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

| | |
|---|---|
| CARDWARE, INC.<br><br>*Plaintiff,*<br><br>v.<br><br>APPLE INC.,<br><br>*Defendant*. | Civil Action No. 1:25-CV-00446-ADA<br><br>**JURY TRIAL DEMANDED** |

**APPLE'S REPLY CLAIM CONSTRUCTION BRIEF**

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## I. DR. POLISH'S ANALYSIS IS PROPER

The Court should reject CardWare's complaints about Dr. Polish's declaration because his opinions fall squarely within the role of expert testimony under Federal Circuit precedent. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 908 (2014) ("[D]efiniteness is to be evaluated from the perspective of someone skilled in the relevant art."); *IQASR LLC v. Wendt Corp.*, 825 F. App'x 900, 907 (Fed. Cir. 2020) (claim is indefinite if a person of ordinary skill in the art "cannot translate the definition into meaningfully precise claim scope."). Contrary to CardWare's complaints (Dkt. 52 ("CardWare Br.") at 4), Dr. Polish applied his years of experience and knowledge of a person of skill in the art in analyzing the claim language. Dr. Polish did precisely what courts expect of an expert—he provided useful analysis of the claim language from the view of a person of ordinary skill in the art. *See Nautilus*, 572 U.S. at 908.

## II. DISPUTED CLAIM TERMS

### A. "the payment information" Lacks Clear Antecedent Basis ('520 Cl. 10).

The term "the payment information" is indefinite because a person of skill in the art cannot reasonably determine whether it finds antecedent basis in "generat[ed] payment information" or "static device account number payment information." Dkt. 43 ("Apple Br.") at 5-9. CardWare argues that "the payment information" can only refer to "generat[ed] payment information," and is therefore definite. *See* CardWare Br. at 5-8. The parties do not dispute that "the payment information" could refer to "generat[ed] payment information." *Id.*; Apple Br. at 5-9. But the intrinsic record establishes that "the payment information" could also refer to "static device account number payment information." Since a person of skill in the art cannot reasonably determine which "payment information" is "<u>the</u> payment information" claimed, the term is indefinite. Dkt. 43-8 ("Polish Decl.") at ¶¶ 34-48. CardWare's arguments that the term

is definite because it can only refer to "generat[ed] payment information," and not also to "static device account payment number information," are unavailing. CardWare Br. at 6-8.

First, CardWare argues that "the payment information" cannot refer to the "static device account number" because "[e]very time the claim refers to 'static device account number payment information,' it says so." *Id*. at 8. There is no such certainty in the claims. If the patent was drafted as clearly as CardWare urges, then there would be no ambiguity about what "the payment information" refers to. For example, if it were meant to refer to "generat[ed] payment information," as CardWare contends, then the claim might say "the generated payment information." The patent does not use such express language, leading to the antecedent basis problem here. CardWare's argument fails to establish that "the payment information" cannot also refer to "static device account number payment information."

Second, CardWare wrongly argues that "the payment information" cannot refer to "static device account number payment information" because "at least a 'portion' of the disputed 'payment information' phrase is a limited-use number for limited use by the device." CardWare Br. at 8. CardWare argues that "[t]he only category of 'payment information' recited in the claim that is described as having 'portion[s]'" is found in the last limitation, which "has both the (i) static device account number, and (ii) dynamically generated one-time limited-use number." *Id*. CardWare undermines its own argument, however, because it concedes 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. Thus, CardWare acknowledges that a "portion" of either "generat[ed] payment information" or "static device account payment information" could satisfy "the payment information" term. CardWare's meritless distinction does not resolve the ambiguity of which "payment information" the disputed term refers to.

