IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND-ODESSA DIVISION

CARDWARE INC.	§	
	§	
v.	§	CIVIL NO. 7:24-CV-278-DC-DTG
	§	
GOOGLE LLC	§	
	§	

CLAIM CONSTRUCTION
MEMORANDUM AND ORDER

Before the Court are the parties' claim construction briefs: Defendant Google LLC's ("Defendant's" or "Google's") Opening and Reply briefs (Dkt. Nos. 58 and 71, respectively) and Plaintiff CardWare Inc.'s ("Plaintiff's" or "CardWare's") Claim Construction Brief and Sur-Reply Claim Construction Brief (Dkt. Nos. 63 and 83, respectively). Further before the Court is the parties' July 15, 2025 Joint Claim Construction Statement. Dkt. No. 85. Pursuant to referral under 28 U.S.C. § 636 and Appendix C of the Local Court Rules for the Assignment of Duties to United States Magistrates (Dkt. No. 7, Nov. 5, 2024 Order and Advisory), the undersigned held a *Markman* hearing on August 25, 2025, and now enters this Claim Construction Memorandum and Order.

Table of Contents

I. BACKGROUND

Plaintiff asserts United States Patents No. 10,339,520 ("the '520 Patent"), 11,176,538 ("the '538 Patent"), and 11,620,634. Dkt. No. 1, Exs. A, C & D. The disputed terms presented for claim construction appear in claims of the '520 Patent and the '538 patent.

The Eastern District of Texas previously construed disputed terms in these patents in *CardWare, Inc. v. Samsung Electronics. Co., Ltd., et al.*, No. 2:22-cv-00141, Dkt. No. 138 (E.D. Tex. Aug. 23, 2023) (Payne, J.) ("*Samsung*").

II. THE ASSERTED PATENTS

The '520 Patent, titled "Multi-Functional Credit Card Type Portable Electronic Device," issued on July 2, 2019, and bears an earliest priority date of March 15, 2013. The Abstract of the '520 Patent states:

> An embodiment includes a credit card device capable of generating a programmed magnetic field of alternating polarity based on a speed of a card swipe, and methods for constructing the device for the purpose of emulating a standard credit card. An apparatus is described to allow said device to emulate behavior of a credit card when used in electronic credit card readers. Additionally methods are described to allow user control of said device for the purpose of authorizing or controlling use of said device in the application of credit, debit and cash transactions, including cryptocurrency and card-to-card transactions. Methods are also described for generating a limited-duration credit card number when performing a transaction for the purpose of creating a limited-use credit card number, which is limited in scope of use to a predetermined number of authorized transactions. Furthermore said device may interact with other similar devices in proximity for the purpose of funds or credit/debit transfers.

The '538 Patent, titled "Multi-Function Smart Tokenizing Electronic Payment Device," issued on November 16, 2021. The '538 Patent resulted from a continuation of a continuation of the '520 Patent and likewise bears an earliest priority date of March 15, 2013.

III. LEGAL PRINCIPLES

General Principles

The general rule is that claim terms are generally given their plain-and-ordinary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014), *vacated on other grounds*, 575 U.S. 959 (2015) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.") (internal quotation omitted). The plain-and-ordinary meaning of a term is the "meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1313.

The "only two exceptions to [the] general rule" that claim terms are construed according to their plain-and-ordinary meaning are when the patentee (1) acts as his/her own lexicographer or (2) disavows the full scope of the claim term either in the specification or during prosecution. *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). The Federal Circuit has counseled that "[t]he standards for finding lexicography and disavowal are exacting." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014). To act as his/her own lexicographer, the patentee must "clearly set forth a definition of the disputed claim term" and "'clearly express an intent' to [define] the term." *Thorner*, 669 F.3d at 1365.

"Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent." *Phillips*, 415 F.3d at 1317. "[D]istinguishing the claimed invention over the prior art, an applicant is indicating what a claim does not cover." *Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1379 (Fed. Cir. 1998). The doctrine of prosecution disclaimer precludes a patentee from recapturing a specific meaning that was previously disclaimed during prosecution. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). "[F]or prosecution disclaimer to attach, our precedent requires that the alleged

disavowing actions or statements made during prosecution be both clear and unmistakable." *Id.* at 1325–26. Accordingly, when "an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

"Although the specification may aid the court in interpreting the meaning of disputed claim language . . ., particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988). "[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." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

Although extrinsic evidence can be useful, it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc. v. United States Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Technical dictionaries may be helpful, but they may also provide definitions that are too broad or not indicative of how the term is used in the patent. *Id.* at 1318. Expert testimony may also be helpful, but an expert's conclusory or unsupported assertions as to the meaning of a term are not. *Id.*

Indefiniteness

"[I]ndefiniteness is a question of law and in effect part of claim construction." *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012). Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus Inc. v. Biosig Instruments,*

Inc., 572 U.S. 898, 910 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application was filed. *Id.* at 911.

IV. AGREED CONSTRUCTIONS

In their July 15, 2025 Joint Claim Construction Statement (Dkt. 85), the parties submitted the following agreed-upon constructions:

Term	Agreed Construction
"rendered the display" '520 Patent, Claim 15 (Proposed by Plaintiff)	"rendered on the display"
"rejecting a limited-use number, by the payment processing authority, on at least one" '579 Patent, Claim 6 (Proposed by Plaintiff)	"rejecting a limited-use number, by the payment processing authority, based on at least one"
"a device biometric sensing the electronic device is continuously remaining in the proximity contact of a valid user" '579 Patent, Claim 9 (Proposed by Plaintiff)	"a device biometric sensing that the electronic device is continuously remaining in the proximity contact of a valid user"
"reduce" '634 Patent, Claim 4 (Proposed by Plaintiff)	"produce"
"via said NFC for receipt by an NFC recipient" '634 Patent, Claim 4 (Proposed by Plaintiff)	"via said NFC interface for receipt by an NFC recipient"
"Lather" '634 Patent, Claim 5 (Proposed by Plaintiff)	"further"

"in place of the issued payment account information said NFC interface" '634 Patent, Claim 18 (Proposed by Plaintiff)	"in place of the issued payment account information via said NFC interface"
"preforming" '634 Patent, Claim 28 (Proposed by Plaintiff)	"performing"
"received the user input device coupled to the processor" '634 Patent, Claim 55 (Proposed by Plaintiff)	"received via the user input device coupled to the processor"

V. LEGAL ANALYSIS FOR U.S. PATENT NO. 10,339,520

A. "payment information," "issued payment information," "an issuer provided payment information," "the issuer provided payment information," "a static device account number payment information," "the payment information," "a issuer provided payment information," and "issuer provided payment information"

Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
A. "payment information"; "issued payment information"; "an issuer provided payment information"; "the issuer provided payment information"; "a static device account number payment information"; "the payment information"; "a issuer provided payment information"; "issuer provided payment information" U.S. Patent No. 10,339,520 Claim 10 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 1.

