

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

FINTIV, INC.,

Plaintiff,

v.

PAYPAL HOLDINGS, INC.,

Defendant.

Civil Action No. 6:22-cv-00288-ADA

JURY TRIAL DEMANDED

DECLARATION OF KAI JOHNSON



I. INTRODUCTION

1. My name is Kai Johnson. I have been retained as an expert witness by Plaintiff Fintiv, Inc. ("Fintiv" or "Plaintiff").

2. I am over the age of 18 and am competent to make this Declaration. I have personal knowledge, or have developed knowledge of these technologies based upon my education, training, or experience of the matters set forth herein.

3. I have been retained by Plaintiff Fintiv, Inc. ("Fintiv"), in the above matter adverse to Defendant, PayPal Holdings Inc. ("PayPal"). I submit this Declaration in support of Fintiv's Supplemental Claim Construction brief. I understand that the Asserted Patents in this case are U.S. Patent Nos. 8,538,845 (the "'845 Patent"), 9,892,386 (the "'386 Patent"), 11,120,413 (the "'413 Patent"), 9,208,488 (the "'488 Patent"), and the 10,438,196 (the "'196 Patent"). I am submitting this Declaration to support of Fintiv's Responsive Claim Construction Brief from the perspective of a person of ordinary skill in the art ("POSITA"). For the purposes of this Declaration, I have not been asked to opine on the meaning of any other disputed terms not addressed below.

4. This Declaration contains statements of my opinions formed in this case to date and the basis 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. SCOPE OF WORK

5. I have been asked to consider the proposed claim constructions and phrases identified for construction from the claims of the '845 Patent, '386 Patent, '413 Patent, '488 Patent, and '196 Patent.

6. I understand that PayPal's expert Dr. Sandeep Chatterjee submitted a declaration (Dkt. 35-1) in support of PayPal's Opening Claim Construction Brief (Dkt. 35).

7. I am being compensated for my work in this case at the rate of \$350 per hour. I am also reimbursed for all reasonable expenses that I incur during the course of this case. My compensation does not depend upon the results of my analysis or the substance of my testimony, nor does my compensation depend on the outcome of this or any related proceeding. I have no personal interest in the outcome of this matter. I have no financial interest in Plaintiff or affiliation with any of the real parties in interest, the Plaintiff or the named inventors of the '845 Patent, '386 Patent, '413 Patent, '488 Patent, and '196 Patent. It is conceivable that I may own mutual funds whose portfolios include stock in Defendant. If this is the case, the value of such holding would not constitute a material part of my net worth.

III. QUALIFICATIONS

8. This section summarizes my educational background, career history, and other relevant qualifications. My curriculum vitae is attached as Appendix A, which includes my detailed employment background and professional experience.

9. I have a Bachelor's of Science degree in Computer Science from the University of Wisconsin-Madison.

10. I am a consultant with over 32 years of business experience. I am currently the President of Sutton Abinger in San Diego, California, a consulting company focused on solutions for payment systems, security, transit, and mobile applications, through which I provide services to U.S. and international clients in the areas of payment systems, information security, cryptography, and mobile applications. I am also an Advisory Partner to Penser Consulting Ltd., a firm in London which provides consulting services related to the payments industry for clients in Europe, the Middle East, and Asia.

11. I was previously the Product and Technology Leader, Chief Architect and Chief Security Officer for Softcard (formerly known as Isis), a joint venture among AT&T, T-Mobile, and Verizon Wireless to develop contactless mobile payments. Prior to that, I worked as a consultant to Verizon Wireless to develop consumer data products.

12. From 1999 to 2004, I worked in London, UK for enCommerce (acquired by Entrust) and SchlumbergerSema (acquired by Atos Origin) on both pre- and post-sales engagements, where many of my clients were in the telecom and financial services industries, and where some of my responsibilities included business development in the mobile payments market.

IV. MATERIALS CONSIDERED

13. In the course of preparing this Declaration, I have considered the '845 Patent, '386 Patent, '413 Patent, '488 Patent, and '196 Patent, their file histories, as well as the materials submitted and referenced in Fintiv's Opening brief.

14. I have also relied on my education, skill, training, and experience in the relevant fields of technology in forming my opinions. I have further considered the viewpoint of a person of ordinary skill in the art ("POSITA") as of the time of the inventions of the '845 Patent, '386 Patent, '413 Patent, '488 Patent, and '196 Patent.

15. I reserve the right to supplement my opinions as expressed in this Declaration to address any new information obtained in the course of this proceeding, or based on any new positions taken by Defendant.

V. APPLICABLE LEGAL STANDARDS

16. Counsel for Plaintiff has informed me of the legal principles that apply in this proceeding.

17. I have been informed and understand that the Court determines, as a matter of law, the meaning and scope of the patent claims. I am informed and understand that the plain and ordinary meaning of a word is determined from the perspective of a person of ordinary skill in the art as of the earliest possible priority date of the asserted claims at issue. I am informed that the primary source of claim meaning is the intrinsic record, which includes the claims, specification, and prosecution history. I understand that the specification is the single best guide to the meaning of a disputed term. I am informed that extrinsic evidence—i.e., evidence that is external to a patent and its prosecution history, such as expert testimony, dictionary definitions, technical treatises, and articles—is useful only if it does not contradict any definition found in or ascertained by a reading of the patent documents. Where extrinsic evidence does conflict with the intrinsic evidence, I am informed that the intrinsic evidence controls.

18. I have been informed by counsel of the following: I understand that a patentee is not entitled to a claim construction that is divorced from the context of the written description and prosecution history. A patentee can become his or her own “lexicographer” by defining terms, within the patent, however he or she chooses, as long as it is done explicitly. Likewise, there may be an express disavowal of claim coverage in the specification or prosecution history. In determining whether a patentee intended to become his or her own lexicographer or intended to disavow claim scope, the Court may look to the intrinsic evidence. I understand that, if no explicit definition is provided for a term in the patent specification, the claim term must be given its plain meaning unless that would be plainly inconsistent with how the term is being used in the claim or the patent specification. It is my understanding that claim terms should be given their ordinary and customary meaning within the context of the patent in which the terms are used, i.e., the

meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention in light of what the patent teaches (a “POSITA”).