The intrinsic evidence further confirms that the term could also refer to "static device account number payment information." The related '538 patent includes claims where the "static device account number" comprises at least a portion of a limited-use number for limited use by the device, in place of an issuer provided payment information, as required by "the payment information" in '520 patent claim 10. *See* '538 patent at claims 19, 21. Comparing portions of claim 10 of the '520 patent with claims 19 and 21 of the '538 patent confirms that the "static device account number" could be considered "the payment information":

| **'520 patent, claim 10** | **'538 patent, claims 19 and 21** |
|---|---|
| 10. A method of storing and generating payment information in an electronic device, the method comprising:<br>…<br>receiving wirelessly a static device account number payment information for storage on the electronic device; and wherein<br><br>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,<br>…<br>and 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. | 19. A method of performing an online payment transaction, the method comprising:<br>…<br>generating at least one limited-use numbers at said electronic device, and using said limited-use number in place of at least a portion of selected account issuer payment information; and<br>…<br>21. The method of claim 19, wherein at least a portion of said limited-use number comprises a static device account number,<br><br>and wherein the static device account number is of a limited scope of valid use to a specific device,<br>… |

The '538 patent claims demonstrate that a "portion" (yellow) of the "limited-use number" (blue) could be comprised by the "static device account number" (green), which is for limited use by the device (gray), and used "in place of a issuer [provided] payment information" (magenta). Tellingly, CardWare does not address claims 19 and 21 of the '538 patent, despite being addressed in Apple's brief at page 8. Polish Decl. at ¶¶ 43-45. CardWare instead relies on a payment system figure (CardWare Br. at 6) not found in the asserted patents—a figure CardWare

created for this litigation—to argue that "the payment information" cannot refer to the "static device account number." The Court should reject this self-serving extrinsic evidence.

A person of skill in the art cannot determine with reasonable certainty whether "the payment information" refers to "generat[ed] payment information" in the preamble, or "static device account number payment information," and therefore is indefinite. Apple Br. at 5-9.

**B. The Open-Ended Markush Terms Are Indefinite (All Asserted Patents).**

CardWare defends its open-ended Markush claims by misconstruing Apple's arguments, relying on conclusory statements from its expert, and ignoring Dr. Polish's analysis. As Apple explained, the prototypical Markush claim "is a listing of specified alternatives of a group in a patent claim, typically expressed in the form: a member selected from the group consisting of A, B, and C." *Abbott Labs. v. Baxter Pharm. Prods.*, 334 F.3d 1274, 1280 (Fed. Cir. 2003); Apple Br. at 9-10. That does not mean that Markush claims are <u>only</u> those that follow the prototypical formulation. Rather, "the phrase 'Markush claim' means any claim that recites a list of alternatively useable species regardless of format." *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1357 n. 2 (Fed. Cir. 2016); *see also* CardWare Br. at 13 ("what matters is that 'there is a clear list of alternatives, any one of which will bring an accused system within the scope of the claim.'").

Drafting a claim with a Markush group allows a patentee to draft a single claim with a list of alternatively usable species, rather than drafting multiple claims, each of which include one of the alternative usable species. *See Pfizer Inc. v. Teva Pharms. U.S.A., Inc.*, 482 F. Supp. 2d 390, 419-20 (D.N.J. 2007). The tradeoff is that the drafter must set forth the list of alternative species in a closed set or group. "The Markush groups are closed because use of the transitional phrase 'consisting of' to set off a patent claim element indicates that the claim excludes any elements, steps, or ingredients not specified in the claim." *Bracco Diagnostics, Inc. v. Maia Pharms., Inc.*,

839 F. App'x 479, 485 (Fed. Cir. 2020) (citing *Multilayer*, 831 F.3d at 1357). Thus, a Markush claim that recites an open list of alternatives is generally indefinite because it fails to make clear what unlisted alternatives, if any, the claim is intended to encompass. *In re Kiely*, No. 2022-1076, 2022 U.S. App. LEXIS 15693, at *4 (Fed. Cir. June 8, 2022) (citations omitted).

Thus, CardWare's efforts to distinguish its open-ended Markush claims from the prototypical formulation for Markush groups by relying on nuances such as claiming a "set" versus "group," or the lack of a transition phrase, find no support in the law. And CardWare cites no caselaw to support its purported distinctions. CardWare Br. at 9-15. The key inquiry is whether the claim term lists a set of alternative species, any of which may satisfy the claim, and if so, whether the list is an open or closed set (either expressly closed by using language such as "consisting of," or implicitly closed if a person of skill can determine the scope of the set).