The Parties' Positions

Defendant argues that "Claim 10 of the '520 Patent is indefinite because it recites numerous variations of 'payment information' that have no clear antecedent basis and, thus, no

reasonably certain meaning." Dkt. No. 58 at 3. Defendant argues that the Eastern District of Texas, in *Samsung*, erred in its rejection of indefiniteness arguments as to these terms, and Defendant also submits that it is presenting additional arguments here. *Id.* at 4 & n.2. Defendant argues that "the claim language distinguishes different types of payment information," and "[t]o say that 'the payment information' refers to all of them is incongruous, particularly in context." *Id.* at 7. Defendant argues that the patentee had an obligation to avoid "textual sloppiness." *Id.* (quoting *SIMO Holdings, Inc. v. H.K. uCloudlink Network Tech., Ltd.*, 983 F.3d 1367, 1378 (Fed. Cir. 2021)). Defendant argues that "it remains unclear which of the claim's various 'payment information' terms is used in the method step to generate a one-time limited used [*sic*, use] number," and "[t]hus, the *Samsung* court's interpretation cannot be right." *Id.* at 9. Defendant also urges that "[t]he language of Claim 10 itself indicates that the antecedent could alternatively be 'issued payment information' or 'an issuer provided information.'" *Id.* at 8. Further, Defendant argues that the scope of "a issuer provided payment information" is unclear, arguing for example that "the inclusion of the article 'a' before the disputed term would indicate that it is a different issuer provided payment information than what is previously recited, but the specification and intrinsic record do not provide any guidance regarding the scope of this term." *Id.* at 9 (citations omitted).

Plaintiff responds that "the claim language, when read in context, is definite—just as Judge Payne already found after considering the same arguments in the *Samsung* litigation." Dkt. No. 63 at 3. Plaintiff submits that Claim 10 "claims multiple categories of 'payment information,' including (i) issued payment information which comprises an issuer provided payment information, (ii) a dynamically generated one-time limited-use number, (iii) static device account number payment information, and (iv) a complete replacement payment

information that is a combination of the dynamically-generated and static device account numbers." *Id.* at 4. Plaintiff argues:

> There is nothing indefinite about the way that the claim describes the different steps in a secure payment transaction. There are multiple categories of "payment information" recited in claim 10 because that is the nature of this secure payment technology—one type of payment information gets replaced with another, and that replacement payment information includes different sub-portions. In each recitation, the context of the claim provides clarity as to which "payment information" is being recited, whether that is the "issued" payment information, the "static device account number," the "dynamically generate[d] [] one-time limited use number" or the complete "payment information" that is used for the "payment transaction."

Id. at 6. Plaintiff further argues: "'[P]ayment information' does not refer to all information; that would include issued/issuer provided payment information that the complete 'payment information' replaces. Rather, as Judge Payne held, it refers to the ' "information" involved in ultimately "making a payment transaction."' " *Id.* at 8 (citing *Samsung* at 23). As to "a issuer provided payment information," Plaintiff responds that "[t]he complete 'payment information' is used in place of 'a issuer provided payment information,' which could be the 'issuer provided payment information' that is communicated wirelessly (per limitation 10[d]) or some other issuer-provided payment information that may already be stored in the device." *Id.* at 9–10.

Defendant replies that "the claim language distinguishes different types of payment information and it is not clear how 'the payment information' can refer back to a generic recital of all information involved in making a payment transaction given the different uses of the term." Dkt. No. 71 at 3 (citation omitted). Defendant further submits:

> CardWare incongruously responds that Judge Payne's Order says "payment information" does not refer to *all* information in the claim but instead refers to the information involved in making a payment transaction. Resp. at 8 ("In other words, 'payment information' does not refer to *all* information; that would include issued/issuer provided payment information that the complete 'payment information' replaces."). That reading of the Order is not correct because, as described in more detail below, the "issued payment information"/"an issuer

> provided payment information" is necessarily involved in making a payment transaction according to the language of the claim. '520 Patent at 17:10–20. CardWare then contends that the preamble's "payment information" is the complete, combined payment information generated and used in the final limitation of Claim 10 (Resp. at 4, 8), but that directly contradicts the Eastern District of Texas finding that the preamble's "payment information" generically refers to *all* information in the claim. Thus, neither party agrees with the reasoning of the Eastern District of Texas.

Id. Defendant argues, for example, that "in the context of all the preceding references to different types of payment information, there is no natural reading of 'the payment information' in the middle of the claim as referring to the end result generated in the very last limitation / method step." *Id.* at 4. Defendant further argues: "CardWare also incorrectly asserts that 'the payment information' cannot refer to 'issued' payment information because that information must come from 'a bank or other card issuer.' This is not so. Nothing in the intrinsic record limits 'issued payment information' or 'an issuer provided payment information' as being from a bank." *Id.* at 5 (citation omitted).

In sur-reply, Plaintiff argues that "[t]here is no indication in the claim that 'issued payment information' is involved 'in ultimately making a payment transaction.'" Dkt. No. 83 at 2. Plaintiff argues, for example:

> Claim 10 is organized into several different concepts that generally follow an actual secure payment transaction using the patented technology: (i) the preamble sets out the overall goal of the method—storing and generating secure [replacement] payment information; (ii) limitations 10(a)-10(d) recite a process of onboarding an issued payment instrument and receiving a token (static device account number) that gets stored on the device for later use in a secure transaction; (iii) limitation 10(e) begins to set out the nature of the secure replacement payment information that will be used for a transaction; and (iv) limitations 10(f)-(g) recite generation of the dynamic portion, and, finally, use of the static and dynamic portions to complete a payment transaction. The "payment information" in 10(e) refers back to the same term in the preamble because it is the limitation that begins to describe the nature of the information that will be used in the transaction. 10(f) and 10(g) then provide further detail and complete the transaction process. Putting the limitation in the middle of the claim is entirely proper, and, in this case, logical.