19. I understand from counsel the following: To determine how a POSITA would understand a claim term, one should look to those sources available that show what a POSITA would have understood disputed claim language to mean. I understand that, although the specification is a guide to the meaning of the claims, it is an error to import limitations from the specification into the claims. I am further informed and understand that the prosecution history is useful in determining what the applicant believed he was originally claiming, and whether the patentee relinquished claim scope during prosecution. The prosecution history provides evidence of how the PTO and the inventor understood the patent. Prosecution disclaimer ensures that claims are not construed one way in order to obtain their allowance and in a different way against accused infringers.

VI. THE PERSON OF ORDINARY SKILL IN THE ART

20. I understand that the hypothetical POSITA is considered to have the normal skills and knowledge of a person in a certain technical field, as of the time of the invention at issue. I understand that factors that may be considered in determining the level of ordinary skill in the art include: (1) the types of problems encountered in the art; (2) the prior art solutions to those problems; (3) rapidity with which innovations are made; (4) the sophistication of the technology; and (5) the education level of active workers in the field. I also understand that “the person of ordinary skill” is a hypothetical person who is presumed to be aware of the universe of available prior art. Therefore, no such person actually exists.

21. For purposes of my analysis, I have considered how the disputed claim terms below would have been understood at the time of the invention by a POSITA.

22. I have been informed that in defining the skill, experience, and training of a person of ordinary skill in the art at the time of the invention, one must consider the inventions claimed in the '845 Patent, '386 Patent, '413 Patent, '488 Patent, and '196 Patent as a whole, and not individual claim words or phrases in isolation.

23. I have reviewed Dr. Chatterjee's description of a person of skill in the art and I exceed that definition.

VII. THE DISPUTED TERMS

A. "Mobile Wallet" – All Asserted Claims

Fintiv's Construction	PayPal's Construction
Plain and ordinary meaning	A stored value account or prepaid access account (PPA) residing on a subscriber mobile device and that is not maintained by other devices.

24. It is my opinion that a POSITA would be able to understand the term "mobile wallet" through review of the intrinsic record.

25. In paragraph 31, Dr. Chatterjee opines that the term "mobile wallet" was expressly defined. I do not agree with Dr. Chatterjee's opinion. Dr. Chatterjee fails to consider the context of the definition or the usage of the term throughout the patents. In addition, Chatterjee has proposed a definition of the term "mobile wallet" that restricts the term in ways that are not supported by the patents. Chatterjee cites the definition of "mobile wallet" in '845 Patent at 11:32-36 (and '488 9:9-13) but considers only the first sentence of the paragraph in which the term is defined ('845 Patent at 11:32-42).

- a. The term "mobile wallet" or "mobile wallet account" refers to a stored value account or prepaid access account (PPA) that allows the owner (or "subscriber") to pay for goods and services on the mFS platform from his or her mobile wallet account. When the mFS eMoney transaction processor is*

used, the mobile wallet balance is maintained by the mFS platform and value is exchanged within the mFS program as eMoney. When the mPS platform is integrated to an external card processor, the mobile wallet utilizes funds from the Subscriber's prepaid debit card and bank account to exchange value on the mFS platform.

26. I understand that the claims themselves can be used to show the meaning of the claim terms. I understand that the '413 Patent, claim 2 includes claim language "stored value" and claim 3 of the '845 Patent includes the limitation "wherein the monetary transaction system is provided on a prepaid or postpaid phone." I also understand that the terms "mobile wallet account," "subscriber's account," and "agent account" are used in the '845 Patent Claim 1 and '386 Claim 1. The use of these claim terms would not cause a POSITA to import these limitations into the term "mobile wallet." PayPal believes that the patentee defined or disclaimed part of PayPal's proposed definition based on the following: "The term 'mobile wallet' or 'mobile wallet account' refers to a stored value account or prepaid access account (PPA) that allows the owner (or 'subscriber') to pay for goods and services on the mFS platform from his or her mobile wallet account." A POSITA, however, would review the complete intrinsic record. The patent uses permissive language when discussing stored value and prepaid mobile accounts. See e.g. '845 Patent at 9:64-10:16 (using permissive language for "cash-in" and "pre-paid mobile wallet accounts.")). The '845 Patent discloses embodiments of the "monetary transaction system" (i.e., mobile wallet platform) that allow users to add a bank or credit union account to a mobile wallet and a debit or credit card account. See '845 Patent at 13:47-61. The '845 Patent specification explains that "[i]t should be noted that many other transactions can take place over the monetary transaction system [e.g. mobile wallet platform], and that the embodiments described herein should

not be read as limiting,” leaving no doubt that the patentee did not intend to limit the type of mobile wallet. (*Id.* at 28:51-53, see also 29:23-30, “The present invention may be embodied in other specific forms without departing from its spirit or essential character. The described embodiments are to be considered in all respects only as illustrative and not restrictive.”) Thus, the claims and patent specification do not support Dr. Chatterjee’s opinion of an explicit definition.

27. I understand that in paragraph 37, Dr. Chatterjee opined that Fintiv limited the scope of the term “mobile wallet” during the *inter partes* review proceeding (“IPR”). I do not agree with Dr. Chatterjee that there was a clear and unmistakable disclaimer in the Apple IPR for the term “mobile wallet.” Initially, the reference to page 26 of Dr. Shamos’s declaration involves limitation 1.1.1 “an integration tier operable to manage mobile wallet sessions.” (Motion at 6, citing Kang Decl. Ex. 12). There are no other references to the IPR cited by PayPal that involve any other asserted claim limitations. Dr. Shamos explained in his declaration that “[t]he ‘*mobile wallet sessions*’ of the claims, per the specification, involve mobile wallets on subscriber devices.” (Shamos Decl. at 26.) Dr. Shamos goes on to explain that (1) Petitioner’s expert, Dr. Houh fails to support his position that Dill taught the limitation, (2) the Money Transfer Facilitator 140 of Dill involved visiting web sites and entering transaction information and “not by interacting with any sort of mobile wallet,” and (3) even if Dill could be found to include a mobile wallet session, it did not manage, but only responded to commands. (*Id.* at 26-27.) It was in this context that Dr. Shamos discussed Dill. Therefore, I do not agree with Dr. Chatterjee that a clear and unmistakable disclaimer was made. The description of the mobile wallet application in the Fintiv patents clearly contradicts the assertions Dr. Chatterjee has made to support PayPal’s preferred definition of the term “mobile wallet” because the patents contemplate a mobile wallet with an application or web interface that “allows the user to interact with the mFS platform using their mobile device” (’845

Patent at 6:23-24). In paragraphs 35-39, Dr. Chatterjee performs his analysis on what Dill teaches. His statements do not appear to be relevant to the claim construction issue and therefore I do not provide rebuttal.

