

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

CARDWARE INC.,

Plaintiff

V.

GOOGLE LLC,

Defendant.

Civil Action No. 7:24-CV-00278-DC-DTG

JURY TRIAL DEMANDED

DEFENDANT GOOGLE LLC'S CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

CardWare asserts more than 130 claims from four related patents that share the same specification and cover similar aspects of a payment system. Among the asserted claims are many that are poorly drafted. Indeed, a previous suit brought by CardWare in the Eastern District of Texas against a different defendant already resulted in a determination that various terms are indefinite. The terms at issue here suffer from similar technical defects, including the varied and inconsistent use of terms like “information” as well as improper or non-existent antecedents that render claims incomprehensible. These are textbook examples of indefinite claims. And CardWare’s interpretation of these terms as having their “plain and ordinary meaning” finds no support in the intrinsic record. In contrast, Google’s indefiniteness positions are supported by a POSITA’s understanding of the intrinsic record, as reflected in Google’s expert declaration.

II. FACTUAL BACKGROUND

CardWare has asserted the same patents before. *See CardWare, Inc. v. Samsung Elecs. Co., Ltd. et al*, Case No. 2:22-cv-00141 (E.D. Tex.). During claim construction, the Eastern District of Texas found certain terms indefinite. Ex. 1 (*CardWare v. Samsung* Claim Construction Memorandum and Order). Specifically, the court found the following indefinite:

- “the payment information” (’520 Patent, Claims 1–9);
- “said dynamically generating said card validation value number” (’538 Patent, Claim 20); and
- “said limited-use payment information” (’538 Patent, Claim 1, prior to issuance of a related Certificate of Correction).

Notwithstanding those findings, CardWare asserted these claims against Google in this case, as well as against Apple in an ongoing parallel litigation. *See CardWare, Inc. v. Apple Inc.*, Case No. 1:25-CV-00446-ADA. The claims were among those asserted in CardWare’s infringement contentions, including the related charts, and therefore necessitated Google charting

corresponding prior art references in its invalidity contentions. Days before this brief was due, however, CardWare said it was dropping Claims 1–9 of the ’520 Patent and Claim 20 of the ’538 Patent, as well as willing to stipulate that it will not seek damages for the infringement of Claim 1 (and dependent Claims 2–18) of the ’538 Patent for the period prior to May 10, 2022—when the related Certificate of Correction issued—thereby mooted the need to address these particular terms as part of claim construction in this case.

III. LEGAL STANDARD

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (citations omitted). The claims perform the “notice” function of legal documents; thus, precision and clarity are necessary. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336 (Fed. Cir. 2010); *see also Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014) (“A patent must be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them.” (cleaned up) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996))).

The claims are viewed and understood in the context of the specification and the prosecution history. *Nautilus*, 572 U.S. at 910. Section 112, ¶ 2 is read to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. *Id.* As summarized in *Phillips v. AWH Corp.*, the court looks first to the intrinsic record of the patent document, including “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” 415 F.3d at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). In addition, expert testimony may “provide background

on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* at 1317.

“Claim indefiniteness is decided from the viewpoint of persons skilled in the field of the invention.” *Nature Simulation Sys. Inc. v. Autodesk, Inc.*, 50 F.4th 1358 (Fed. Cir. 2022) (citing *Personalized Media Commc’ns, LLC v. USITC*, 161 F.3d 696, 705 (Fed. Cir. 1998)). A claim term that refers to a non-existent antecedent in the claim can render claims indefinite. *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008); *see also Bushnell Hawthorne, LLC v. Cisco Sys., Inc.*, 813 F. App’x 522, 525–26 (Fed. Cir. 2020) (affirming the district court’s finding that the antecedent basis for “said different IP Address” was unclear because the term could refer to any of three types of IP addresses in the claim).

IV. ARGUMENT

A. U.S. Patent No. 10,339,520

1. **“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”**

Claims	Google’s Construction	CardWare’s Construction
’520 Patent: Claim 10	Indefinite	Not indefinite. Plain and ordinary meaning.

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.

Additionally, the scope of “the payment information” and “a issuer provided payment information” is unclear. Ex. 2 (Declaration of Dr. John Black) ¶¶ 34–41.¹

In *CardWare Inc., v. Samsung Electronics Co., Ltd. et al*, Case No. 2:22-cv-00141 (E.D. Tex.), the Eastern District of Texas found certain terms indefinite. See Ex. 1 (*CardWare v. Samsung* Claim Construction Memorandum and Order); see *supra* § II. The terms of this section were also briefed and argued but the court did not find them indefinite. Ex. 1 at 21–23. Rather, the court found that “the antecedent basis for ‘the payment information’ in Claim 10 of the ’520 Patent is the ‘payment information’ recited in the preamble.” *Id.* at 23. The court explained that Claim 10 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.’” *Id.* The court construed the disputed terms to have their plain meaning. *Id.* For the reasons explained below, Google respectfully asserts that the Eastern District of Texas erred in that ruling and the terms of Claim 10 of the ’520 Patent are indefinite.² Ex. 2 ¶¶ 22, 34–41.

a. There is no clear antecedent for “the payment information.”

Claim 10 recites:

10. A method of storing and generating payment information in an electronic device, the method comprising:

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;

wherein the electronic device comprises device-specific and user-specific information; and,

¹ In support of this brief, Google submits the declaration of Dr. John Black (Ex. 2), an expert in the field of networking, data structures, security, and cryptography.

