defendant has no documents in its possession to produce pursuant to Patent L.R. 3-4(e).

Dated: March 15, 2024

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CERVICE OF SERVICE

The undersigned, an attorney, hereby certifies that a true and correct copy of the foregoing documents were served on all counsel of record via electronic mail on March 15, 2024.

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