28. In paragraph 40, Dr. Chatterjee indicates that Fintiv argued the mobile wallet itself must be located on the subscriber device, rather than an application or web interface to a mobile wallet managed on a remote server or by a mobile network operator. However, this appears to be Dr. Chatterjee's opinion and not Dr. Shamos's since the claim term at issue did not involve "the mobile wallet itself," but instead involved mobile wallet sessions.

29. In my opinion, Dr. Chatterjee misreads the IPR response. The IPR at p. 10 states, "In fact, Dill discloses that parties access the transaction system not necessarily through a mobile application running on their mobile devices, but instead by visiting a website of a money transfer facilitator," where the distinction is clearly whether a mobile wallet application is present on the device. Therefore, I do not agree with Dr. Chatterjee's opinion regarding disclaimer in paragraphs 41-42.

30. At the time of the patent, the term "mobile wallet" was in common use and was used to describe several types of mobile services. Google Wallet, demonstrated in the early 2010s (<https://newsroom.mastercard.com/wp-content/uploads/2011/09/Google-Wallet-Announcement-FINAL-05-26-11.pdf>), used the MasterCard network to make contactless payment transactions with a mobile phone. Isis, announced its intention in 2010 (<https://www.verizon.com/about/news/vzw/2010/11/pr2010-11-16>) to develop a mobile wallet that, "ultimately eliminates the need for consumers to carry cash, credit and debit cards, reward cards, coupons, tickets and transit passes." An industry overview report from Bank of America

Merrill Lynch in 2011 named several companies that were developing what the analysts considered “mobile wallets” with a variety of functionality beyond merely payments. Ex. 1.¹

B. “Agent” - (’386 Patent Claims 1-3; ’196 Patent Claim 1)

Fintiv’s Construction	PayPal’s Construction
Plain and ordinary meaning	“an individual with mobile financial services (mFS) transaction system tools and training to support specific MFS functions”

31. In paragraph 43, Dr. Chatterjee appears to rely on an opposition to PayPal’s motion to dismiss and indicates that the motion has some impact on claim construction. However, since the motion is not part of the intrinsic record, it is unclear why the motion is relevant.

32. I do not agree with Dr. Chatterjee that the term agent should be restricted to a human. I disagree with Chatterjee’s proposed definition of “agent” because it is too narrow to encompass the usage of the term in the Fintiv patents. First, the Asserted Patents use the term “agent” to mean more than just an individual/human. For example, the ’386 Patent, claim 1 uses the language “entity,” not “human” to limit the term agent: *at least one entity* that is to be involved in the specified transaction, *the at least one entity* having a profile with the monetary transaction system: *wherein the at least one entity is the agent*; ’386 Patent, claim 1. The Asserted Patents’ specifications also use the term “agent” to encompass other entities such as businesses. *See e.g.* ’845 Patent at 14:27-32 (“Then, if funds are available, and the transaction is otherwise permissible, the monetary transaction system can transfer money or eMoney to or from an entity such as a user or agent (e.g. entity) to or from an establishment such as a retail store or agent company (e.g. entity).”).

¹ “Smart Phones vs. Dumb Cards”, Bank of America Merrill Lynch Industry Overview (March 25, 2011).

33. The '845 Patent explains that the term is much broader and can be found in “every facet of a typical economy” and “may include large retailers, *mobile network operators*, and other places of business.” See '845 Patent at 6:7-20.

34. An “agent” may indeed be an individual. However, the qualification in the remainder of the paragraph makes it clear that “agents” may also be “other companies and organizations.” Dr. Chatterjee understands this when he states that, “[t]he excerpt further describes that ‘agents’ can be ‘employees’ or ‘contractors,’ or ‘other companies and organizations,’ which, are all entities and associations.” However, Chatterjee ignores this when he proposes to define an “agent” solely as an “individual.” I disagree with Chatterjee’s proposed definition of “agent” because it is too narrow to encompass the usage of the term in the Fintiv patents.

35. Specific use cases described in the patents make it clear that organizations may act as “agents.” Fig. 11A in '845 depicts an employer making a direct deposit to a subscriber’s eMoney account. The '845 Patent describes this figure with the employer acting as an “agent” and directly initiating the direct deposit transactions in an automated batch process ('845 Patent at 21:36-41): “The monetary transaction system receives a list of eMoney accounts that are to be credited directly from the employer (or bank), processes the list and requests to establish a direct deposit, updates Subscriber's eMoney balance, log the transaction, and sends transaction details to the mFS platform bank.”

36. Fig. 11B in '845 depicts a welfare payment from a government account to a subscriber’s eMoney balance. As with the employer’s direct deposit, the '845 Patent describes this figure with the government acting as an “agent” and directly initiating the welfare payment transactions in an automated batch process ('845 Patent at 21:60-64): “The mFS platform receives an indication of eMoney accounts that are to be credited from the government, processes the

welfare payments, updates the subscriber's eMoney balance, logs the transactions, and sends transaction details to the mFS platform bank."

37. Dr. Chatterjee's proposed definition of "agent" is too narrow to encompass these uses of the mFS platform described in the patents. Chatterjee also argues spuriously that "agents" cannot be "software" based on an unsubstantiated assertion that this is Fintiv's position (para. 46). But there is no reason that an "agent" could not automate tasks in paragraphs 46 and 47 using software. In the examples of the employer direct deposit and government welfare payment, this is exactly what the patent describes.

