IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

CardWare Inc.,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Civil Action No. 1:25-CV-00446-ADA
	§	
Apple Inc.,	§	JURY TRIAL DEMANDED
	§	
Defendant.	§	
	§	
	§	
	§	

CARDWARE'S SUR-REPLY CLAIM CONSTRUCTION BRIEF

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TABLE OF SELECTED CLAIMS

Claim	Claim Language
U.S. Patent No. 10,339,520	
10[pre]	A method of storing and generating payment information in an electronic device, the method comprising:
10[a]	accepting a user input of issued payment information input at a touch screen display of the electronic device, wherein the information comprises an issuer provided payment information;
10[b]	wherein the electronic device comprises device-specific and user-specific information; and,
10[c]	wherein the issuer provided payment information is communicated wirelessly; and,
10[d]	receiving wirelessly a static device account number payment information for storage on the electronic device; and wherein
10[e]	at least a portion of the payment information is a limited-use number for limited use by the device, in place of a issuer provided payment information; and,
10[f]	dynamically generating a one-time limited-use number based on at least one of a set of information including: user-identifying information; user secrets; device information; device secrets; time; merchant; facility location; sequence count; payment information; account information; amount; and transaction information; and
10[g]	using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction.

I. INTRODUCTION

The patents-in-suit describe multiple types of payment information because that is the nature of this invention: replacing issued payment information (*e.g.*, a traditional credit card number) with more secure replacement information that generally includes: (1) a static portion (*e.g.*, a device account number) that is wirelessly received and stored on the device, and (2) a limited-use portion that is dynamically generated by the device itself (based on various inputs). The claims and technology are complex, given the various pieces of information at issue and the various ways in which they are received, generated, and transmitted to payment authorities. But they are not indefinite, as Judge Payne already held with respect to certain disputes herein. In every instance, when read in context of the intrinsic record as a whole, the scope of the claim terms and their antecedent bases are clear, and there is no clear deviation from the plain meaning of claim terms. CardWare further explains that context and logic below.

II. ARGUMENT

A. Dr. Polish's Declarations Are Not Relevant To This Case

Just because Dr. Polish might have "years of experience" does not mean he has anything relevant to say as it concerns the particular claim construction disputes in this case. Courts may only allow experts to "explain terms of art, and the state of the art"; expert testimony "cannot be used to prove the proper or legal construction of any instrument of writing." *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 332 (2015) (citations omitted). Dr. Polish's Opening Declaration does not touch on technical terms, or even terms that have some particular meaning in the art. Rather, his Opening Declaration is rife with English language grammar analyses, and (often incorrect) discussion of legal principles. *See, e.g.*, D.I. 43-8 ("Op. Decl."), ¶¶ 27, 60-63. Accordingly, the Court should not consider Dr. Polish's testimony.

B. U.S. Patent No. 10,339,520: "the payment information" (claim 10)

Apple misunderstands claim 10 and misstates CardWare's position. D.I. 53 ("Reply") at 1–4. To avoid any doubt, the disputed "payment information" term refers to the *complete replacement* payment information used for purposes of completing a "payment transaction." In other words, the idea of claim 10 is to replace "issuer provided payment information" (*e.g.*, a traditional credit card number) with more secure replacement payment information including two portions: (i) a static device account number and (ii) a dynamically-generated one-time limited use number. With this invention, a would-be fraudster never sees, and cannot electronically intercept, the underlying credit card number, and also cannot use the replacement payment information for any illegitimate purpose (given its device-limited and one-time limited use attributes). The disputed phrase refers to this complete replacement payment information, as CardWare has explained all along. *See* D.I. 52 ("Resp.") at 6. It is not indefinite because it finds its antecedent basis in the preamble, just as Judge Payne held in the *Samsung* case, after rejecting effectively the same indefiniteness arguments that Apple is now making. D.I. 52-1 at 23.