**1. CardWare and its expert's arguments are conclusory and wrong.**

CardWare asserts that its expert "has analyzed each of the 40-plus at-issue claims." CardWare Br. 11. Dr. Goodrich's "analysis" amounts to an assumption that a "set" is presumptively closed, followed by conclusory opinions. *See, e.g.*, Dkt. 52-1 ("Goodrich Decl.") at ¶ 57. Dr. Goodrich never considers whether any claimed set might include non-enumerated alternatives. In contrast, Dr. Polish has identified examples of non-enumerated alternatives that may fall within every claimed set, confirming his opinions that the Markush terms are open-ended and indefinite. Ex. 1, Declaration of Dr. Nathaniel Polish ("Polish Reply Decl.") ¶ 18.A.

Furthermore, CardWare's expert is unable to reasonably determine the scope of the claims at issue, confirming that they are indefinite. For example, claim 1 of the '820 patent requires "a reader interface, <u>including at least one interface selected from a set comprising</u>: a magnetic-stripe, a smart card reader interface, a mag-stripe inductor interface, an RF interface, an NFC interface, and a wireless interface." '820 patent at claim 1. After presuming it is a

closed set, Dr. Goodrich states that the specification supports his conclusion because it discloses "'coil interface[s]', NFC units, wireless systems, wired connections, and RFID, USB and NFC connection interfaces" and that "the specification specifically contemplates these interface systems, amongst others." Goodrich Decl. at ¶¶ 98-100. But the claim does not enumerate "wired connections" and "USB." Ex. 1, Polish Reply Decl. at ¶¶ 81-87. Dr. Goodrich fails to explain how an allegedly closed set can include non-enumerated options, or what "other[]" interfaces the specification "contemplates" falling inside the claimed set. *Id*. His analysis thus confirms that a person of skill cannot determine the scope of these Markush groups with reasonable certainty. Dr. Goodrich reaches the same inconsistent conclusion for several claims, which further confirms that the scope of each claim is indefinite. *See id.* at ¶ 18.B.

**2. Dr. Goodrich's analysis is rooted in a flawed assumption.**

Dr. Goodrich presumes for most terms that a "set" would "indicate to a POSITA a closed, finite group" and that "a listing of the set's elements" indicates a "complete listing of the elements of the set." *E.g.*, Goodrich Decl. at ¶ 57. Neither he nor CardWare offer any support for why a "set" is presumptively closed. When pressed, Dr. Goodrich could not explain any distinctions between sets, lists, and groups in the context of the asserted claims. Ex. 3, Goodrich Dep. at 17:2-19; 17:25-18:5; 18:23-19:4.

The Markush claim terms Apple identifies are all presumptively open-ended sets (or lists, or groups) because they do not use the transition phrase "consisting of."[1] Thus, every Markush claim at issue requires analysis of the intrinsic record to determine whether the claimed sets are open or closed. Apple Br. at 9-13; Polish Decl. at ¶¶ 18-27, 49-58. For example, '520 patent claim 14 requires displaying "the payment method types" with "images, alphanumeric characters

[1] Apple's inclusion of '634 patent claim 10 was inadvertent. Apple is not presently seeking an indefiniteness finding with respect to claim 10 based on reciting an improper Markush group.

and iconography including at least one of a set comprising: a bank logo; an issuer logo; card network icons; payment network icons; a portion of the account number; and a cardholder name." Ex. 1, Polish Reply Decl. at ¶¶ 47-53. When Dr. Goodrich was asked whether text indicating an expiration date or card type (*e.g.*, debit card) might fall inside the set of "alphanumeric characters," he responded "…if there's any text—expiration date, whether or not it's a debit card, any text that is not [in the claim's enumerated list], then it is outside the scope of claim 14." Ex. 3, Goodrich Dep. at 41:15-42:8. Yet, these two examples are directly from the intrinsic evidence: "expiration date" and "card-type information" are disclosed in '520 patent claim 17. A person of skill in the art would consider the intrinsic record's disclosure of both to be "alphanumeric characters" that one might display for "payment method types" in claim 14. Ex. 1, Polish Reply Decl. at ¶¶ 50-51. A proper analysis of the intrinsic record would not support a presumption that this set is closed. The same is true of the other Markush terms.