Id. at 3. Plaintiff also urges that "the point of claim 10 is to use secure *replacement* information for the transaction—information that did not come from an issuer (and therefore cannot be used fraudulently). *Id.* at 4. Further, Plaintiff argues that "claim 10 refers to 'said static device account number' in limitation 10(g) when referring back to the 'static device account number payment information,'" and "[t]here is no reason to think that the claim uses 'said static device account number' in one instance but just uses 'payment information' when referring to it a second time." *Id.* at 5. Finally, Plaintiff argues that "payment information" in limitation 10(f) is not recited as requiring any antecedent, and, as to "a issuer provided payment information," Plaintiff argues "[t]here is no requirement in patent law that a patentee forego use of the phrase 'a' in favor of, e.g., 'said' or 'the' that refers back to some prior claim term." *Id.* at 6.

At the August 25, 2025 hearing, the parties presented oral arguments.

The Court's Analysis

In *Samsung*, the Eastern District of Texas found Claim 1 of the '520 Patent to be indefinite, but *Samsung* rejected an indefiniteness challenge as to Claim 10, finding:

> As to "the payment information," Claim 10 of the '520 Patent (unlike above-discussed Claim 1) recites "payment information" in the preamble, thus introducing the term in a generic manner so as to encompass the various recitals of "information" involved in ultimately "making a payment transaction."
>
> Thus, the antecedent basis for "the payment information" in Claim 10 of the '520 Patent is the "payment information" recited in the preamble. The Court therefore rejects Defendants' indefiniteness argument. Defendants do not present any alternative proposed construction, and no further construction is necessary. The Court accordingly hereby construes these disputed terms to have their plain meaning.

Samsung at 23 (emphasis omitted).

Claim 10 of the '520 Patent recites (emphasis added; square-bracketed lettering added for identification purposes, as the parties have done in their briefing):

> 10. A method of storing and generating *payment information* in an electronic device, the method comprising:
>
> [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*;
>
> [b] wherein the electronic device comprises device-specific and user-specific information; and,
>
> [c] wherein *the issuer provided payment information* is communicated wirelessly; and,
>
> [d] receiving wirelessly *a static device account number payment information* for storage on the electronic device; and wherein
>
> [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,
>
> [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
>
> [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.

In the recital of "the payment information" in limitation 10[e], this information is for use "*in place of* a issuer provided payment information," so "the payment information" in limitation 10[e] does not refer to "issuer provided payment information" or "issued payment information." The Eastern District of Texas in *Samsung* did not say otherwise. Defendant emphasizes that limitation 10[e] recites "*a* issuer provided payment information," wherein Defendant argues that the use of the indefinite article, "a," indicates that "a issuer provided payment information" in limitation 10[e] is different than "issued payment information" or "an issuer provided payment information" in limitation 10[a]. Dkt. No. 58 at 6–7; Dkt. No. 71 at 5. A fair reading of this limitation in context, however, is that "the payment information" is distinct from "issuer provided payment information" in general, especially when considering that the final limitation of the claim recites using certain numbers "in the place of issuer provided payment information," in general.

Also, the recital that a "portion" of "the payment information" is a "*limited-use* number for limited use by the device" demonstrates that "the payment information" does not refer back to "a *static* device account number payment information." That is, because a portion of "the payment information" is limited-use, "the payment information" as a whole cannot be "static." The Eastern District of Texas in *Samsung* did not say otherwise. *Samsung* merely noted that the preamble introduced "payment information" in a "generic manner," and *Samsung* considered and rejected the argument that "the payment information" lacked antecedent basis. *Samsung* at 23. Also, as Plaintiff argues here, the recital of "*said* static device account number" in limitation 10[g] weighs further against interpreting "the payment information" as referring back to "a static device account number payment information." Dkt. No. 83 at 5.

In the present case, the parties present far more extensive briefing regarding Claim 10 of the '520 Patent than did the parties in *Samsung*, but the result is the same. As in *Samsung*, this Court finds that the antecedent basis for "the payment information" in Claim 10 of the '520 Patent is the "payment information" recited in the preamble. As evident from the context of the claim as a whole, and as noted in *Samsung*, this "payment information" is for "ultimately 'making a payment transaction.'" *Id.* Contrary to Defendant's arguments, nothing precluded the patentee from referring to this in the middle of the claim. Dkt. No. 71 at 4. Thus, as discussed above, the claim is reasonably clear that "the payment information" in limitation 10[e] does *not* refer to "issuer provided payment information," "issued payment information," or "static device account number payment information." The Court therefore rejects Defendant's assertion of indefiniteness based on purported ambiguity in this regard.

As to the recital of "payment information" in limitation 10[f], at the August 25, 2025 hearing Defendant reiterated its argument that this limitation is unclear. In this limitation,

"payment information" is recited without any article (such as "a," "the," or "said"), so no antecedent basis is required, and therefore this "payment information" can be any information related to payment. As Plaintiff argued at the August 25, 2025 hearing, this is a stand-alone, generic reference to payment information and indeed is potentially broader than the "payment information" recited in the preamble. This does not give rise to any lack of reasonable clarity.

As to the recital of "a issuer provided payment information" in limitation 10[e], Defendant argues this is unclear because the claim recites "an issuer provided payment information" in limitation 10[a], "the issuer provided payment information" in limitation 10[c], and "issuer provided payment information" in limitation 10[g]. Defendant argues that "the inclusion of the article 'a' before the disputed term would indicate that it is a different issuer provided payment information than what is previously recited, but the specification and intrinsic record do not provide any guidance regarding the scope of this term." Dkt. No. 58 at 10 (citation omitted; emphasis omitted). As found above, however, limitation 10[e] uses the indefinite article, "a," to recite that "the payment information" is distinct from "a issuer provided payment information" in general, and the claim scope is reasonably clear.

Further, Defendant argues that the preamble recital of "payment information" cannot refer to overall payment information because the preamble recites "storing" and the body of the claim uses the phrase "for storage" only with reference to "a static device account number payment information." Dkt. No. 71 at 4. This argument is unpersuasive because the preamble recites not just "storing" payment information but rather "storing and generating" payment information. Moreover, Defendant has not shown that this general characterization in the preamble must necessarily be tied to any particular limitation in the body of the claim.

Finally, Defendant cites Plaintiff's infringement contentions (*see* Dkt. No. 58 at 6 n.3), but any dispute regarding how Plaintiff applies the claim language to the accused instrumentalities is a factual dispute regarding infringement. Potential disputes regarding infringement perhaps involve application of the Court's claim construction, but such potential disputes regarding infringement do not affect the present claim construction analysis. *See, e.g., Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1367 (Fed. Cir. 2008) ("A claim is construed in the light of the claim language . . . not in light of the accused device.") (citation and internal quotation marks omitted).