CardWare did not, and has never, argued that "the payment information" refers to just "generated payment information," as Apple repeatedly misstates throughout its reply. Reply at 1. Yes, the preamble is the antecedent basis for the disputed phrase, and the preamble includes the word "generating." But the whole preamble recites, "[a] method for <u>storing and generating payment information</u> in an electronic device . . . ." Again, the disputed "payment information" term (*i.e.*, the complete replacement payment information) has two portions, one is the "static device account number," which is "stored," per limitation 10[d], and the other is the "dynamically generat[ed] [] one-time limited-use number," per limitation 10[f]. Together, the stored portion and the generated portion make up the "payment information" recited in the preamble (*i.e.*, "storing and generating"), which is recited again in the disputed limitation 10[e]. It all lines up and is

consistent with the preamble. Accordingly, the entire premise of Apple's Reply—that the parties "do not dispute that 'the payment information' could refer to 'generated payment information,'" is wrong. Reply at 1.

Apple nonetheless argues that "the payment information" could alternatively refer to "static device account number payment information" and that it is therefore indefinite. Reply at 1–2. Apple's positions are incorrect, and its reasoning is belied by claim 10 itself.

First, Apple disputes CardWare's position that "every time the claim refers to static device account number payment information, it says so," arguing that there is "no such certainty in the claims." *See* Reply at 2; Resp. at 8 (citations omitted). But claim 10 refers to "said static device account number" in limitation 10[g] when referring back to the "static device account number payment information" of limitation 10[d]. Apple does not explain why the claim would recite "said static device account number" in one instance, but use "payment information" when referring to it in another instance. The best argument that Apple can muster is that, if claim 10 were really this clear, it might refer to "the generated payment information" rather than just "payment information." *See* Reply at 2. But, again, the entire premise of Apple's argument is wrong because "the payment information" does not refer to just "the generated payment information." Nor has CardWare ever so argued. Moreover, when the claim refers back to the dynamically generated one-time limited use number, it says as much. *See* limitation 10[f] (referring to "said dynamically generated one-time limited-use number"). And the disputed phrase in limitation 10[e] does say "the payment information" when referring back to "payment information" in the preamble. In other words, the patent is consistent and clear with its antecedent basis references; when the patentee wanted to refer to the "static device account number," he said so.

Second, Apple mischaracterizes CardWare's explanation that the disputed phrase

"payment information" has "portion[s]," such that it cannot refer to the "static device account number." *See* Reply at 2; Resp. at 8. To recap, limitation 10[e] provides that "at least a portion of the payment information is a limited-use number for limited use by the device." That language provides several contextual clues, including (1) the disputed "payment information" term can have portions; and (2) "the payment information" is not the same as a "portion" of itself.

Limitation 10[g] then specifies that both "said static device account number and said dynamically generated one-time limited-use number" are used together "for making a payment transaction." Accordingly, "said static device account number" and "said dynamically generated one-time limited-use number" are each "portion[s]" of the aforementioned complete replacement payment information "for making a payment transaction." It all lines up. Because the disputed phrase "the payment information" in limitation 10[e] cannot be a portion of itself, it cannot be the same as "said static device account number."[1] Rather, as Judge Payne held, the "payment information," both in the preamble and in limitation 10[e], refers to the complete payment information used in "ultimately 'making a payment transaction.'" D.I. 52-1 at 23; Resp. at 5–7.

Finally, Apple is wrong that claim 21 of the '538 patent supports its position that "payment information" in claim 10 of the '520 patent could refer to the "static device account number."[2] Rather, claim 21 of the '538 patent is consistent with claim 10 of the '520 patent; in both claims, the "static device account number" is a "portion" of the complete replacement information.

Claim 21 of the '538 patent depends from claim 19, which itself does not require a static device account number. Rather, claim 19 requires, *inter alia*, (i) "generating at least one limited-

[1] Apple is wrong that CardWare "concede[d] that a 'portion' of 'static device account payment information' is used 'in the place of issuer provided payment information,' as set forth in the last limitation of claim 10." *See* Reply at 2. CardWare never stated this. Apple cites nothing in support.
[2] Apple mentioned Claim 21 of the '538 patent in a citation in its Brief, but did not make the argument it now makes, or explain what it had to do with claim 10 of the '520 patent. *See* D.I. 43 ("Br.") at 8.

use numbers . . . and using said limited-use number in place of at least a portion of selected account issuer payment information," and (ii) "combining said at least one limited-use numbers, with said selected account information, to form a complete payment information." Accordingly, in claim 19, there is a generated "limited-use number" that, combined with selected account information, constitutes "complete payment information," which replaces "issuer payment" information.