**3. The disputed claims with lists of alternative species followed by no transition phrase are still open-ended and indefinite Markush claims.**

CardWare argues that "several of the challenged claims do not use transition phrases at all, much less an open-transition phrase," and questions whether these terms are Markush groups. CardWare Br. at 10. CardWare cites a portion of '538 patent claim 1 as an example: "wherein the human input sensor is any one of a touch sensor, a touch-screen display interface, a gesture sensor, a motion sensor, and a biometric sensor…" This claim indisputably lists a set of alternative species ("a touch sensor," etc.) where each would satisfy the requirement of a "human input sensor." Ex. 1, Polish Reply Decl. at ¶¶ 246-249. Dr. Goodrich agreed that the claim recites a list of alternative "input sensors," each of which would satisfy the claim. Ex. 3, Goodrich Dep. at 86:20-88:3. Thus, the claim recites a Markush group. The lack of a transition phrase—specifically, "consisting of"—indicates to a person of skill that it is an open-ended

group. Ex. 1, Polish Reply Decl. at ¶¶ 246-249. Despite the lack of a transition phrase, the scope of the open-ended list cannot be reasonably determined, and it is thus indefinite. *Id.*

The same is true of every other claim that CardWare contends are not Markush claims. *See id.* at ¶ 18.C. All these Markush claims are indefinite because a person of skill in the art cannot reasonably determine the scope of the open-ended sets. *See* Apple Br. at 11-12.

**4. Every Markush claim term in dispute is indefinite.**

In contrast to Dr. Goodrich's conclusory and inconsistent opinions, Dr. Polish performed the analysis described above for every Markush term. Apple Br. at 9-13; Polish Decl. at ¶¶ 49-58. In every instance, the claims recite lists of alternative species, each of which could satisfy the claim, but do not recite "consisting of," meaning the set is presumptively open. *Id.* Dr. Polish analyzed each claim and the intrinsic record to determine the scope of the claimed sets. *Id.*; *see also* Polish Decl. at ¶¶ 18-27; Ex. 2, Polish Dep. at 199:3-201:19; 206:19-207:10; Ex. 1, Polish Reply Decl. at ¶¶ 8-18. For every claim, Dr. Polish could not reasonably determine the scope of the claimed sets because the intrinsic record leaves open the possibility that non-enumerated alternatives can fall inside the scope of the sets. *Id.* Dr. Polish also considered and responded to each of Dr. Goodrich's opinions, reaching the same conclusions of indefiniteness. *See* Ex. 1, Polish Reply Decl. This includes claims with open-ended sets of "information" (*id.* at ¶ 18.D), inputs (*id.* at ¶ 18.E), interfaces (*id.* at ¶ 18.F), devices (*id.* at ¶ 18.G), and operations (*id.* at ¶ 18.H). All of these claims are indefinite because a person of skill in the art cannot reasonably determine the metes and bounds of the claimed sets.

**C. "limited-use" Means Limited In Duration Or Number Of Transactions (All Asserted Patents).**

CardWare's primary argument is that the plain meaning encompasses any use limitation, and the claim construction inquiry must end there. CardWare Br. at 16. But this argument

improperly divorces the claim language from the specification because the specification teaches that the use of a limited-use number, limited in duration or number of transactions, is critical to the purported invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005) (cautioning against "divorcing the claim language from the specification"); Apple Br. at 18-19.