The Court therefore hereby expressly rejects Defendant's indefiniteness arguments. The opinions of Defendant's expert in this regard are likewise unpersuasive. *See* Dkt. No. 58, Ex. 2, May 22, 2025 Black Decl. at ¶¶ 34–41. Defendant presents no alternative proposed construction, but construction is appropriate to set forth the antecedent basis.

The Court accordingly hereby finds that **the antecedent basis for "the payment information" in Claim 10 of the '520 Patent is "payment information" recited in the preamble**.

VI. LEGAL ANALYSIS FOR U.S. PATENT NO. 11,176,538

B. "said device account information"

Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
B. "said device account information" U.S. Patent No. 11,176,538 Claim 4 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 2.

The Parties' Positions

Defendant argues that "Claims 1, 3, and 4 recite numerous variations of 'information' . . ., but it is unclear which (if any) of those terms is the antecedent for the disputed term 'said device account information.'" Dkt. No. 58 at 11 (citation omitted).

Plaintiff responds that "read in context, 'said device account information' refers to the 'complete device payment information' that is transmitted for processing and validated by 'a payment issuer authority.'" Dkt. No. 63 at 10. Plaintiff urges that Claim 4 recites that the "device account information" will be rejected unless it includes valid limited-use information, which Plaintiff argues implies that it comprises both static and dynamic data, matching the earlier-recited "complete device payment information." *See id.* at 11–12.

Defendant replies that Plaintiff's position lacks intrinsic record support and improperly conflates "device account information" with "complete device payment information" without showing they are the same. *See* Dkt. No. 71 at 8–9. Defendant also argues that Plaintiff's assertion that "device account information" includes "sub-pieces" is speculative and unsupported by the specification. *Id.* at 10.

In sur-reply, Plaintiff argues that there is no confusion because "the 'limited use information' cannot be the same as 'said device account information' because the same limitation in claim 4 uses each term," and "they cross-reference each other in a way that evidences the patentee considered them to be different." Dkt. No. 83 at 7. Plaintiff also argues that "there is no indication in the claim that 'unique device generated information' gets validated (as is required of the disputed phrase)," and "[i]t is just an input to the 'limited-use information' (as per the first clause of claim 4), which itself is different than 'said device account information.'" *Id.*

At the August 25, 2025 hearing, the parties presented oral arguments.

The Court's Analysis

Claim 4 of the '538 Patent depends from Claim 3, which in turn depends from Claim 1. Claims 1, 3, and 4 recite (emphasis added):

> 1. A method of performing a payment transaction, the method comprising:
> receiving an input at an electronic device corresponding to a priming operation of the electronic device by an authorized user; and,
> wherein the authorizing of a user of the electronic device comprises recognizing a user input using a human input sensor, and 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; and,
> receiving a request for a transaction payment at said electronic device via an NFC interface of the device; and,
> displaying, on a display of the device, a transaction payment request and at least a portion of an original static issuer-supplied payment account information associated with a payment method, for a user selection in paying the payment request; and,
> retrieving from a memory attached to a processor of the device, a device-specific static limited-use payment information, associated with said selected payment method; and,
> dynamically generating, by a processor of the device, device-specific limited-use payment information, for said selected payment method; and,
> using said limited-use payment information in place of at least a portion of said selected original issuer-supplied payment information for the transaction; and,
> combining of said dynamically-generated limited-use payment information with said static limited-use payment information, to generate *a complete device payment information*; and,
> transmitting *said complete device payment information* from said electronic device to a recipient reader via said NFC interface to the recipient NFC reader for a processing of the payment transaction; and,
> receiving information at said electronic device corresponding to a transaction status of the payment transaction, wherein such transaction status is at least partly dependent on *validation of the transmitted complete device payment information by a payment processor authority* and a payment issuer authority; and,
> visually conveying the transaction payment authorization status via a user-interface displayed on said display.
>
> * * *

> 3. The method of claim 1, further comprising receiving said confirmation result of *said complete device payment information* authentication status *from a payment processing authority* via at least one interface of a set of interfaces comprising: said device NFC interface, a wireless interface of said device.
>
> 4. The method of claim 3, wherein the generating the limited-use payment information utilizes a unique device generated information limited-in-use to said selected issuer-payment method, in payment transactions performed by said device, in place of said selected issuer-payment information; and,
>
> wherein *said device account information* will be rejected as *invalid* when not including a valid device generated limited-use information.

The term "said device account information" has no explicit antecedent basis because these claims do not recite any other "device account information."

In some cases, antecedent basis can be implicit. *See Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1371 (Fed. Cir. 2006) (holding that "an anode gel comprised of zinc as the active anode component" provided implicit antecedent basis for "said zinc anode"); *see also Ex Parte Porter*, 25 U.S.P.Q. 2d (BNA) 1144, 1145 (B.P.A.I. 1992) ("The term 'the controlled fluid' . . . finds reasonable antecedent basis in the previously recited 'controlled stream of fluid . . . .'"); *Fisher-Price, Inc. v. Graco Children's Prods.*, No. 05-1258, 154 F. App'x 903, 909 (Fed. Cir. Nov. 4, 2005) ("[a] claim is not invalid for indefiniteness if its antecedent basis is present by implication") (citations omitted).

Plaintiff submits that the implicit antecedent basis for "said device account information" is "complete device payment information," arguing that "the only information that is validated in claims 1 or 3 (from which claim 4 depends) is the 'complete device payment information.'" Dkt. No. 83 at 6; *see* Dkt. No. 63 at 12 ("'said device account information' refers to 'complete device payment information,' which is the information transmitted in connection with 'a processing of the payment transaction' and which is tied to the 'confirmation status' from said 'payment processing authority'").

Plaintiff does not persuasively demonstrate that the disputed term, which recites "account" information, is reasonably clear as referring back to a recital of "payment" information. This is not clear from the claim language. Despite Plaintiff's arguments, the recitals of "validation of the transmitted complete device payment information by a payment processor authority and a payment issuer authority" (Claim 1) and "receiving said confirmation result of said complete device payment information authentication status from a payment processing authority" (Claim 3) are not implicitly linked to the subsequent recital in Claim 4 of "wherein said device account information will be rejected as invalid when not including a valid device generated limited-use information." Plaintiff does not persuasively demonstrate that this determination of whether information is "invalid" in Claim 4 is necessarily linked to the particular "validation" in Claim 1 or the "authentication status" in Claim 3.