38. I disagree with Chatterjee's argument that a POSITA would consider the term "agent" solely within the limited context of the few references that he cites in paras. 47 and 48. As I have described above, the term "agent" would be clear to a POSITA from the context in which it is used in the Fintiv patents. In addition, the term "agent" has a broader plain and ordinary meaning that any person would consider, "a person or business authorized to act on another's behalf" (Random House Dictionary of the English Language, Second Edition, Unabridged). This plain and ordinary meaning is both sufficient and appropriate for the term "agent" as it is used in the Fintiv patents.

39. Thus, the term "agent" is not limited to a human being, as PayPal proposes. PayPal references many portions of the patent specification, but nowhere is the word human used and nowhere does the patent explain that a human is required to accept cash.

40. In PayPal's Opening Brief, which cites to Dr. Chatterjee's paragraph 46 of his declaration, the Opening Brief argues that the terms "subscriber [depositing funds] at the agent branch" and "providing a perishable withdrawal code to the consumer, which is presented at the agent terminal" cannot consist of software because there must purportedly be some distinction

between software operating on a server or at a particular location. However, there are no requirements in the patent claim limitations that require software to be located at a particular location. Although the term “agent” may well indeed be an individual, “agents” may also be “other companies and organizations,” such as MNOs.

41. Specific use cases described in the patents make it clear that organizations may act as “agents.” Fig. 11A in the ’845 Patent depicts an employer making a direct deposit to a subscriber’s eMoney account. The ’845 Patent describes this figure with the employer acting as an “agent” that directly initiating the direct deposit transactions in an automated batch process. *See* ’845 Patent at 21:36-41 (“The monetary transaction system receives a list of eMoney accounts that are to be credited directly from the employer (or bank), processes the list and requests to establish a direct deposit, updates Subscriber’s eMoney balance, log the transaction, and sends transaction details to the mFS platform bank.”)

42. Fig. 11B in ’845 Patent provides an additional example. It depicts a welfare payment from a government account to a subscriber’s eMoney balance. As with the employer’s direct deposit, the ’845 Patent describes this figure with the government acting as an “agent” and directly initiating the welfare payment transactions in an automated batch process. *See* ’845 Patent at 21:60-64 (“The mFS platform receives an indication of eMoney accounts that are to be credited from the government, processes the welfare payments, updates the subscriber’s eMoney balance, logs the transactions, and sends transaction details to the mFS platform bank.”)

43. Dr. Chatterjee’s assertion that a POSITA would understand the term “agent” solely in light of the limited references he cites is not correct. The term “agent” was used more broadly at the time in the context of financial inclusion to mean organizations that partnered with a financial service provider (e.g. a bank) to provide banking services to customers. *See*

<https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Banking-Through-Networks-of-Retail-Agents-May-2008.pdf>. This broader definition of “agent” aligns with the plain and ordinary meaning of the word and is suitable for the use of the term in the patents.

a. Agent branch ('845 Patent Claim 1, '386 Patent Claims 1-2)

Claim Term	Fintiv's Proposed Construction	PayPal's Proposed Construction
Agent Branch	Plain and ordinary meaning	“any location where an agent provides support for subscriber services of the mFS platform.”

44. Dr. Chatterjee’s opinion regarding agent branch appears to be based on his opinion for the term agent. As a result, I incorporate my analysis for that term herein. In paragraph 49 Dr. Chatterjee references “agent locations,” but this does not address the claim term “agent branch.”

45. The '845 Patent explains that the “functionality can also be made available on a website for easier access.” '845 Patent at 6:54:60. Thus, I do not agree that a POSITA would find that an agent branch requires a physical location and note that the word physical is not in Dr. Chatterjee’s proposed construction.

46. I also disagree with Chatterjee’s argument that a POSITA would consider the term “agent branch” solely within the limited context of the single blog post that he cites in para. 49. As with the term “agent,” Chatterjee (para. 49) fails to consider the term “agent branch” in light of the description in the patents. In the use cases depicted in Figs. 11A and 11B, a POSITA would not presume that the physical location of the employer or of the government office would be of any importance in performing the direct deposit or welfare payment. And there is nothing in the description of these use cases in the patent that implies that the subscriber must be present at any particular location for these transactions to take place. The plain and ordinary meaning of a “branch” as a division of an organization is sufficient and appropriate (*See* <https://www.merriam->

webster.com/dictionary/branch) to qualify the term “agent branch” as it is used in the Fintiv patents.

C. “Unbanked Subscriber” - ('845 Patent Claims 1 and 5)

Fintiv’s Construction	PayPal’s Construction
Plain and ordinary meaning	“a subscriber that does not have a financial institution account.”

47. I do not agree with Dr. Chatterjee’s construction for the term unbanked subscriber. Dr. Chatterjee’s construction of the term “unbanked” is directly contradicted by the '845 Patent specification since the '845 Patent uses the language “does not have access to” at 12:25-27 (“An ‘unbanked subscriber’ is a subscriber that does not have (or *does not have access to*) a bank account or credit union account.”). Moreover, the '845 Patent explains that performing a specified transaction “may include communicating with the monetary transaction database 225 to determine whether the transaction is permissible based on data indicated in the unbanked subscriber’s profile (for instance, whether the subscriber has enough eMoney in his or her stored value account, *or has enough money in his or her bank account*).” '845 Patent at 14:19-25 (emphasis added). Thus, Dr. Chatterjee’s proposed construction is at odds with the '845 Patent specification that indicates that an unbanked subscriber may have a bank account.

48. I also do not agree with Dr. Chatterjee that Fintiv admitted during an IPR proceeding that a subscriber cannot have a bank account. The Patent Owner’s Preliminary Response (Kang Decl. Ex. 10) and Dr. Shamos’s Declaration (Kang Decl. Ex. 12) state that “in the '386 Patent, neither sender nor recipient *is required* to have an account at the financial institution.” I therefore do not agree with Dr. Chatterjee.