The specification consistently describes the purported invention as improving the security of financial transactions using a "limited-duration" number, which it defines as "limited to only one transaction, a finite number of transactions, or [] limited to a specified period of time—e.g., 2 minutes, 10 minutes, 3 hours…." Apple Br. at 14-16 (quoting '820 patent at 11:4-9). And the specification exclusively discloses a "limited-use" number as one that is generated from a "limited-duration" number. *Id.* (quoting '820 patent at Abstract, 2:27-32, 13:1-11). Thus, CardWare has it backwards: a "limited-duration" number is not a <u>type</u> of "limited use number"; rather, a "limited use number" is a type of "limited duration" number. CardWare Br. at 17. Interpreting the term to be limited in duration or transactions corresponds to what the applicants described as their invention and therefore is the correct construction. *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1321 (Fed. Cir. 2016).

CardWare incorrectly argues that the patents contemplate a "limited-use" number limited not in transactions or duration, but instead based on other factors, such as the type of transaction or facility of use. CardWare Br. at 17-18. To the contrary, every passage cited in CardWare's brief describes the use of a "limited-duration" number. *See, e.g.*, '538 patent at 12:54-60 (providing "limited-duration payment numbers" corresponding to the remaining credit); 10:34-39 (generating "limited-duration payment information"); 12:28-31 ("limited-duration payment number"); *see also* '520 patent at 10:4-23, 11:67-12:2, 12:23-42; 14:8-23; '820 patent at 10:56-11:9, 12:61-64, 13:20-40, 15:12-27, Fig. 10; '579 patent at 10:4-23, 11:67-12:2, 12:23-42, 14:8-

23; ’538 patent at 10:23-44, 12:28-31, 12:54-7, 14:47-62; ’286 patent at 10:63-11:16, 13:1-4, 13:27-47, 15:19-34, Fig. 10; ’634 patent at 10:33-53, 12:39-42, 12:65-18, 14:61-15:10. CardWare cites no description or embodiment of the purported invention involving anything other than a “limited-duration” number. There are no such disclosures.

CardWare also incorrectly contends that certain claims define the “scope” of “limited-use” numbers as “tied” to use limitations other than transactions or duration. CardWare Br. at 16-17. Although the surrounding claim language may impose additional limitations on how “limited-use” numbers must be used, none define the scope of the claim term. For example, the limitation “limited-use number for limited use by the device” (’520 patent, claim 10) does not define the scope of the “limited-use” as being “tied to the device,” but rather how it must be used; that is, by the device. *Id.* Indeed, the next limitation recites “dynamically generating a one-time limited-user number,” making clear that the limited use number is limited in number of transactions (one). The same is true for each of CardWare’s cited claims (CardWare Br. at 16-17)—the claims describe how the limited-use number must be <u>used</u>, not what it <u>is</u>.

### D. Printed Matter Claim Terms Are Not Entitled To Patentable Weight (’520, ’820, ’579, and ’286 Patents).

CardWare concedes that certain limitations are printed matter. Apple Br. at 17-18 (underlined limitations). The remaining disputes fall in two categories: (1) content not disposed on a device; and (2) content displayed on a device.

#### 1. Content not disposed on the claimed device.

Several asserted claims recite limitations directed to content <u>not</u> disposed on the claimed device. Apple Br. at 17-18 (non-underlined limitations). Each is printed matter, because each is “matter claimed for what it communicates.” *Id.* at 18; *In re DiStefano*, 808 F.3d 845, 848-50 (Fed. Cir. 2015). For example, claim 1 of the ’820 patent recites a device comprising “a thin

shaped body having no fixed payment numbers disposed thereon." There is no question that the claimed "fixed payment number" is the content of communication. Phrasing the limitation in the negative does not change the result—it is still information claimed for its content (*i.e.*, no fixed payment numbers). Applying the proper legal standard, these limitations are "matter claimed for what [they] communicate." *In re DiStefano*, 808 F.3d at 848-50. CardWare cites no authority for the proposition that negative limitations are exempt from the printed matter doctrine. CardWare Br. at 20-21. And notably, the PTAB reached the same conclusion in analyzing the same limitations. Apple Br. at 19 (citing Exs. 12-14).