Claim 21 adds that "at least a portion of said limited-use number comprises a static device account number." This shows that the "static device account number" is a *portion* of the complete payment information used in the transaction. In other words, in claim 19, the replacement information is referred to as "complete payment information." Per claim 19, that "complete payment information" includes a "limited-use number," which, in turn, and per claim 21, "comprises a static device account number." The "static device account number" is therefore a *portion* of the compete replacement information, just the same as in claim 10 of the '520 patent (where the "static device account number" is a portion of the "payment information" used in the payment transaction). Apple's own explanation and highlighting shows this. Indeed, Apple states that "a 'portion' (yellow) of the 'limited-use number' (blue) could be comprised by [*sic*, of] the 'static device account number' (green)." Reply at 3. Apple is correct in the sense that a "portion" of the "limited-use number" is the "static device account number." Claim 21 literally says as much. *See also* '538 patent at 23:65–24:4. That is all consistent with claim 10 of the '520 patent, which provides that the "static device account number" is a portion of the complete replacement "payment information" that is ultimately used in the transaction.

In sum, Apple confuses the claims and CardWare's argument and ignores Judge Payne's prior ruling. As Judge Payne already held, the "payment information" is not indefinite. It refers to the same "payment information" term in the preamble and "encompass[es] the various recitals

of 'information' involved in ultimately 'making a payment transaction.'" D.I. 52-1 at 23. This Court should hold the same.

C. Multiple Asserted Patents

1. Alleged "Markush Group Claim Terms" (All Asserted Patents)

Apple bears the burden of proving indefiniteness by clear and convincing evidence. Apple's Brief asked the Court to wholesale invalidate more than 40 different claims,[3] effectively for no reason other than that they do not use the transition phrase "consisting of" in what Apple lumped together as *Markush*-like claims. Br. at 9–13. Apple did not cite any Federal Circuit decision holding claims to be invalid on these grounds, save *In re Kiely*, an appeal from an patent application rejection that did not involve the same burden of proof and where the "comestible kit" claim at issue recited, "a selection from the group comprising a person, an animal, an animated character, a creature, an alien, a toy, a structure, a vegetable, and a fruit."[4] *In re Kiely*, No. 2022-1076, 2022 WL 2062163, at *1 (Fed. Cir. June 8, 2022). The Federal Circuit affirmed the Board's rejection, "[g]iven the breadth of variation among the specified alternatives," including a "vegetable" vs. an "alien." *Id.* at *2. Aside from this, Apple relied on a declaration from its expert Dr. Polish, but he only specifically analyzed two of those claims, and testified that he simply presumed that any *Markush*-style claim was indefinite if it did not use a "proper" transitional phrase. *See* Op. Decl., ¶ 50; D.I. 52-2 ("Polish Tr.") at 191:14–22.

As such, Apple has fallen far short of meeting its burden. The vast majority of cases have declined to hold claims indefinite simply because they use non-standard transitional language. *See Lexington Luminance LLC v. Amazon.com Inc.*, 601 F. App'x 963, 969 (Fed. Cir. 2015) (reversing

[3] Apple has withdrawn its argument as to the '634 patent, claim 10. Reply at 6, n.1.
[4] Apple also cited a 2017 Eastern District of Texas decision, *Blue Spike, LLC v. Verimatrix, Inc.*, but subsequent Eastern District of Texas cases have come out the other way, as have several other district courts, as per the cases that CardWare cited in its Response. *See* Resp. at 12.

district court and holding that a *Markush* claim is definite so long as the "meaning of the contested claim language" is "reasonably ascertainable."); *see also* Resp. at 12 (collecting cases). Moreover, CardWare submitted a responsive declaration from Dr. Michael Goodrich that, notwithstanding Apple's complaints, opined on a POSITA's understanding of the word "set" and, with this background, analyzed every claim in detail, and considered the intrinsic record as a whole. D.I. 52-3 (Goodrich Decl.), ¶ 27. He concluded that the claims would not have been indefinite to a POSITA. *Id.*