The phrase "device account" does not appear in the specification outside of the claims, so the patent provides no other apparent guidance regarding this term. Also, in addition to the "complete device payment information" that Plaintiff urges is the antecedent basis for "said device account information," Claim 1 also refers to, for example, "an original static issuer-supplied payment *account* information associated with a payment method" and "a *device*-specific static limited-use payment information." At the August 25, 2025 hearing, Plaintiff cited surrounding language in Claim 1 to argue that each such information is both device-specific and account-specific—and is combined to create "complete device account information," which is thus both device-specific and account-specific—but these proposed inferences lack sufficient support, and whether the words "account" or "device" imply any particular (or more general) antecedent basis relationship for "said device account information" is not reasonably clear.

The recital of "said device account information" in Claim 4 thus fails to "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus*, 134 S. Ct. at 2129.

The Court accordingly hereby finds that Claim 4 of the '538 Patent is **indefinite**.

C. "[device-transmitted] limited-use payment information"

Term	**Plaintiff's Proposed Construction**	**Defendant's Proposed Construction**
C. "[device-transmitted] limited-use payment information" U.S. Patent No. 11,176,538 Claim 7 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 2.

The Parties' Positions

Defendant submits that whereas a Certificate of Correction changed "said limited-use payment information" to "said limited-use payment information*s*" in Claim 1, no such change was made in Claim 7, thus implying a difference in meaning but without any guidance on what the term is referencing. Dkt. No. 58 at 18–19.

Plaintiff responds that "[t]he disputed 'device transmitted limited-use payment information' phrase refers to the 'dynamically-generated limited use payment information' . . . that, in claim 1, is combined with the 'static limited-use payment information' to generate a 'complete device payment information' . . . ." Dkt. No. 63 at 14. Plaintiff also argues that "[t]he changes to claim 1 have no bearing on the understandability of the terms of claim 7 (which must be analyzed in their own context)." *Id.* at 15.

Defendant's reply as to this term is set forth in a portion of the brief that exceeds the Court's standing ten-page limit for reply briefs where less than three patents are at issue for

claim construction, and this portion of Defendant's reply brief is therefore not considered. (*See* Standing Order Governing Proceedings (OGP) 4.4—Patent Cases, at 8; *see also* Aug. 2, 2022 Standing Order Governing Patent Proceedings, at 4.)

In sur-reply, Plaintiff argues:

> Google is correct that there are two portions of limited-use payment information that are part of claim 7: "static limited-use payment information" and "dynamically-generated limited-use payment information"—and that, read in a vacuum, the disputed phrase ("device-transmitted limited-use payment information") could refer to either. But claim construction is not done in a vacuum. Courts must consider the context of the claims and the intrinsic record as a whole. From the context of the claims, and the specification, it is clear that the disputed phrase in claim 7 refers to the "generated" limited-use information.

Dkt. No. 83 at 8 (citations omitted). Plaintiff argues that "the claims and specification focus on validation of the *dynamic* portion," and "'device-transmitted limited-use payment information' refers to 'device-generated limited-use payment information.'" *Id.* at 9.

At the August 25, 2025 hearing, the parties presented no oral arguments as to this disputed term in Claim 7 of the '538 Patent.

The Court's Analysis

Claim 7 of the '538 Patent depends from Claim 3, which in turn depends from Claim 1. Claims 1 and 7 recite, in relevant part (emphasis added):

> 1. A method of performing a payment transaction, the method comprising:
> receiving an input at an electronic device corresponding to a priming operation of the electronic device by an authorized user; and,
> wherein the authorizing of a user of the electronic device comprises recognizing a user input using a human input sensor, and 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; and,
> receiving a request for a transaction payment at said electronic device via an NFC interface of the device; and,
> displaying, on a display of the device, a transaction payment request and at least a portion of an original static issuer-supplied payment account information associated with a payment method, for a user selection in paying the payment request; and,

> retrieving from a memory attached to a processor of the device, *a device-specific static limited-use payment information*, associated with said selected payment method; and,
>
> dynamically generating, by a processor of the device, *device-specific limited-use payment information*, for said selected payment method; and,
>
> using *said limited-use payment informations* in place of at least a portion of said selected original issuer-supplied payment information for the transaction; and,
>
> combining of *said dynamically-generated limited-use payment information* with *said static limited-use payment information*, to generate a complete device payment information; and,
>
> *transmitting said complete device payment information* from said electronic device to a recipient reader via said NFC interface to the recipient NFC reader for a processing of the payment transaction . . . .
>
> * * *
>
> 7. The method of claim 3, wherein the visual conveying of the transaction status is further comprising at least one[] of a set of visual information including:
>
> a confirmation result of payment authority authenticating *said device-transmitted limited-use payment information*,
>
> a confirmation result of payment authority authenticating said device-transmitted complete device payment information, ...

Claim 1 originally recited "said limited-use payment information." Plaintiff obtained a Certificate of Correction ("COC") that changed this recital from "information" (singular) to "informations" (plural). The Eastern District of Texas in *Samsung* found that the uncorrected version of Claim 1 was indefinite. *Samsung* at 40 ("'said limited use payment information,' as recited in Claim 1 of the '538 Patent prior to the May 10, 2022 Certificate of Correction, was indefinite"). *Samsung* reasoned:

> Plaintiff argued that the word "information," like the word "sheep," inherently encompasses the plural. Plaintiff thus argued that the Certificate of Correction removed any doubt but did not actually change anything about the disputed term. Plaintiff's argument is unpersuasive because the reference to an antecedent (signaled by use of the word "said") results in ambiguity because of the presence of multiple potential antecedents, one of which is "static" and the other of which, by contrast, is "dynamically generated." The uncorrected claim was therefore unclear as to whether "said limited-use payment information" referred to "a device-specific static limited-use payment information," "device-specific limited-use payment information" that was "dynamically generated," or both. *See, e.g.,*

> *Bushnell Hawthorne, LLC v. Cisco Sys., Inc.*, No. 2019-2191, 813 F. App'x 522, 525 (Fed. Cir. May 14, 2020) ("With three different IP addresses to choose from, a POSA faced with the 'said different IP Address' limitation is left to wonder which of the different IP addresses is 'said' different one.").

Id. at 39–40; *see id.* at 37–40.

The same peril befalls Claim 7. Plaintiff argues that "said device-transmitted limited-use payment information" in Claim 7 refers to the "said dynamically-generated limited use payment information" in Claim 1. Dkt. No. 63 at 14. The recital of "said device-transmitted limited-use payment information," however, is unclear as to whether the antecedent basis is "a device-specific static limited-use payment information," "device-specific limited-use payment information" that was "dynamically generated," or perhaps both. Also, Claim 7 already separately recites "said device-transmitted complete device payment information," which weighs against relying on "complete device payment information" (generated, in Claim 1, by "combining of said dynamically-generated limited-use payment information with said static limited-use payment information") for antecedent basis.