49. I disagree with Chatterjee’s assertion that a POSITA would understand that an “unbanked subscriber” must have absolutely no bank accounts whatsoever. The extrinsic evidence that Kang cites to support PayPal’s proposed definition of “unbanked subscriber” actually

contradicts Chatterjee's assertions in para. 54. Kang Decl. Ex. 14 makes no assertion that services for the unbanked shall not be offered to individuals who may have bank accounts. And in fact, such a restriction would be counter to the stated goal of the document to improve financial inclusion.

D. "payment handler" / "payment handler service" ('386 Patent Claims 1-3, '413 Patent Claims 1-2, '488 Patent Claim 1, '196 Patent Claim 1)

Fintiv's Construction	PayPal's Construction
Plain and ordinary meaning Alternatively, if means-plus-function: Function: operable to interact with payment processors. Structure: '386 patent claims 1-3 '413 patent claims 1-2 '488 patent claim 1 '196 patent claim 1 '386 Patent Figure 1 Corresponding '386 Patent Figures '386 Patent Figure 20A-J (data flow) '386 Patent Figure 21A-J (data flow) '386 Patent Figure 22A-J (data flow)'386 Patent Figure 22A-J (data flow) Provisional Application 61/493064 ("PA") (Figure 1) PA Figures 2A-E (Registration and Activation) PA Figures 7A-E (Deposit Cash) PA Figures 8A-8I (Withdraw Cash) PA Figures 9A-9G (Bill Payment) PA Figures 11A-11J (Money Transfer) PA Figures 1-11 '386 Patent 13:29-34. '386 patent 4:65-7:3.	This is a means-plus-function limitation. Function: "use APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors" ('386, '413) Function: "expose a common API for interacting with different payment processors" ('488, '196) Structure: None, and therefore indefinite under 112(f)

50. I do not agree with Dr. Chatterjee's opinion that the claim term is a means plus function term and that it is indefinite.

51. It is my opinion that the “payment handler service” component would be understood by a POSITA to describe a component of the “monetary transaction system.” It is my opinion that the claim limitation denotes sufficient structure to a POSITA. For example, the term “payment handler” was used in IETF RFC 2935 which was the subject of a public standards process and was published in September of 2000. At the time, the term was so well understood that the IETF RFC did not provide a specific definition beyond the plain and ordinary meaning. Moreover, the payment handler in the Asserted Patents is described as wrapping APIs from different payment processors and providing a common API. Application programming interfaces (APIs) are one way of defining the structure of a software component. The Payment Handler component 105 is shown clearly in Figure 1, which illustrates a monetary transaction system architecture. *See* ’386 Patent at 2:35-36.

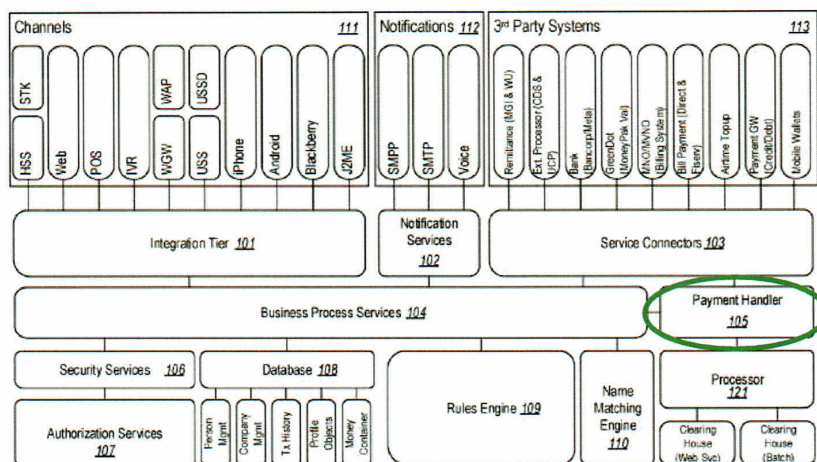


Figure 1

52. The architectural style apparent from the terminology used in Figure 1 is known as service-oriented architecture, which uses software components called services to create business applications where each service provides a business capability and can communicate with each other across platforms and languages. The ’386 Patent Claim 1 identifies these services:

“notification services,” “business process services,” “security service,” and “database services” are a few examples. *See* ’386 Patent Claim 1. According to Figure 1, Payment Handler Service 105 is connected to Processor 121, Business Process Services 104 and Service Connectors 103. The Payment Handler 105 is configured to wrap APIs of different payment processors, such as, for example, banking accounts, credit/debit cards or processor 121. Payment handler 105 exposes a common API to facilitate interactions with many different kinds of payment processors. *See* ’386 Patent at 13:29-34.

53. The Asserted Patents provide numerous data flows in the provisional applications and in the patent specifications including Figs. 20A through 22J of the ’386 Patent. *See also* ’386 Patent at 30:14-43. These data flows provide the actual communications to and from the payment handler and other service components.

54. Dr. Chatterjee does not address these figures at all. In paragraph 60, Dr. Chatterjee claims that the specifications “merely describe the function of the ‘payment handler’ and ‘payment handler service’ in overly generic terms without providing any details about a specific manner, such as an algorithm, for carrying out the functions.” Dr. Chatterjee’s opinion cannot be reconciled in view of the numerous data flows. The dataflows (*e.g.* Figs. 20A through 22J) in fact, show numerous examples of how the Payment Handler 105 interacts with other services in the mFS sufficient for a POSITA to find structure. For example, Figure 20C (shown below) discloses data flows between the Payment Handler and Business Process Service. *See* ’386 Patent at Figure 20C and 3:28-31. This is only one of many dataflows that show that a POSITA would understand that the specification of the Payment Handler Service / Payment Handler discloses structure. Indeed, when describing Figures 20A through 20F, 21A through 21I, and 22A through 22J, for example,

the '386 Patent explains that they “depict relationships between embodiments of various components within the monetary transaction system.” *See e.g.* '386 Patent at 30:14-43.