Apple does no better on Reply. It again cites cases discussing Patent Office procedure on prosecuting *Markush* claims. But, courts must analyze the definiteness of a claim, "not whether it recites an 'improper' *Markush* group" according to Patent Office procedure. *Lexington Luminance*, 601 F. App'x at 968. Aside from this, Apple (i) relies heavily on Dr. Polish's new Reply Declaration (D.I. 53-1), which should be stricken (as per CardWare's separate motion, D.I. 60), and (ii) otherwise spends its pages criticizing Dr. Goodrich's analysis. As set out below, Apple's additional arguments and criticisms do not demonstrate indefiniteness of more than 40 claims.

a) Dr. Goodrich's Analysis Shows that a POSITA Would Understand the Scope of the At-Issue Claims

Apple asserts that Dr. Goodrich "never considers whether any claimed set might include non-enumerated alternatives." Reply at 5. That is wrong. Dr. Goodrich expressly analyzed the claim language "in the context of the Asserted Patents," including their specifications and file histories, to determine whether a POSITA would understand that non-enumerated members would be included in the set. *See, e.g.*, Goodrich Decl., ¶ 41; Ex. A ("Goodrich Tr. (II)") at 16:7–15. He determined that the Applicant's recitation of the term "set" would "indicate to a POSITA a closed, finite group[,] and when that term is followed by a listing of the set's elements, then this would be

understood by a POSITA to be [the] complete listing of the elements of the set." *See e.g.*, Goodrich Decl., ¶¶ 57–60. Apple ignores this analysis, and claims that Dr. Goodrich's understanding of the term "set" is merely a "presumption," instead of an understanding informed by over 40 years teaching the at-issue subject matter. *See* Reply at 11; *see, e.g.*, Goodrich Decl., ¶ 57. In this specific context, the term "set," the other claim language, and the disclosure of the specification all indicated a closed group. *See e.g.*, D.I. 53-3 ("Goodrich Tr. (I)") at 24:13–23; Goodrich Decl., ¶¶ 57–60, 63–66.

Apple further argues that "Dr. Goodrich could not explain any distinctions between sets, lists, and groups in the context of the asserted patents." Reply at 6. Not so. Dr. Goodrich stated that differences exist between sets, groups, and lists and that difference is context specific. Goodrich Tr. (I) at 18:6–18, 18:25–19:4. Importantly, Dr. Goodrich explained that, in the context of the specification and the field of the invention, a POSITA would understand that the use of the term "set" would indicate a group closed to non-listed alternatives. *Id*. at 24:13–23. As Dr. Goodrich noted, given an appropriate context of any given term, determining whether that term falls within the scope of the sets is "simple" because the sets are "closed." *Id*. at 41:19–42:8. Dr. Polish did not perform this analysis in his Opening Declaration.

b) The Court Should Disregard Dr. Polish's New Reply Declaration Both Because it is Late and Fundamentally Unfair and Because it Applies the Wrong Standard

Dr. Polish's Reply Declaration is fundamentally unfair. The Court should disregard it.

Apple could have, and should have, elicited all of these opinions from Dr. Polish in connection with its Brief. Dr. Polish's Opening Declaration did not provide any analysis for the majority of the more than 40 disputed claims, and otherwise simply assumed that claims are indefinite when they do not use "consisting of" in transitional phrases to introduce a set. *See* Resp. at 10–11. CardWare submitted its Response and deposed Dr. Polish based on this. He now tries

a redo in his Reply Declaration, and Apple heavily relies on it for the majority of its evidence. For example, Apple asserts that "Dr. Polish has identified examples of non-enumerated alternatives that may fall within every claimed set." Reply at 5. But Apple *only* cites Dr. Polish's Reply Declaration. *Id.* He did not do that analysis in his Opening Declaration submitted with Apple's Brief. *See* Resp. at 10; Op. Decl., ¶¶ 49–58. The Court should strike Dr. Polish's Reply Declaration and Apple's positions that exclusively rely on it, as per CardWare's pending motion to strike (D.I. 60), because this is not how litigation in this, or any, Court should proceed.