Finally, Plaintiff cites Claim 4, arguing that "the validation by a payment processor authority recited in claim 4 requires a validation check of the 'device generated limited-use information,'" and "like claim 4, [Claim 7] recites confirmation of the dynamically generated limited-use payment information." *Id.*; *see id.* at 14–15. That is, Plaintiff infers that "said device-transmitted limited-use payment information" in Claim 7 likewise refers to dynamically-generated limited-use payment information. Even assuming that Plaintiff's inference is plausible, Plaintiff's "parallel structure" inference (*see id.*) is too attenuated to satisfy the "reasonable certainty" standard set forth by *Nautilus*. 134 S. Ct. at 2129.

Plaintiff's similar reliance on Claims 5 and 6 and the specification is likewise unpersuasive. *See* Dkt. No. 83 at 8–9 ("There is no similar indication across the claims and

specification regarding the static limited-use information; the claims and specification focus on validation of the dynamic portion.") (citing '538 Patent at 10:29–33 ("The power source is able to activate the processor unit such that a unique number may be generated by the multi-function electronic device and verified by the payment authority according to the timestamp and the transmitted user information."); citing *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum.")). Disclosure of a payment authority authenticating dynamically-generated limited-use payment information does not demonstrate with reasonable clarity that "said device-transmitted limited-use payment information" necessarily refers to dynamically-generated limited-use payment information. *See Nautilus*, 134 S. Ct. at 2129.

The Court accordingly hereby finds that Claim 7 of the '538 Patent is **indefinite**.

D. "said information" (Claim 9)

Term	**Plaintiff's Proposed Construction**	**Defendant's Proposed Construction**
D. "said information" U.S. Patent No. 11,176,538 Claim 9 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 2.

The Parties' Positions

Defendant argues that "the antecedent for 'said information' may be any, or some combination, of the different types of 'information' recited in Claims 1 and 8 (e.g., 'a device-specific static limited-use payment information,' '[dynamically-generated] device-specific limited-use payment information,' 'an information unique to the user and device,' 'at least one payment authority-supplied information,' 'all valid device generated limited-use information

elements,' 'said generated payment information,' 'said transaction-specific sequence count information,' 'said device-specific information,' 'said user-specific information,' and 'said authority-specific information')." Dkt. No. 58 at 16.

Plaintiff responds "'[s]aid information' in claim 9 refers to the four pieces of 'information' introduced in claim 8, from which claim 9 depends." Dkt. No. 63 at 16. Plaintiff argues that Defendant neglects the context in which the term is used, because "'said information' cannot be, for example, the 'device-specific static limited-use payment information' as Google suggests, because that information is not 'generated.'" *Id.* at 17.

Defendant's reply as to this term is set forth in a portion of the brief that exceeds the Court's standing ten-page limit for reply briefs where less than three patents are at issue for claim construction, and this portion of Defendant's reply brief is therefore not considered. (*See* Standing Order Governing Proceedings (OGP) 4.4—Patent Cases, at 8; *see also* Aug. 2, 2022 Standing Order Governing Patent Proceedings, at 4.)

In sur-reply, Plaintiff maintains that "said information" in Claim 9 "is cross-referencing the introduction of the four pieces of information in claim 8." Dkt. No. 83 at 9.

At the August 25, 2025 hearing, the parties presented oral arguments.

The Court's Analysis

Claim 9 depends from Claim 8, which in turn depends from Claim 1. Claims 8 and 9 recite (emphasis added):

> 8. The method of claim 1, wherein *the generating the limited-use payment information* is comprising:
>
> a device-specific account number; and,
>
> a device-internal transaction sequence counter count; and,
>
> an information unique to the user and device which does not pass in the transaction; and,
>
> at least one payment authority-supplied information which does not pass in the transaction, wherein the complete device payment information is only valid

> for use in place of an issuer payment method in authorizable payments when comprising all valid device generated limited-use information elements, and
>
> wherein *said generating* is limiting in-scope-of-use said generated payment information, for said user-selected issuer payment method option, to a unique-per-device unique-per-use one-time transacting by said combining device; by *combining said information elements including: said transaction-specific sequence count information, said device-specific information, said user-specific information, and said authority-specific information*.
>
> 9. The method of claim 8, wherein the generating the limited-use payment information further utilizes a secure *combining of said information*, by at least one processor of the device, into a singular cryptogram number, capable of passing in at least a portion of the device transaction payment information.

Defendant argues that "said information" in Claim 9 is unclear because it could refer back to any of the many different recitals of "information" in Claim 1 or Claim 8, such as "a device-specific static limited-use payment information," "[dynamically-generated] device-specific limited-use payment information," "an information unique to the user and device," "at least one payment authority-supplied information," "all valid device generated limited-use information elements," "said generated payment information," "said transaction-specific sequence count information," "said device-specific information," "said user-specific information," and "said authority-specific information." Dkt. No. 58 at 16.

In context, however, the recital of "combining said information elements including: said transaction-specific sequence count information, said device-specific information, said user-specific information, and said authority-specific information" in Claim 8 provides reasonably clear implicit antecedent basis for the recital of "combining of said information" in Claim 9. *See Energizer*, 435 F.3d at 1371 (holding that "an anode gel comprised of zinc as the active anode component" provided implicit antecedent basis for "said zinc anode"); *see also Ex Parte Porter*, 25 U.S.P.Q. 2d (BNA) at 1145 ("The term 'the controlled fluid' . . . finds reasonable antecedent basis in the previously recited 'controlled stream of fluid . . . .'"); *Fisher-Price*, 154 F. App'x at

909 ("[a] claim is not invalid for indefiniteness if its antecedent basis is present by implication") (citations omitted).

At the August 25, 2025 hearing, Defendant argued that the recital of "combining" could refer to combining more or fewer than the four recited types of "information" identified by Plaintiff. A fair reading of Claims 8 and 9 in conjunction with each other, however, is that the recital of "combining of" in Claim 9 links "said information" to the recital of "combining" in Claim 8. Moreover, the recital of "combining" in Claim 9 demonstrates that "said information" in Claim 9 does not refer to merely a *single* "information" recited in Claim 1 or Claim 8, as Defendant suggests it might, but rather refers to *multiple*, as Plaintiff argues. The opinion of Defendant's expert mirrors the arguments in Defendant's briefing and is likewise unpersuasive. *See* Dkt. No. 58, Ex. 2, May 22, 2025 Black Decl. ¶ 45.