CardWare also is incorrect that the printed matter negative limitations are functionally related to the substrate on which they are disposed. CardWare Br. at 21. The recited limitations do not "interact[] with the other elements of the claim" in any way, much less "to create a new functionality in a claimed device." Apple Br. at 19 (quoting *CR Bard Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372, 1381 (Fed. Cir. 2020)); Ex. 8, Polish Decl. ¶¶ 69-70. Contrary to CardWare's argument, the specification does not describe the absence of fixed payment numbers as enhancing the security of the device. Rather, as CardWare recognizes, "[o]nly the [limited-use] number generated at the instant of the credit card transaction matters." CardWare Br. at 21 (quoting '820 patent at 11:36-45). Each independent claim recites the use of a "limited-use" number to provide this purported security benefit. *E.g.,*'820 patent, claims 1, 11, 15; '286 patent, claims 1, 15, 20. And the use of a "limited-use" number in place of a fixed payment number provides the same security benefit regardless whether the fixed number is printed on the device or not. Because the claimed devices have the same functionality regardless whether the negative limitations are present (Polish Decl. at ¶ 70), they are not entitled to patentable weight.

**2. Content displayed on the claimed device.**

Several asserted claims recite limitations directed to content displayed on the claimed

device. Apple Br. at 20. CardWare contends that these limitations are not printed matter because they are directed to "displaying," "rendering" or "transmitting visually" the content. *Id.* CardWare's argument is contrary to the law. Whether content is "disposed" on a device or "displayed" (or "rendered" or "transmitted visually") on an electronic device, "printed matter is matter claimed for what it communicates." Apple Br. at 21; *IOENGINE, LLC v. Ingenico Inc.*, 100 F.4th 1395, 1401, 1404 (Fed. Cir. 2024). And CardWare does not dispute that these limitations recite information claimed for its communicative content.

CardWare also incorrectly asserts that Apple ignored the "broader context" of the claims. CardWare Br. at 22-23. To the contrary, Apple and its expert analyzed each claim limitation and demonstrated there is no functional or structural relationship between the displayed content and the claimed device. Apple Br. at 21-22 (citing Polish Decl. at ¶ 75). CardWare's assertion that claim 10 of the '286 patent requires "transmitting" data in a particular "format" is belied the language of the claim itself: "transmitting a payment information visually, in alphanumeric, graphical and iconography." This no different from claiming "displaying payment information" and has no functional or structural relationship to the claimed invention. Polish Decl. at ¶ 75. Moreover, CardWare identifies no functional relationship for any of the other displayed printed matter limitations, because there is none. Unlike in *Hafeman*, CardWare has attempted to "patent specific text on the screen." CardWare Br. at 23 (quoting *Hafeman v. LG Elecs., Inc.*, No. 6:21-cv-00696-ADA-DTG, 2003 WL 2978968, at *8 (W.D. Tex. Apr. 17, 2023)). That is not permissible, and these limitations are not entitled to patentable weight.

### E. "the system of claim 15 . . . comprising . . . a user input providing for at least one user action . . ." Is Indefinite Under *IPXL* ('820 Cl. 20).

This claim is indefinite because it improperly mixes method and system claim elements. Apple Br. at 22-24. Claim 20 recites, in relevant part:

> 20. The system of claim 15 wherein the computing device is further operable to obtain a user payment approval through at least one user-interface element of the computing device, from a set comprising:
>
> a display interface,
>
> …
>
> a device biometric sensing the device is continuously remaining in contact with a valid user; and,
>
> wherein the computing device is operable to display at least one of a set comprising: the transaction information, the merchant information, the time, the location of the transaction, the payment bank logo, the card issuer icon, the payment card image, and the amount, on a display of the computing device, and,
>
> *a user input providing for at least one user action from a set comprising: an approving of a transaction, a denying of a transaction, and an adjusting of a transaction, via the user-interface*.