In any event, Dr. Polish's Reply Declaration fails to demonstrate indefiniteness, even if the Court considers it. First, he starts from an incorrect standard, presuming that the claims are open-ended and therefore not "proper." Reply Decl., ¶ 9. From there, he tries to determine whether he can find a definite meaning, as if the claim is presumptively indefinite. *Id.*, ¶ 13 ("Once I determine that a set or group is presumptively open-ended because of the transition phrase used, I attempt to determine whether other context would allow me, as a person of skill in the art, to determine the bounds of the open-ended set or group."). He then purports to analyze "whether a set or group enumerates all possibilities, and therefore cannot possibly include other enumerations, even though the group is open-ended." *Id.* But "all possibilities" is not the standard; the question is whether "***the written description*** provides a clear description of the [elements] that are part of the claim." *See Lexington Luminance*, 601 F. App'x at 968 (emphasis added). Indeed, from Dr. Polish's incorrect starting position, the result under this standard is, of course, pre-ordained. A paid litigation expert could always come up with *some* possibility, untethered to the specification, that might superficially fit within the set.

This is just what Dr. Polish does. For example, with respect to claim 10 of the '520 patent, he imagines that a "set of information" could include "information pertaining to the category of

product or service being purchased." Reply Decl. ¶ 23. But the specification does not talk about a "product or service being purchased[;]" Dr. Polish is just brainstorming about things that could also be a "set of information" in order to justify his pre-determined indefiniteness conclusion, all of which started with the legally incorrect presumption of indefiniteness. The same is true with respect to claim 15 of the '579 patent (the only other claim Dr. Polish actually analyzed in his Opening Declaration). *See* Op. Decl., ¶ 57. There, he imagines another type of user-interface that is not part of the "set": a "barcode with a camera." Reply Decl., ¶ 208. Again, this is untethered to the patent specification. Nor does he cite anything for the idea that this might be part of the claimed set, or why it is even a "user interface." *Id.* Neither of those conclusions have support in the intrinsic record. While Dr. Polish's 116-page Reply Declaration is too lengthy to address in further detail in this limited sur-reply brief (one of the reasons this is unfair and should be disregarded), a review of his paragraphs of supposedly non-enumerated items (*see* Reply Decl., ¶ 18A) shows that he uses this same flawed approach with effectively all claims.

In essence, Apple has zero evidence of indefiniteness of these terms outside of Dr. Polish's declarations. Dr. Polish's Opening Declaration applied the wrong standard (presuming indefiniteness) and failed to address the vast majority of the claims. His Reply Declaration is unfair and should be stricken. But even if not, he still applies the wrong analysis, presuming that the claims are indefinite, and brainstorming to see if he can find some plausible item that could fall within the set, regardless of whether that item is connected to the disclosed invention. On the other hand, Dr. Goodrich analyzed every claim (in a timely declaration) and concluded the claims are definite. That is the relevant evidence in the record. Apple did not meet its burden.

2. "limited-use" (All Asserted Patents)

There is no basis to construe "limited-use" as just a limitation on duration or number of transactions. That is not the plain meaning of the term, and Apple cites nothing in the record to

suggest it should be different. *See* Br. at 14–16; Reply at 8–10. On the other hand, CardWare provided numerous examples of other types of limitations (facility, device-based, etc.) that are captured within the "limited-use" concept. *See* Resp. at 16–17. These types of limitations on use cannot be read into the construction of the term "limited-use" or redefine its plain meaning . *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1350 (Fed. Cir. 2014), *vacated on other grounds*, 575 U.S. 959, 959 (2015) (even "using a term the same way in all disclosed embodiments is not by itself sufficient to redefine a term of art"); *EPOS Techs. Ltd. v. Pegasus Techs. Ltd.*, 766 F.3d 1338, 1341 (Fed. Cir. 2014) ("[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.").

Further, Apple's only argument concerns a different term, "limited-duration." *See* Reply at 8–9. There is no "clear indication" in the Asserted Patents that "limited-use" should have the same meaning as "limited-duration." *See EPOS*, 766 F.3d at 1341. To the contrary, the specification treats them differently, reciting methods for generating the "limited-duration credit card number" that are "*for the purpose of creating* ***a*** limited-use credit card number" and further discloses that "uniquely generat[ing] a limited-duration credit card number . . . *enables* ***a*** per-transaction, limited-use credit card number." *See* '520 patent at Abstract, 2:24–29; 11:67–12:15 (emphases added); '820 patent at Abstract, 2:28–30; 12:61–13:10; '579 patent at Abstract, 2:23–28; 11:67–12:15; '538 patent at Abstract, 2:25–29; 12:28–45; '286 patent at Abstract, 2:33–37; 13:1–18; '634 patent at Abstract, 2:28–32; 12:39–56; *see also* Resp. at 16–17.