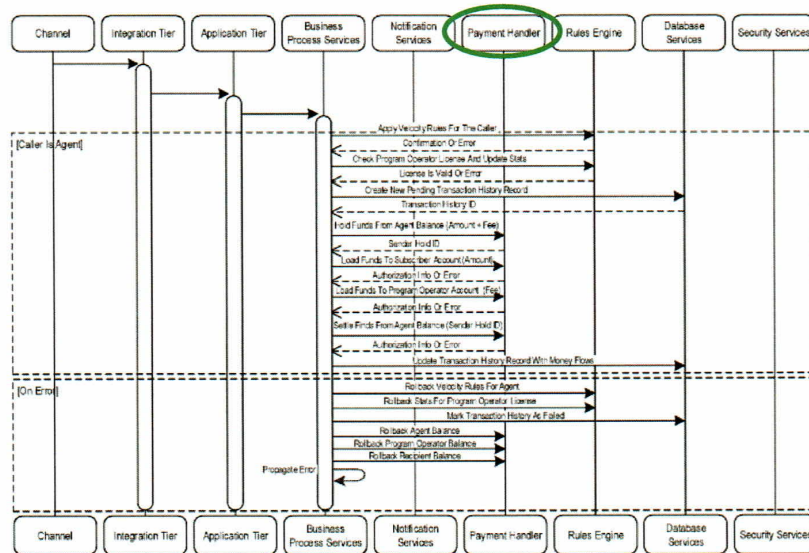


Figure 20C

55. Thus, a POSITA would understand when the limitation is read in view of the remaining claim language, including the other claimed components and specification, it provides sufficient structural meaning since the claims themselves describe how the Payment Handler operates within the claimed invention to achieve its objectives (*See* '386 Patent Claim 1):

- a **payment handler service** operable to use APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors;
- holding funds from the agent account balance using the **payment handler;**
- loading the funds to the subscriber account using the **payment handler;**

Similar claims are present in the other patents. Thus, the claim terms show that the payment handler uses APIs of different payment processors and holds and loads funds.

A POSITA would understand the claimed payment handler service / payment handler component to refer to computer circuitry and programming for processing data to perform operations. Even if the “payment handler” terms are found to be means-plus-function terms, they are not indefinite. The ’386 and ’413 Patents reasonably inform a POSITA about the structure of the claimed payment handler and the operations and algorithm involved in performing the recited functions. The data flows provided in the 61/493,064 provisional application and dataflows in the patent specifications are sufficient procedures for accomplishing the given result, which provides sufficient structure.

In paragraph 58, Dr. Chatterjee appears to be confused regarding wrapping APIs of different payment processors because it is unclear regarding where the wrapping would take place. However, Dr. Chatterjee overcomplicates the claim language which only seeks to allow the mFS to interact with payment processors.

E. “database services” / “storage system” (’386 Patent Claims 1-3, ’413 Patent Claims 1-2)

Fintiv’s Construction	PayPal’s Construction
Plain and ordinary meaning	This is a means-plus-function limitation
Alternatively, if means-plus-function:	Function: storing financial transaction details, store customer profiles, and manage money containers.
Function: operable to store at least financial transaction details, store customer profiles, and manage money containers	Structure: None, and therefore indefinite under 112(f)
Structure: ’386 patent claims 1-3 ’413 patent claims 1-2 ’386 Patent Figure 1 Corresponding ’386 Patent Figures ’386 Patent Figure 20A-J (data flow) ’386 Patent Figure 21A-J (data flow) ’386 Patent Figure 22A-J (data flow) ’386 Patent Figure 22A-J (data flow)	

Provisional Application 61/493064 (“PA”) (Figure 1) PA Figures 2A-E (Registration and Activation) PA Figures 7A-E (Deposit Cash) PA Figures 8A-8I (Withdraw Cash) PA Figures 9A-9G (Bill Payment) PA Figures 11A-11J (Money Transfer) PA Figures 1-11 ’386 Patent 13:39-51. ’386 Patent 4:65-7:3.	
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56. I also disagree with Dr. Chatterjee regarding the next term, since Dr. Chatterjee’s analysis is largely the same, I incorporate my analysis above for this term.

57. The database services / storage system is configured to manage customer accounts (e.g. storing customer accounts and properties), manage company accounts (e.g. storing company accounts and properties), manage transaction histories (e.g. storing financial transaction details), store customer profiles, storing dictionaries used by the mobile wallet platform, such as, for example, countries, currencies, etc., and managing money containers. *See* ’386 Patent at 13:39-46. It is my opinion that a POSITA would understand that this claim limitation denotes sufficient structure. For example, the ’386 Patent at 4:63-5:67 describes various means of implementing database services using, for example, cloud computing resources. A POSITA would readily understand what structures could be used to implement database services based on the examples provided in the patent.

58. The ’386 and ’413 Patents provide numerous data flows in the provisional applications and in the patent specifications including Figs. 20A through 22J of the ’386 Patent. *See also* ’386 Patent at 30:14-43. These dataflows (Figs. 20A through 22J) in fact, show numerous examples of how the database 106 interacts with other services in the mFS. For example, Figure 21I (shown below) discloses data flows between the Database Services and the Business Process

Services and Integration Tier. *See* '386 Patent at Figure 21I and 3:32-35. When describing Figures 20A through 20F, 21A through 21I, and 22A through 22J, for example, the '386 Patent explains that they “depict relationships between embodiments of various components within the monetary transaction system.” *See e.g.* '386 Patent at 30:14-43.

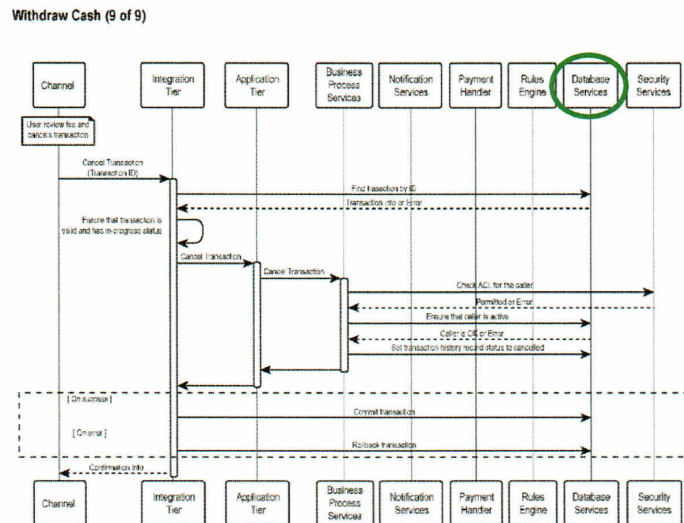


Figure 21I

59. Thus, a POSITA would understand when the limitation is read in view of the remaining claim language, including the other claimed components and specification, it provides sufficient structural meaning since the claims themselves describe how the Database Services / storage system component operate within the claimed invention to achieve its objectives. Claim 1 further discloses claim limitation that describe what the storage system does. *See* '413 Patent Claim 1:

- ensuring, via the **storage system**, that the subscriber has an active account;
- creating with the **storage system** a new pending transaction history record;
- updating, using the **storage system**, a pending transaction history record to reflect the funds.