'820 patent at claim 20 (emphasis added). CardWare misreads the claim, using emphasis and ellipses to try to suggest that the "a user input" is one of the set of "user-interface element[s]" recited in the preamble. CardWare Br. at 25. On the contrary, the claimed set of "user interface element[s]" begins with "a display interface" and ends with "a device biometric," as is evident from the semicolon between the "a device biometric" limitation and the next limitation "wherein the computing device is operable to," which is not part of the set.

CardWare also wrongly contends that a claim can only be found indefinite under *IPXL* if it includes an active verb in an apparatus claim. The presence of a verb is not dispositive, and CardWare cites no authority for that proposition. Rather, the relevant inquiry is whether it is clear from the claim language whether infringement occurs when one creates a system that allows a user to use the system or when the user actually uses it. *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005).

Moreover, CardWare's contention that "a user input" can be interpreted only as a noun that does not require user action is misguided. CardWare Br. at 25. The specification makes clear that "a user input" requires user action. For example, the patent discloses that "[a] user input may be made" (*i.e.*, an action by a user). '820 patent at 6:15-17; *see also* 12:21-25 ("a user

input (such as a gesture, swipe, and/or an unlock keycode) [] is entered"), 12:64-66 (the device "receives the user input"). CardWare ignores these disclosures and instead relies on the specification's alleged "descri[ption] [of] a variety of user input structures." CardWare Br. at 25-26. However, the input structures discussed in the cited passages relate to the "touch sensor array," not the "user input." CardWare Br. at 26. In fact, claim 8 requires that "the user interface is operable to receive a [] user input," further confirming that "a user input" is something that is received by the device from the user. '820 patent, claim 8.

Because it is not clear whether claim 15 covers the creation of a system that allows a user to use the system or the user's actual use of the system, the claim is indefinite.

### F. "the method of claim 1 wherein a payment processing authority verifies a limited-user number … and rejecting a limited use number" Does Not Provide Reasonable Certainty Regarding Which Of Its Multiple Interpretations Is Proper And Is Thus Indefinite ('579 Cl. 6).

CardWare merely chose one of the several equally plausible interpretations of this term without explaining why a person of skill would have chosen that interpretation over the others. CardWare acknowledges at least two possible competing readings of the claim, ignores basic premises of claim interpretation, and ultimately argues for a construction that would render the claim indefinite for lack of written description. According to CardWare, each use of the term "a limited-use number" stands on its own, and therefore the three steps recited in claim 6 also stand on their own, each allowing for a different number. CardWare Br. at 27. CardWare then argues that "Claim 6 covers steps by a 'payment processing authority' to verify and authenticate (<u>or reject</u>) a number as part of a transaction."). *Id.* (emphasis added). Where the first scenario would requires steps 6a, 6b, and 6c, the second scenario requires only step 6a and either 6b or 6c.

CardWare's arguments contradict a fundamental premise of claim construction that a "word or phrase used consistently throughout a claim should be interpreted consistently."

*Phonometrics, Inc. v. Northern Telecom Inc.*, 133 F.3d 1459, 1465 (Fed. Cir. 1998). Here, the claim uses the same term, "a limited-use number," throughout the claim. The claim does not differentiate between the term or use identifiers, such as a first, a second, and a third number. CardWare provides no rationale for ascribing different meanings to each of the different terms within the same claim. And CardWare's interpretation would render the claim indefinite for lack of written description. Tellingly, CardWare does not cite the specification to try to support the use of three separate numbers, because the patent never suggests a payment processing authority or how it would accomplish the recited steps using three separate limited-use numbers. Instead, the patent discloses at least two different limited-use numbers, a "limited use credit card number" and a "one-time limited-use" cryptogram number, but does not specify how they would be used in the claimed steps. In short, CardWare does not explain why a person of skill in the art would read the claim the way CardWare wants to read it versus the other plausible interpretations. Because the claim lacks reasonable certainty, it is indefinite.