The Court should reject Apple's attempt to read in limitations from the specification (concerning a different term) into "limited use."

3. Alleged "Printed Matter Terms" ('520, '820, '579, and '286 patent)

All of the terms Apple identifies should be afforded patentable weight because they are directed to (1) substrates *devoid* of information or (2) the act of communication, and have functional relationships with the underlying systems.

a) The Absence of Information is not Printed Matter

"[A] limitation is printed matter only if it claims the *content of information*." *In re Distefano*, 808 F.3d 845, 848 (Fed. Cir. 2015) (emphasis added). Contrary to Apple's arguments, claiming the *absence* of information is not the same as affirmatively claiming the *content* of information and is not printed matter. *See* Reply at 10. The claims at issue here do not claim the content of information—quite the opposite, they claim the *absence* of information that was present on prior art card devices. '820 patent at 1:65-2:7; '286 patent at 2:4–8.

Apple argues that "use of a 'limited-use' number in place of a fixed payment number provides the same security benefit" regardless of the presence of fixed payment numbers. *See* Reply at 11. Not so—a card device without fixed payment numbers provides a different, though complementary, functionality to the card device compared to the limited-use payment information. Conventional cards with fixed payment numbers are "susceptible to theft" and "have security limitations," and so the '820 and '286 patents aim to fix this problem by creating a card without fixed payment numbers. '820 patent at 2:1-3, Fig. 11; '286 patent at 2:4–9, Fig. 11; *see also, e.g.*, '820 patent at 9:58–60 ("[T]here are many ways for a malicious third-party to record the account number of a credit card in order to later make fraudulent transactions on the account."); '286 patent at 9:65–67. The absence of fixed payment numbers ensures that "[o]nly the [limited-use payment information] generated at the instant the [claimed systems are] being used matters" because the absence of fixed payment numbers on the payment card device prevents circumventing the limited-use payment information generated and transmitted by the device. *See* Resp. at 21, *see also* '820

patent at 11:36–45, 18:1–6; '286 patent at 11:42–51, 18:9–14. Thus, the absence of fixed payment information "interacts with the other elements of the claim" (*e.g.*, the limited-use number and card shaped device) to "create a new functionality" (*e.g.*, to create a more secure credit card whose information cannot be stolen by illicitly reading fixed payment numbers)—it is not printed matter. *See C R Bard Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372, 1381 (Fed. Cir. 2020); *In re Gulack*, 703 F.2d 1381, 1387 (Fed. Cir. 1983) (finding that digits printed on a band are not printed matter).

b) Methods of Communication are not Printed Matter

Printed matter does not cover "the act of a communication itself." *IOENGINE, LLC v. Ingenico Inc.*, 100 F.4th 1395, 1404 (Fed. Cir. 2024). Apple ignores this law and argues that communicative steps like "displaying," "transmit[ting]," and "rendering" information are printed matter, conflating these actions with the content of the communicated information. *See* Reply at 11–12. The disputed limitations do not claim information for its communicative content—they do not specify what content is being communicated at all. *See* Resp. at 22–23. For instance, claim 1 of the '579 patent claims displaying (*i.e.*, communicating) "a card issuer payment method selection." '579 patent at 19:3-4. Similarly, claim 14 of the '520 patent claims rendering "the payment method types stored in the electronic device." '520 patent at 17:53–55.

Such acts also have a functional relationship to the claimed systems. For instance, claim 14 of the '520 patent depends from claim 10, which recites a method including the step of "accepting a user input of issued payment information [that] comprises an issuer provided payment information." '520 patent at 17:8–13. Claim 14 then recites "rendering on the display . . . the payment method types stored in the electronic device"—*i.e.*, corresponding to the issued payment information inputted in claim 10. *Id.* at 17:53–60. "[R]endering" then enables the user selection step of claim 15 by conveying payment methods in formats that a user can view, select, and use to make a transaction. *Id.* at 17:61–65. This rendering, like the act of displaying in *Hafeman*, is

"functionally related" to the device, and is therefore not printed matter. *See, e.g.*, *Hafeman v. LG Elecs., Inc*., No. 6:21-CV-00696-ADA-DTG, 2023 WL 2978968, at *8 (W.D. Tex. Apr. 17, 2023) (functional relationship between recovery information on a screen and the purpose of the invention). Apple's arguments regarding all of the at-issue claims—'520 patent, claim 14 ("rendering"); '579 patent, claims 1 ("displaying"), 9 ("displaying"), and 15 ("displaying"); and '286 patent claim 10 ("transmit[ing]")—are the same and fail for the same reasons.