60. '386 Patent Claim 1:

- validating the status of the subscriber's account, wherein validating the status of the subscriber's account comprises communicating from the integration tier to the **database services** to query attributes of the subscriber's account;
- upon receiving a confirmation of commitment from the business process services, committing the pending transaction to the **database services**; and
- ensuring, via the **database services**, that the subscriber has an active account;
- creating with the **database services** a new pending transaction history record;
- updating, using the **database services**, a pending transaction history record to reflect the funds.

61. Therefore, it is my opinion that this term provides sufficient structure by describing how it achieves its objective.

62. A POSITA would understand the claimed database services / storage system component refer to computer circuitry and programming for processing data to perform operations. Even to the extent the database services / storage system are found to be means-plus-function claims, they are not indefinite. The data flows provided in the 61/493,064 provisional application and dataflows in the patent specifications are sufficient procedures for accomplishing the given result, which provides sufficient structure.

F. "business process services" ('386 Patent Claims 1-3, '413 Patent Claims 1-2)

Fintiv's Construction	PayPal's Construction
Plain and ordinary meaning, not means plus function Alternatively, if means-plus-function:	This is a means-plus-function limitation. Function: implement business workflows, including at least one of executing financial transactions, auditing financial transactions,

Fintiv's Construction	PayPal's Construction
Function: implementing business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects. Structure: '386 patent claims 1-3 '413 patent claims 1-2 '386 Patent Figure 1 Corresponding '386 Patent Figures '386 Patent Figure 20A-J (data flow) '386 Patent Figure 21A-J (data flow) '386 Patent Figure 22A-J (data flow)'386 Patent Figure 22A-J (data flow) Provisional Application 61/493064 ("PA") (Figure 1) PA Figures 2A-E (Registration and Activation) PA Figures 7A-E (Deposit Cash) PA Figures 8A-8I (Withdraw Cash) PA Figures 9A-9G (Bill Payment) PA Figures 11A-11J (Money Transfer) PA Figures 1-11 '386 Patent 13:25-34. '386 patent 4:65-7:3.	invoking third-party services, handling errors, and logging platform objects Structure: None, and therefore indefinite under 112(f)

63. I also disagree with Dr. Chatterjee regarding the next term, since Dr. Chatterjee's analysis is largely the same, I incorporate my analysis above for this term.

64. I do not agree with Dr. Chatterjee that the claim term is a means-plus-function term since the claims themselves connote sufficient structure by describing how the "business process services" achieve the operation and objectives. In this case the term "business process services" would be understood by a POSITA to describe a component of the "monetary transaction system." It is my opinion that a POSITA would understand that this claim limitation denotes sufficient structure. Commercial off-the-shelf software that provided business process services was widely available at the time and a POSITA would have been able to implement this component using off-

the-shelf software. For example, Oracle offered business process services called Oracle Business Process Management in 2008 (<https://www.oracle.com/technetwork/middleware/bpm/overview/bpm-datasheet-132009.pdf>). This component is shown clearly in Figure 1 as 104, which illustrates a monetary transaction system architecture. '386 Patent at 2:35-36.

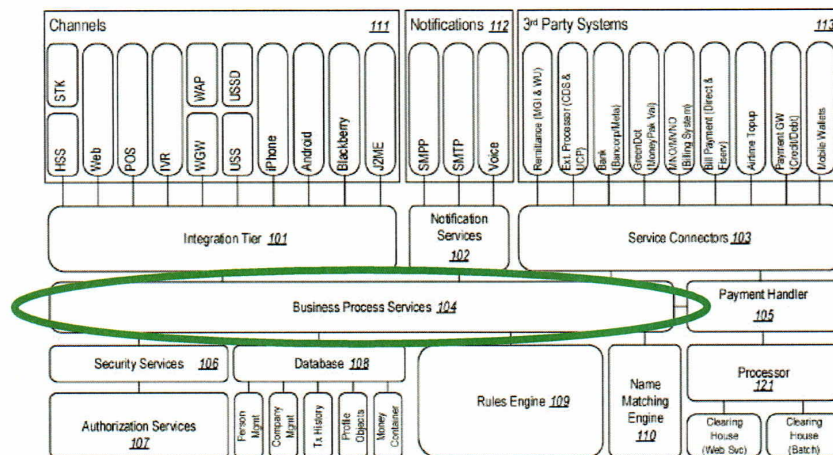


Figure 1

65. The architectural style apparent from the terminology used in Figure 1 is known as service-oriented architecture, which uses software components called services to create business applications and where each service provides a business capability and can communicate with each other across platforms and languages. The '386 Patent Claim 1 identifies many services: “notification services,” “business process services,” “security service,” and “database services” are a few examples. See '386 Patent Claim 1. The business process services component is responsible for “orchestrating” (i.e. coordinating) the interactions among other components in the mobile financial services (“mFS”) to complete specific business “workflows” (i.e. processes). The '386 Patent uses terminology from service-orientated architecture to describe the “business process services” component at Col. 13:25-29: “Business process services 104 are configured to implement

business workflows, including executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects.”