**G. "said secrets" Lacks Antecedent Basis ('538 Cl. 27).**

CardWare fails to identify any usage of the word "secret" in independent claim 25 or its dependent claim 27 that could provide antecedent basis for the term "said secrets." CardWare Br. at 27-30. The issue is not whether a person of skill in the art would know what the word "secrets" means in the abstract; rather, the issue is that a person of skill cannot determine with reasonable certainty <u>which</u> secrets the term "said secrets" refers to. *See In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014); *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359 (Fed. Cir. 2001). Rather than identifying antecedent basis, CardWare speculates that "information stored in the device and specific to the device … is still known to the device and the payment processing authority" and "must constitute 'secrets'[.]." CardWare Br. at 28. CardWare cites no support for its speculation, nor is there any support in the claim that "information stored in the device and

specific to the device" would be "known to the device and the payment processing authority," thereby constituting "secrets" in the context of claim 27. It is speculation that "information stored in the device and specific to the device" would have been previously communicated to "the payment processing authority" such that it could be "said secrets." *See also* Ex. 2, Polish Dep. at 169:4-7, 162:14-21. CardWare claims that "Apple's expert agrees" with its speculative theory, but the cited portions of Dr. Polish's deposition confirm that he testified about "what secrets could mean" generally, and not what "said secrets" means. *See* CardWare Br. at 28-29.

CardWare's reliance on claims 11, 29, and 30 of the '538 patent to support its speculation also is misplaced. Claim 11 recites two different types of information: "a device-specific internal information associated with said device and also known to a payment processing authority," and "payment processing authority-specific information provided by a payment processing authority." '538 patent at claim 11. Even if each of these constitutes a "secret," they do not provide any clarity to a person of skill in the art to reasonably determine whether "said secrets" in claim 27 refers to one or the other or both types of information. Similarly, claims 29 and 30 recite separate instances of information and recite "device secret" and "a payment processing authority secret." *Id*. at claims 29, 30. These claims also do not provide any clarity to a person of skill to reasonably determine whether "said secrets" in claim 27 refers to one or more types of information and/or secrets. Because CardWare's speculation is not a substitute for antecedent basis, claim 27 is indefinite.

**H. "its valid limitations of use" Lacks Clear Antecedent Basis ('286 Cls. 1, 15).**

Claims 1 and 15 are indefinite because a person of skill in the art could not be reasonably certain which claim element "<u>its</u>" refers to in the context of the similar limitations recited in claims 1 and 15. Claim 1 recites in relevant part: "wherein a card issuer authority is operable to reject as invalid a transaction attempt outside of <u>its limitations of use</u>." '286 patent, claim 1

(emphasis added). CardWare contends that "its" refers to the "limited-use payment information" recited in an earlier limitation because it is the only claim element described as "limited-use." CardWare Br. at 31-32. Apple agrees this is one reasonable antecedent basis for "its." However, another reasonable antecedent basis for "its" is "card issuer authority." In the context of the limitation quote above, "its" reasonably could refer back to the card issuer authority, which would reject as invalid transaction attempts outside of the card issuer authority's limitations of use. In fact, that is the most natural reading of the claim. CardWare argues that "its" cannot refer to the card issuer authority because a card issuer authority doesn't have a "use." CardWare Br. at 31. But the claims do not recite "its use," the claims recite "its [valid] limitations of use." And the specification contemplates that a card issuer authority may have "limitations of use," including for example "keys or secrets," which limit transactions to only those from valid users. Apple Br. at 30. Tellingly, CardWare simply ignores those disclosures.

Other reasonable antecedent bases for "its" include the "transaction attempt" and "electronic device." Apple Br. at 30. CardWare identifies no reason why "its" could not refer to the "transaction attempt" as a matter of English grammar, and CardWare ignores the patents disclosures that the "electronic device" also has limitations of use. *See id*. Because a person skilled in the art would not be able to determine the antecedent basis of "its" with reasonable certainty, claims 1 and 15 of the '286 patent are indefinite.

## III. CONCLUSION

For the foregoing reasons and those set forth in Apple's opening brief, Apple respectfully asks the Court to adopt its proposed constructions.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served on July 1, 2025, to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5. Any other counsel of record will be served by a facsimile and/or first-class mail.

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