D. U.S. Patent No. 10,628,820: "the system of claim 15 . . . comprising . . . a user input providing for at least one user action . . ." (claim 20)

The disputed limitation merely establishes functional capabilities of a system claim; it does not create a hybrid method and apparatus claim. *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 876 F. Supp. 2d 1141, 1149–52 (N.D. Cal. 2012) (distinguishing *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005)); *Freedom Wireless, Inc. v. Alltel Corp.*, No. 2:06cv504 (TJW–CE), 2008 WL 4647270, at *14 (E.D. Tex. Oct. 17, 2008). "It is well-established that for a limitation to introduce a method step, the limitation must require action, or 'actual use' of something instead of merely requiring or setting forth a particular capability." *Eolas Techs., Inc. v. Adobe Sys., Inc*., 810 F. Supp. 2d 795, 812 (E.D. Tex. 2011) (citing *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1374–75 (Fed. Cir. 2008)). Here the disputed limitation does not require "action" or "actual use" and is not a performed step. Instead, it clarifies that a structure ("a user input") allows for the functional capabilities ("providing for") of a "user action" of "approving," "denying," or "adjusting" the transaction via the user interface.

Apple misconstrues CardWare's position: CardWare is not arguing that "a user input" is one of the "a user-interface element[s]" described in the preamble. *See* Reply at 13–14. Instead, "a user input" is "a" structure whose functional capabilities of "approving," "denying," or

"adjusting" are related to the "user-interface element[s]" of the preamble ("via the user interface"). Resp. at 24–25. Moreover, Apple's understanding would require reading in the additional term "entering" into the claim. This is inconsistent with the language of the claim and the '820 patent specification, which describes a variety of user input structures. Reply at 13-14. The claim does not require the entering of an input; instead, it describes the structure of "a user input." The specification supports this structural understanding. *See* '820 patent at 6:15-17 ("A user input may be made via the touch sensor array 245, which may comprise a touch screen panel, a keypad, or a combination thereof."); Fig. 8 (disclosing a touch screen panel).

Apple's citations to other portions of the specification are irrelevant. *See* Reply at 13–14. While the step of entering a user input is generally described in other embodiments of the specification, *e.g.*, '820 patent at 12:64-66 (describing "receiv[ing]" a user input), 12:64-66 ("enter[ing] a user input"), the plain language of the claim does not require a "a user input" to be entered. Instead, "a user input" enables ("providing") a "user action" that can be taken "via the user interface." It is not a method step.

E. U.S. Patent No. 10,810,579: "the method of claim 1 wherein a payment processing authority verifies a limited-use number . . . and rejecting a limited-use number" (claim 6) [5]

There is nothing indefinite in CardWare's use of the term "a limited-use number." Each time "a" limited-use number is introduced, it is just that, "a" limited-use number. *See* Resp. at 26–27; Reply at 14–15. There is no claim drafting rule, and certainly no provision in Section 112, requiring CardWare to use numerical identifiers "such as a first, a second, and a third number" as Apple suggests. Claim 6 claims three method steps, each directed to an action involving "a" limited-use number. There is nothing unclear about its scope.

[5] For the first time in reply, Apple argues lack of written description support. *See* Reply at 14–15. This is irrelevant and improper.

F. U.S. Patent No. 11,176,538: "said secrets" (claim 27)

"[S]aid secrets" finds its antecedent in the immediately preceding limitation, "information stored in the device . . . which is not communicated in the transaction." Antecedent basis can be implied and claim phrases need not be recited verbatim in the specification to be definite. *See Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1369–70 (Fed. Cir. 2006); *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004). While it is irrelevant to the antecedent basis analysis that the word secrets can, in general, refer to other information, Apple's expert Dr. Polish admitted that it is possible to set up a system as recited in claim 27. *See* Resp. at 28–29.