The Court therefore hereby expressly rejects Defendant's indefiniteness argument. Defendant presents no alternative proposed construction, but construction is appropriate to set forth the proper antecedent basis.

The Court accordingly hereby finds that **the antecedent basis for "said information" in Claim 9 of the '538 Patent is "said transaction-specific sequence count information, said device-specific information, said user-specific information, and said authority-specific information" in Claim 8.**

E. "said information" (Claim 27)

Term	**Plaintiff's Proposed Construction**	**Defendant's Proposed Construction**
E. "device information" U.S. Patent No. 11,176,538 Claim 27 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 2.

The Parties' Positions

Defendant argues that "Claim 27 recites 'said information' without describing which, if any, of the claim's previously-recited 'information' is encompassed in 'said information.'" Dkt. No. 58 at 18.

Plaintiff responds that this term "parallels the structure in the immediately preceding limitation and refers to 'a payment account information, [and] a user information' . . . ." Dkt. No. 63 at 18. Plaintiff argues:

> [I]n the wherein clause, "said transaction sequence counter" . . . must refer to the "device transaction sequence count" in the preceding limitation; both of those phrases refer to sequence counts. Google does not dispute that. Similarly, "said secrets," . . . refers to the "information stored in the device and specific to the device and which is not communicated in the transaction" in the preceding limitation. The fact that this is "not communicated" is the clue that this is *secret* information. What is left from the immediately preceding limitation? It is the "payment account information" and the "user information". . . . This is therefore what is being referenced with "said information." The claim phrases are even described in the same order . . . in both limitations.

Id. at 19.

Defendant's reply as to this term is set forth in a portion of the brief that exceeds the Court's standing ten-page limit for reply briefs where less than three patents are at issue for claim construction, and this portion of Defendant's reply brief is therefore not considered. (*See* Standing Order Governing Proceedings (OGP) 4.4—Patent Cases, at 8; *see also* Aug. 2, 2022 Standing Order Governing Patent Proceedings, at 4.)

In sur-reply, Plaintiff argues that "neither Google nor Dr. Black explain why a POSITA would look to limitations in claim 25 about displayed information for antecedent basis instead of the immediately preceding limitation in the same claim 27, or how these elements would be

'known to both said device, and to said payment processing authority' as recited in claim 27." Dkt. No. 83 at 10 (citations omitted).

At the August 25, 2025 hearing, the parties presented oral arguments.

The Court's Analysis

Claim 27 of the '538 Patent depends from Claim 25, and Claims 25 and 27 recite in relevant part (emphasis added):

> 25. A non-transitory, computer-readable medium storing computer executable instructions that when executed by one or more processors, cause the one or more processors to:
>
> . . .
>
> enable the electronic device for imminent performance of a payment operation responsive to the priming action of said valid user;
>
> display a summary of *online purchase information* including the *merchant information* and the purchase amount; and,
>
> display at least one selectable issuer payment account methods on a display; and,
>
> receive a payment selection and approval authorization from said valid device user via a human input sensing at the device; and
>
> responsive to receiving a valid user transaction payment approval, generate *a device-specific limited-use payment information* for use in place of at least a portion of *said selected issuer payment account information* on the device, form *a complete combined device payment information* from a dynamically generated portion and a statically generated portions stored in a memory of the device . . .
>
> * * *
>
> 27. The non-transitory, computer-readable medium of claim 25, wherein the one or more processors include a cryptographic processor, and wherein the executable instructions further cause the one or more processors to:
>
> cryptographically compute a dynamically generated one-time-use cryptogram number,
>
> and combine said dynamically generated portion with a static device-specific account number known to a payment processing authority and limited in use to the device use in place of an issuer payment method; and,
>
> wherein further said cryptogram number is created by said device processor cryptographic *combination of device transaction sequence counter count, a payment account information, a user information, and information stored in the device and specific to the device and which is not communicated in the transaction*; and,

> wherein said transaction sequence counter, *said information* and said secrets are known to both said device, and to said payment processing authority; and,
>
> wherein further said static device-specific device account number is known to a payment issuer, and has a device-specific expiration date of limited duration of validity; and,
>
> wherein the generating said complete combined device payment information comprises a device combining said static device-specific device account number, said device account expiration date, said user information, said payment account information, and said dynamically generated cryptogram,
>
> and transmitting said complete device payment information when said issuer payment account method is selected.

Plaintiff persuasively argues that the phrase "said transaction sequence counter, said information and said secrets" in Claim 27 aligns with "device transaction sequence counter count, a payment account information, a user information, and information stored in the device and specific to the device and which is not communicated in the transaction" in the preceding limitation. At the August 25, 2025 hearing, Plaintiff noted that the word "information" is a "collective noun" that can encompass both singular and plural.

Defendants responded at the hearing that the Plaintiff's reliance on "information" as being a "collective noun" merely underscores the lack of reasonable clarity.

But whereas Defendants note that above-reproduced Claim 25 (from which Claim 27 depends) recites other "information," the above-noted surrounding claim language in Claim 27 should be considered. To whatever extent there is any purported confusion, the operable principle is that the claims are read primarily from a technical perspective rather than a legal perspective, and from this perspective the antecedent basis is reasonably clear. *See Oyster Optics, LLC v. Ciena Corp.*, No. 4:17-CV-05920-JSW, 2020 WL 13891311, at *6 (N.D. Cal. Aug. 10, 2020) (White, J.) ("[T]he claim construction here presents a choice between a technical application of antecedent basis that defeats the purpose of the invention and requires imagining an unusual configuration of undisclosed components, and a reading that finds antecedent basis in

an implied received signal. The first reading is that of a lawyer; the second reading is that of a person of ordinary skill in the art. The second reading governs.") (citing *Phillips*, 415 F.3d at 1313).

The Court therefore hereby expressly rejects Defendant's indefiniteness argument. Defendant presents no alternative proposed construction, but construction is appropriate to set forth the proper antecedent basis.

The Court accordingly hereby finds that **the antecedent basis for "said information" in Claim 27 of the '538 Patent is "a payment account information" and "a user information" in Claim 27.**

F. "said secrets"

Term	**Plaintiff's Proposed Construction**	**Defendant's Proposed Construction**
F. "said secrets" U.S. Patent No. 11,176,538 Claim 27 (Proposed by Defendant)	Not indefinite. Plain and ordinary meaning.	Indefinite

Dkt. No. 85 at 2.

The Parties' Positions

Defendant argues that "said secrets" is indefinite because neither dependent Claim 27 nor Claim 25, from which Claim 27 depends, recites any "secrets" that the phrase "said secrets" could be referencing for antecedent basis. Dkt. No. 58 at 20.