66. The '386 and '413 Patents provide numerous data flows in the provisional applications including Figs. 20A through 22J of '386. *See also* '386 Patent at 30:14-43. These dataflows (Figs. 20A through 22J provide example data flows showing numerous examples of how the business process services interacts with other services in the mFS. For example, Figure 20A (shown below) discloses data flows between the business process services and the Rule Engine, Application Tier, Database Services, and Security Services components. *See* '386 Patent at Figure 20A and 3:28-31. When describing Figures 20A through 20F, 21A through 21I, and 22A through 22J, for example, the '386 Patent explains that they “depict relationships between embodiments of various components within the monetary transaction system.” *See e.g.* '386 Patent at 30:14-17.

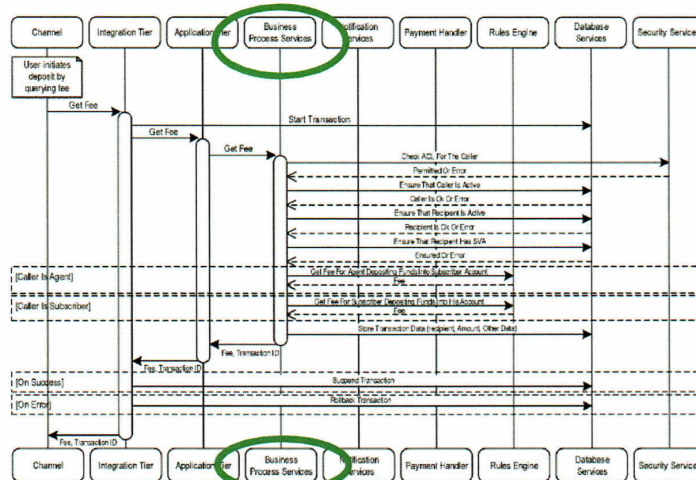


Figure 20A

67. Thus, a POSITA would understand when the limitation is read in view of the remaining claim language, including the other claimed components and specification, it provides sufficient structural meaning since the claims themselves describe how the “business process services” component operate within the claimed invention to achieve its objectives. For example,

claim 1 discloses a wherein clause that states “wherein saving the pending transaction further comprises the following steps *as orchestrated by the business process services*.” See ’413 Patent

Claim 1:

- a. ensuring, via the storage system, that the subscriber has an active account;
- b. validating, through communication with the security service, one or more of a PIN number and an access control list;
- c. applying with the rules engine, velocity rules;
- d. creating with the storage system a new pending transaction history record;
- e. holding funds from an agent account using the payment handler;
- f. loading the funds to the subscriber's account using the payment handler; and
- g. updating, using the storage system, a pending transaction history record to reflect the funds.

68. ’386 Patent Claim 1:

- a. committing a pending transaction through the business process services, wherein the integration tier communicates a transaction commitment request to the business process services;
- b. receiving a confirmation from the business process services that the pending transaction has been committed;
- c. sending, through the notification services, a receipt notification to the mobile device; and
- d. upon receiving a confirmation of commitment from the business process services, committing the pending transaction to the database services; and

- e. wherein committing the pending transaction further comprises the following steps as orchestrated by the business process services:
- f. ensuring, via the database services, that the subscriber has an active account;
- g. validating, through communication with the security services, one or more of a PIN number and an access control list;
- h. applying with the rules engine, velocity rules;
- i. creating with the database services a new pending transaction history record;
- j. holding funds from the agent account balance using the payment handler,
- k. loading the funds to the subscriber account using the payment handler; and updating, using the database services, a pending transaction history record to reflect the funds.

69. A POSITA would understand the claimed “business process services” component to refer to computer circuitry and programming for processing data to perform operations.

70. Even to the extent, the “processing component” terms are found to be means-plus-function claims, they are not indefinite. The ’386 and ’413 Patents disclosure reasonably informs a POSITA about the structure of the claimed business process services component and the operations and algorithm involved in performing the recited functions. Indeed, the data flows provided in the 61/493,064 provisional application and dataflows are procedures for accomplishing the given result, which provides sufficient structure.

G. “Presented to” (’488 Patent Claim 1, ’196 Patent Claim 1)

Fintiv’s Construction	PayPal’s Construction
Plain and ordinary meaning	“displayed to or placed near”

71. I do not agree with Dr. Chatterjee’s opinion regarding the term “presented to.” This construction makes the same arguments as “agent” where a human being is required and I

therefore incorporate by reference my opinion for this term. Dr. Chatterjee does not cite to anything in the intrinsic record that would allow the importation of claim terms or justify limiting the term to displaying. Leaving no doubt, the '488 and '196 specifications do not include the words "displayed to" or "placed near" anywhere in the specification. The claims terms do not include any such limitations.

72. I disagree that a POSITA would interpret the phrase "presented to" solely in light of the limited references that Chatterjee cites in para. 70. Chatterjee ignores the plain and ordinary meaning of the word "present" in the references provided by PayPal: "to give or bestow formally" (Kang Decl. Ex. 17) and "to bring, offer, or give, often in a formal or ceremonious way" (Kang Decl. Ex. 18). These meanings are clearly more appropriate to the case of a code presented to an agent as described in the Fintiv patents.

73. Chatterjee (para. 70) states that "[t]he provisional patent applications also describe showing a QR code and potentially using an NFC device to present the perishable code to an agent." The "code" described in the Fintiv patents is merely information and is not described as having a fixed form. The "code" is not required to have a visual representation nor a physical form when it is communicated from the mFS to the subscriber.

74. Although the provisional patents mention using QR codes or NFC as a means of communicating the code to the agent, there are no such restrictions in the patents. The examples of QR codes and NFC are merely conveniences to facilitate the communication of this code from the subscriber to the agent. Given that the patents remain silent on the means of communicating the code from the subscriber to the agent, a POSITA would understand that many means of communicating the code may be possible or suitable, including having the subscriber verbally

communicate the code to the agent or having the subscriber manually enter the code on the agent terminal or even on an agent's web site.

75. Chatterjee's proposed construction of "presented to" is inappropriate because it implies that the code must be represented in a visual form or embodied in a physical form where there are no such restrictions in the patents.

76. It is my opinion that a POSITA would not understand the term "presented to" to require a UI or physical form where there are no such restrictions in the patents.

Dated: November 9, 2022


Karl Johnson

APPENDIX A