Apple concedes that, in claims 18, 20, 22, and 23, the recited secrets are known to a payment processing authority *and* a device, and that claims 11, 29, and 30 recite information known to both the electronic device and payment processing authority. *See* Resp. at 29–30; Reply at 15–16. Contrary to Apple's assertions, these other claims of the '538 patent "can also be valuable sources of enlightenment as to the meaning of ["said secrets"]." *See* Reply at 16; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (*en banc*)

G. U.S. Patent No. 11,328,286: "its valid limitations of use" (claims 1 and 15)

The antecedent basis for "its limitations of use" of claim 1 of the '286 patent is the "limited-use payment information" recited in the two limitations immediately before it. The antecedent basis for "its valid limitations of use" of claim 15 of the '286 patent is the "limited use payment information" recited in three limitations before it and the limitation after it. Apple concedes this, but (wrongly) argues that (i) card issuer authority, (ii) transaction attempt, and (iii) electronic device could also provide the antecedent. Reply at 17.

The card issuer/issuing authority of claims 1 and 15 is an entity—it is not "us[ed]" and does not have a use-based limitation. *See* Resp. at 31. The "keys or secrets" are not limitations

on the use of a card issuing authority as Apple asserts, *see* Reply at 17, but limitations on the use of limited-use payment information imposed by the card issuer authority, and which the card issuer authority uses to confirm that limited-use payment information it receives in connection with a requested transaction is used within its limitations of use. *See* Resp. at 31; '286 patent at 19:13–23, Table 1. Further, "transaction attempt" is not even recited in claim 15 and therefore cannot be antecedent to "its valid limitations of use." Nor would it make sense that the antecedent in claim 1 is a "transaction attempt" when claims 1 and 15 are structurally parallel, and claim 15 does not say anything about a transaction attempt. And, to the extent there was any remaining doubt, claim 15 recites, in the very next limitation, that the "card issuing authority is operable to validate generated limited-use payment information." Apple's argument that "its valid limitations of use" refers to anything other than "limited-use payment information" makes no sense when considering the claim in its entirety and this context.[6]

III. CONCLUSION

For the foregoing reasons, CardWare respectfully requests that the Court enter an order finding that all of the aforementioned claim terms are not indefinite and rejecting the positions Apple advances in its constructions.

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Respectfully submitted,

/s/ Eric Findlay

Eric H. Findlay (State Bar No. 00789668)
Brian Craft (State Bar No. 04972020)
FINDLAY CRAFT, P.C.
7270 Crosswater Avenue
Tyler, Texas 75703
Tel: (903)534-1100

[6] Apple also argues that the antecedent could be the "electronic device." But claims 1 and 15 do not recite an electronic device. Apple appears to be referring to "computing device" and its prior argument about claim 6. Claim 6 is a dependent claim and includes a separate limitation referring to device limitations that is not present in claims 1 or 15.

Fax: (903)534-1137
efindlay@findlaycraft.com
bcraft@findlaycraft.com

Matthew G. Berkowitz (*pro hac vice*)
Yue (Joy) Wang (*pro hac vice*)
Navid C. Bayar (*pro hac vice*)
Leaf Williams (*pro hac vice*)
Timothy Trost (*pro hac vice)*
Reichman Jorgensen Lehman & Feldberg LLP
100 Marine Parkway, Suite 300
Redwood Shores, CA 94065
Tel: (650) 623-1401
mberkowitz@reichmanjorgensen.com
ywang@reichmanjorgensen.com
nbayar@reichmanjorgensen.com
lwilliams@reichmanjorgensen.com
ttrost@reichmanjorgensen.com

Caroline Walters (*pro hac vice*)
Khue Hoang (*pro hac vice*)
Patrick Colsher
Reichman Jorgensen Lehman & Feldberg LLP
400 Madison Avenue, Suite 14D
New York, NY 10017
Tel: (212) 381-1965
cwalters@reichmanjorgensen.com
khoang@reichmanjorgensen.com
pcolsher@reichmanjorgensen.com

Attorneys for Plaintiff

CERTIFICATE OF SERVICE

I hereby certify that on the 17th day of July, 2025, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Eric Findlay
Eric H. Findlay