Plaintiff responds that "[b]ecause 'the information stored in the device and specific to the device' is *not communicated in the transaction* but is still known to the device and the payment processing authority, then such information must constitute 'secrets' (because only the device

and the payment processing authority know them, and they cannot be intercepted because they are not communicated in a transaction)." Dkt. No. 63 at 20.

Defendant's reply as to this term is set forth in a portion of the brief that exceeds the Court's standing ten-page limit for reply briefs where less than three patents are at issue for claim construction, and this portion of Defendant's reply brief is therefore not considered. (*See* Standing Order Governing Proceedings (OGP) 4.4—Patent Cases, at 8; *see also* Aug. 2, 2022 Standing Order Governing Patent Proceedings, at 4.)

In sur-reply, Plaintiff argues that "[a]ntecedent basis can be implied and claim phrases need not be recited verbatim in the specification to be definite," and "[i]t is irrelevant to the antecedent basis analysis that the word secrets can, in general, refer to other information." Dkt. No. 83 at 10.

At the August 25, 2025 hearing, the parties presented oral arguments.

The Court's Analysis

Claim 27 of the '538 Patent recites (emphasis added):

> 27. The non-transitory, computer-readable medium of claim 25, wherein the one or more processors include a cryptographic processor, and wherein the executable instructions further cause the one or more processors to:
>
> *cryptographically compute* a dynamically generated *one-time-use cryptogram number*,
>
> and combine said dynamically generated portion with a static device-specific account number known to a payment processing authority and limited in use to the device use in place of an issuer payment method; and,
>
> wherein further *said cryptogram number is created by* said device processor *cryptographic combination of* device transaction sequence counter count, a payment account information, a user information, and *information stored in the device and specific to the device and which is not communicated in the transaction*; and,
>
> wherein said transaction sequence counter, said information and *said secrets* are known to both said device, and to said payment processing authority; and,

> wherein further said static device-specific device account number is known to a payment issuer, and has a device-specific expiration date of limited duration of validity; and,
>
> wherein the generating said complete combined device payment information comprises a device combining said static device-specific device account number, said device account expiration date, said user information, said payment account information, and *said dynamically generated cryptogram*,
>
> and transmitting said complete device payment information when said issuer payment account method is selected.

Plaintiff persuasively argues that "said secrets" in Claim 27 aligns with the recital of "information stored in the device and specific to the device and which is not communicated in the transaction" in the immediately preceding limitation in Claim 27. Also, the specification refers to "secrets" and provides additional context for understanding this usage of "said secrets" in Claim 27:

> The limited-duration payment number is able to be generated according to the selected account, a timestamp, a transaction amount, an indicated merchant, user key or *secrets*, on-card unique hardware *secrets*, payment authority key or *secrets*, user input from the card interface, and other information associated with the transaction.

'538 Patent at 7:20–25 (emphasis added).

At the August 25, 2025 hearing, Defendant emphasized that Plaintiff's infringement contentions refer to an "IMEI" (International Mobile Equipment Identity, which identifies a particular hardware device) as an example of a secret in the accused instrumentalities. Defendant submitted that whereas an IMEI would also be known to a manufacturer and a service provider, a "secret" must be known to only the recited device and the recited payment processing authority. Even if this infringement-contention-based argument is taken into consideration in these claim construction proceedings, Defendant identifies no restriction in the claim or the specification (or even in any extrinsic evidence) regarding how widely the "secret" can be known.

Finally, Plaintiff notes that Defendant's expert has testified that "information stored in the device and specific to the device and which is not communicated in the transaction" could refer to other kinds of information besides "secrets," but Defendant's expert also testified that "secrets" could be, for example, cryptographic keys, and that "secrets" would be a type of "information stored in the device and specific to the device and which is not communicated in the transaction." Dkt. No. 63, Ex. A, June 10, 2025 Black dep. rough tr. at pp. 162–63. This understanding of a technical expert reinforces that "said secrets" can readily be read as referring back to "information stored in the device and specific to the device and which is not communicated in the transaction." The written opinions of Defendant's expert do not compel otherwise. Dkt. No. 58, Ex. 2, May 22, 2025 Black Decl. ¶¶ 48–49.

The Court therefore hereby expressly rejects Defendant's indefiniteness argument. Defendant presents no alternative proposed construction, but construction is appropriate to set forth the proper antecedent basis.

The Court accordingly hereby finds that **the antecedent basis for "said secrets" in Claim 27 of the '538 Patent is "information stored in the device and specific to the device and which is not communicated in the transaction" in Claim 27.**

VII. CONCLUSION

In conclusion, for the reasons described herein, the Court adopts the constructions in Appendix A, below, as its final constructions.

SIGNED this 28th day of August, 2025.

DEREK T. GILLILAND
UNITED STATES MAGISTRATE JUDGE

APPENDIX A

Term	Plaintiff's Proposal	Defendant's Proposal	Court's Final Construction
A. "payment information," "issued payment information," "an issuer provided payment information," "the issuer provided payment information," "a static device account number payment information," "the payment information," "a issuer provided payment information"; "issuer provided payment information" U.S. Patent No. 10,339,520 Claim 10	Not indefinite. Plain and ordinary meaning.	Indefinite	The antecedent basis for "the payment information" in Claim 10 of the '520 Patent is "payment information" recited in the preamble.
B. "said device account information" U.S. Patent No. 11,176,538 Claim 4	Not indefinite. Plain and ordinary meaning.	Indefinite	Indefinite
C. "[device-transmitted] limited-use payment information" U.S. Patent No. 11,176,538 Claim 7	Not indefinite. Plain and ordinary meaning.	Indefinite	Indefinite
D. "said information" U.S. Patent No. 11,176,538 Claim 9	Not indefinite. Plain and ordinary meaning.	Indefinite	The antecedent basis for "said information" in Claim 9 of the '538 Patent is "said transaction-specific sequence count information, said device-specific information, said user-specific information, and said authority-specific information" in Claim 8.
E. "said information" U.S. Patent No. 11,176,538 Claim 27	Not indefinite. Plain and ordinary meaning.	Indefinite	The antecedent basis for "said information" in Claim 27 of the '538 Patent is "a payment account information" and "a user information" in Claim 27.
F. "said secrets" U.S. Patent No. 11,176,538 Claim 27	Not indefinite. Plain and ordinary meaning.	Indefinite	The antecedent basis for "said secrets" in Claim 27 of the '538 Patent is "information stored in the device and specific to the device and which is not communicated in the transaction" in Claim 27.