## UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner

v.

FINTIV, INC.,

Patent Owner

Case No.: IPR2022-00976 U.S. Patent No. 9,892,386

Title: MONETARY TRANSACTION SYSTEM

DECLARATION OF MICHAEL I. SHAMOS, PH.D.



## **TABLE OF CONTENTS**

		I	Page				
I.	INTRODUCTION						
II.	QUALIFICATIONS						
III.	COM	COMPENSATION					
IV.	MATERIALS CONSIDERED5						
V.	SUMMARY OF MY OPINIONS7						
VI.	LEGAL PRINCIPLES7						
VII.	LEVEL OF ORDINARY SKILL IN THE ART10						
VIII.							
IX.	CLAIM CONSTRUCTION						
	Α.	"committing" a pending transaction					
	B.	"at least one of"					
	C.	"auditing financial transactions"	17				
	D.	"error handling"	19				
	E.	"logging platform objects"	21				
X.	SUMMARY OF THE '386 PATENT2						
XI.	GROUND 1: CLAIMS 1 AND 3 WOULD NOT HAVE BEEN OBVIOUS OVER THE COMBINATION OF DILL, VADHRI, AKASHIKA, AND HANSEN						
	A.	Dill Does Not Teach the Deposit Transaction of Claim 1	27				
		1. Limitation 1.9.1: "wherein the monetary transaction system is implemented to deposit funds at an agent branch" Limitation 1.9.2: "the funds being deposited by a subscriber at the agent branch using a mobile device configured to run a monetary transaction system application, the monetary transaction system performing the following steps" Limitation 1.10.3: "the communication message indicating that the subscriber desires to deposit a specified amount of funds into the subscriber's account"	27				
	B. Dill Does Not Teach or Suggest "A Communication Message From The Mobile Device Indicating That The Subscriber Desires To Deposit A Specified Amount Of Funds Into The Subscriber's Account," as Recited in Claim 1						
	C.	Dill Does Not Teach the Staged Commitment Process of Claim 1					



		1.	Limitation 1.10.5: "committing a pending transaction through the business process services" Limitation 1.10.6: "wherein the				
			integration tier communicates a transaction commitment request to				
			the business process services" Limitation 1.10.7: "receiving a				
			confirmation from the business process services that the pending				
			transaction has been committed" Limitation 1.10.9: "upon				
			receiving a confirmation of commitment from the business process				
			services, committing the pending transaction to the database services"	31			
	D.	D:11 D					
	D.		oes Not Teach the Claimed "Business Process Services"				
		1.	Dill Does Not Disclose "Auditing Financial Transactions"	39			
		2.	Dill Does Not Disclose "Error Handling"	40			
		3.	Dill Does Not Disclose "Logging Platform Objects"	41			
XII.	GROUND 2: CLAIM 2 WOULD NOT HAVE BEEN OBVIOUS						
	OVER THE COMBINATION OF DILL, VADHRI, AKASHIKA,						
	HANSEN AND LIAO4						
	A.	Dill D	oes Not Teach the Withdrawal Transaction of Claim 2	42			
		1.	Limitation 2.12.1: "wherein the monetary transaction system is				
			implemented to withdraw funds at an agent branch using the				
			mobile device configured to run a monetary transaction system	40			
			application"	42			
XIII.	JUR/	<b>Α</b> Τ		44			



## I. INTRODUCTION

- 1. My name is Michael Shamos. I have been retained as an expert witness by Patent Owner Fintiv, Inc. ("Fintiv" or "Patent Owner") for this *Inter Partes* Review IPR2022-00976 of U.S. Patent No. 9,982,386 (the "'386 Patent") filed by Apple Inc. ("Apple" or "Petitioner"). I have been asked to respond to provide this declaration in conjunction with Patent Owner's Response.
- 2. I previously submitted a declaration in this proceeding entitled "Declaration Of Michael I. Shamos, Ph.D.," dated August 23, 2022 ("Initial Declaration," Ex. 2001), which I incorporate here by reference.
- 3. In the Petition, I understand that Petitioner is challenging the validity of Claims 1-3 (the "Challenged Claims") of the '386 Patent (Ex. APPL-1001), constituting all the claims of the '386 Patent.
- 4. I have been asked to consider whether the Challenged Claims of the '386 Patent would have been obvious to a person of ordinary skill in the art ("POSITA") as of the date of the invention. I was also asked to review and comment on several technical statements made by Petitioner in the Petition and by its expert, Dr. Henry Houh, in the "Declaration of Dr. Henry Houh, Under 37 C.F.R. § 1.68 in Support of Petition for *Inter Partes* Review," dated May 5, 2022 ("Houh Declaration, Ex. APPL-1003).



5. This Declaration contains statements of my opinions formed in this case to date and the bases and reasons for those opinions. I may offer additional opinions based on further review of materials in this case, including opinions and/or testimony of other expert witnesses.

## II. QUALIFICATIONS

- 6. This section summarizes my educational background, career history, publications, and other relevant qualifications. My curriculum vitae is attached as Patent Owner's Exhibit 2002, which includes my detailed employment background, professional experience, and list of publications.
- 7. I have an A.B. degree from Princeton University in Physics, an M.A. degree from Vassar College in Physics, an M.S. degree from American University in Technology of Management, an M.S. degree from Yale University in Computer Science, an M. Phil. from Yale University in Computer Science, a Ph.D. from Yale University in Computer Science, and a J.D. degree from Duquesne University.
- 8. I currently hold the title of Distinguished Career Professor in the School of Computer Science at Carnegie Mellon University in Pittsburgh,
  Pennsylvania. I am a member of two departments in that School, the Institute for Software Research and the Language Technologies Institute. I was a founder and Co-Director of the Institute for eCommerce at Carnegie Mellon from 1998-2004 and from 2004-2018 have been Director of the eBusiness Technology graduate



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