IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,

Petitioner,

v.

PROXENSE, LLC

Patent Owner

IPR2024-00232 (Patent 8,352,730 B2)

IPR2024-00233 (Patent 8,886,954 B1)

<u>DECLARATION OF TROY CARROTHERS</u>

I.   QUALIFICATIONS

1. I'm a financial services and retail leader with approximately thirty years of experience working in a variety of leadership roles in retail payments. These responsibilities have spanned operational leadership positions with responsibility for functions with small teams such as Risk Management or Financial Planning & Analysis in payment issuance and acceptance to leading multi-billion dollar retail credit and debit portfolios with thousands of employees. The retail payment portfolios I've worked with have ranged in size from a few hundred thousand accounts to tens of millions of accounts. I currently provide strategic advisory and consulting services specializing in payments, credit, and financial operations for a variety of clients including retailers, payment processors, start-ups, non-profits, and others in the FinTech and payments industries.

2. My early experience with retail payments was spent in a variety of roles working for Citibank in the United States and Latin America. With the resources to purchase and manage retail credit card portfolios all around the world, Citibank provided an excellent foundation for me to gain exposure to bank-branded credit cards as well as co-brand and retail private-label credit cards while working hands-on in operational functions including accounting, transaction processing, underwriting, fraud prevention, and dispute management of Visa, MasterCard, and Diner's Club credit card transactions. Because of the co-brand and private-label credit card functional expertise I developed at Citibank, I was asked to participate in many operational and risk management portfolio reviews on Citibank's portfolios throughout North America, Central America, and the Caribbean. This exposure to many varied programs supporting multiple retail verticals later proved to be invaluable in understanding the foundational aspects of the payments ecosystem and best practices in risk management, specifically underwriting, collections, fraud mitigation, and dispute management across each of the primary payment networks.

3. I left Citibank in 2002 to work with Kohl's, where I initially assumed responsibility for the operational and risk management aspects of Kohl's small private-label credit card portfolio. Within a few years I was promoted to Senior Vice President with full operational and profit & loss (P&L) responsibility for all aspects of payment issuance and acceptance in stores and online. This responsibility included all aspects of the

issuance of Kohl's private-label credit card portfolio, credit and debit card acceptance in-store and online, as well as all financial risk management functions for the company. Part of this responsibility included negotiating with and designing payment processing enhancements with our acquirers as well as working with issuing banks and card networks, such as Visa and MasterCard. I held this role for fourteen years. During this timeframe, Kohl's expanded nationally to become the nation's single largest department store with stores in forty-nine (49) states, online sales approaching $5 billion annually, and total company sales of approximately $20 billion annually.

4. In addition to the experience identified above, I served on the board of the Merchant Advisory Group ("MAG")1 for six (6) years helping build greater collaboration, education, and advocacy across the retail payments ecosystem, including representing the MAG's retail members in best practice discussions and industry forums with issuers, networks, and payment processors of all kinds. More than half of my tenure with the MAG included serving as Vice-Chair or Chair of this organization representing nearly two-hundred retailers whose sales total approximately $5.0 trillion annually and represent approximately 60% of the total U.S. card transaction volume.

5. I've spent the last four years consulting on a variety of payments topics including risk management, process design, contract negotiation, operational excellence, and regulatory compliance for retailers, start-ups, FinTech companies, industry analysts, and others. My combined experience of working directly for the financial institution and the retailer (brick & mortar and online) gives me unique knowledge of and insight into the flow and risks of retail payments, as well as a thorough understanding of many of the formal and informal nuances of credit card operations and network transaction processing requirements that comprise the payments ecosystem.

6. A copy of my CV detailing my experience, professional affiliations, and education is attached as **Appendix A.**

7. I relied on U.S. Patent No. 7,188,110 to Ludtke ("Ludtke"), which I understand was attached as Exhibit 1005 and the public documents linked herein.

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1 https://www.merchantadvisorygroup.org/

II.   SCOPE OF WORK AND COMPENSATION

8. I have been asked by counsel for Proxense to provide an expert analysis of U.S. Patent No. 7,188,100. Specifically, I will review the functions and purpose of the Transaction Processing Clearing House ("TPCH") and its applications within that patent.

9. The specifics of the possible digital technologies that can be used for each step of the transaction processs are beyond the scope of this declaration.

10. If called upon to do so, I intend to testify in this case regarding the matters discussed in this declaration.

11. The documents that I relied upon in drafting this report are linked directly therein.

12. For my work in researching this matter and preparing the expert report, my hourly rate is $450. This rate applies to all work performed in assembling this report.

III.   FACTUAL BACKGROUND

A.   United States Patent 7,188,110

13. U.S. Patent 7,188,110 by Ludtke et al. ("Ludtke") is described as "[a] method of identifying an authorized user with a biometric device and enabling the authorized user to access private information over a voice network…[2]" However, throughout Ludtke's detailed descriptions of various scenarios that are applicable, Ludtke provides further clarification regarding the responsibilities and actions of many of the parties involved in those transactions. This report will focus on the functions performed by the TPCH discussed in Ludtke in the context of a purchase transaction.

14. First, I will define the relevant terms.

B.   Payment Authorization

15. A "payment authorization" is a commonly used term in transaction processing. For a merchant, the payment authorization is an electronic message that "marks the point at which the sale is confirmed and funds are secured."[3] The merchant interprets the

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[2] US Patent No. 7,188,110 Abstract March 6, 2007
[3] https://primer.io/blog/what-is-payment-authorization-and-how-does-it-work#:~:text=Payment%20authorization%20is%20when%20an,prioritize%20certain%20transactions%20over%20others.

authorization as a virtual commitment or promise to pay for the transaction. This authorization is traditionally delivered from a card acquirer or a clearing house and provides the merchant the guarantee that it will be compensated for the sale of the goods or services to the purchaser. Therefore, in a traditional transaction, the card issuer provides the authorization to the acquirer or clearing house on behalf of its cardholder or accountholder and the acquirer or clearing house sends the authorization to the merchant.

16. In alternate scenarios, the acquirer or clearing house may issue and deliver the authorization to the merchant on the card issuer and cardholder's behalf. These scenarios are most frequently found in subscription and recurring payments as part of a prior commitment made by the cardholder. This scenario is not discussed in Ludtke.

C.   Settlement

17. Settlement is the function of transaction funding and clearing between the parties. In transactions that include payment acceptance or payment processing fees, the fees will be netted out of settlement before funding the merchant account. According to Kount, "transaction settlement is the process of moving funds from the cardholder's account to the merchant's account…"[4]. Since the merchant does not interact directly with the payment card issuers, the acquirer or clearing house serves the function of funding the merchant's account on behalf of the cardholder and the issuer of the payment card.

18. Traditionally, an acquirer or clearing house will only fulfill the authorization function of an issuer on rare occasions. On these occasions, the acquirer or clearing house will either step in for the card issuer when connectivity has been compromised, provide authorizations for payments issued on the acquirer's own private network, or will provide authorizations for card on file transactions for card issuers or its own private network.

D.   Card on File / Account on File

19. A card on file ("CoF") or account on file is a common process that permits businesses and digital wallets to maintain a customer's payment credentials to be used for future

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[4] https://kount.com/glossary/transaction-settlement

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