² Google raises additional arguments regarding the indefiniteness of Claim 10 of the ’520 Patent that were not raised in the Eastern District of Texas litigation.

wherein the issuer provided payment information is communicated wirelessly; and,

receiving wirelessly a static device account number payment information for storage on the electronic device; and wherein

at least a portion of the payment information is a limited-use number for limited use by the device, in place of a [sic] issuer provided payment information; and,

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

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.

'520 Patent at 17:8–33. The antecedent for “the payment information” (yellow highlight) is unclear. Ex. 2 ¶ 35. It could refer back to any of “payment information,” “issued payment information,” “an issuer provided payment information,” or “a static device account number payment information” (green highlights). *Id.* The language of Claim 10 gives no indication which antecedent “payment information” (or plurality of payment information) is intended by the recitation of “the payment information.” *Id.*

Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims. *See Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001); *Phillips*, 415 F.3d at 1314 (“Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.”) (citation omitted). Claim 23 of the '520 Patent describes “the payment information” in a similar manner as recited in a portion of Claim 10. *See* '520 Patent at 17:21–23. For instance, Claim 23 recites that “the payment information” comprises

“static portions” and is a number of “limited-duration expiration date, to be used in place of issuer provided information.” *Id.* at 20:25–30. Like Claim 23, Claim 10 recites that “the payment information” is of limited use and used “in place of a issuer provided payment information.” *Id.* at 17:21–23. Thus, because these claims use “the payment information” in a similar manner, one plausible antecedent for Claim 10’s “the payment information” could be “a static device account number payment information.”³ Ex. 2 ¶ 36.

The language and structure of Claim 10 itself, however, suggests that “the payment information” (yellow highlight) might instead refer to the previously recited “issued payment information” or “an issuer provided payment information.” ’520 Patent at 17:10–13. Both “issued payment information” and “an issuer provided payment information” are types of payment information that precede “the payment information” in Claim 10. And while it is true that the yellow-highlighted “the payment information” is used “in place of a issuer provided payment information” (*id.* at 17:21–23), it does not follow that this recitation of issuer provided payment information refers back to either of the preceding “issued payment information” or “an issuer provided payment information.” Ex. 2 ¶ 37. This is because a POSITA would recognize that the disputed limitation states that “the payment information” is used in place of “*a* issuer provided payment information” (emphasis added). That is, the use of the article “a” indicates a new recital of issuer provided payment information that has not been previously recited in the claim. Accordingly, “the payment information” (yellow highlight) is presumably being used in place of

³ Indeed, CardWare’s ’520 Patent infringement contentions assert that a DPAN (dynamic primary account number) is “the payment information” of the disputed limitation. Ex. 3 (’520 Patent Infringement Contentions) at 95 (claim limitation 10[e]). CardWare also maps the DPAN to Claim 10’s “a static device account number payment information.” *Id.* at 87 (claim limitation 10[d]). CardWare’s infringement contentions thus treat “a static device account number payment information” as the antecedent for “the payment information.”

some *other* issuer provided payment information—not the previously recited “issued payment information” or “an issuer provided information.” As such, “the payment information” term of Claim 10 might refer back to either “issued payment information” or “an issuer provided information.” Ex. 2 ¶ 37.

There is yet another way to interpret the antecedent for “the payment information,” adding further ambiguity. The Eastern District of Texas found that the antecedent for “the payment information” is “payment information” recited in the preamble. Ex. 1 at 23. There, the court explained that the preamble’s recitation of “payment information” introduces the term “in a generic manner so as to encompass the various recitals of ‘information’ involved in ultimately ‘making a payment transaction.’”⁴ *Id.* Respectfully, this explanation cannot be correct. As discussed above, the claim language distinguishes different types of payment information. To say that “the payment information” refers to *all* of them is incongruous, particularly in context. Indeed, it is not clear how the term can refer back to a generic recital of all information involved in making a payment transaction. Ex. 2 ¶ 38.

The specification provides no guidance on the correct interpretation. *Id.* ¶ 39. A POSITA would need to guess which previous recitation of payment information is the correct antecedent. As the Federal Circuit has noted, it is the patent drafter’s responsibility to avoid such “textual sloppiness,” *SIMO Holdings, Inc. v. H.K. uCloudlink Network Tech., Ltd.*, 983 F.3d 1367, 1378 (Fed. Cir. 2021), and resolve ambiguity, *Halliburton*, 514 F.3d at 1255. At the same time, courts should not rewrite claims to avoid invalidity. *Horizon Pharma, Inc. v. Dr. Reddy’s Labs. Inc.*, 839 F. App’x 500, 505 (Fed. Cir. 2021).

⁴ The court construed the disputed terms of this section to have their plain meaning. Ex. 1 at 23.

The intrinsic record and CardWare’s own statements indicate that the antecedent for “the payment information” may be “a static device account number payment information.” The language of Claim 10 itself indicates that the antecedent could alternatively be “issued payment information” or “an issuer provided information.” And the Eastern District of Texas determined that the antecedent for the disputed term was the preamble’s “payment information.” Given these ambiguities, a POSITA could not be reasonably certain regarding the scope of “the payment information.” Ex. 2 ¶¶ 34–39.

b. The scope of “payment information” is not clear.

Even applying the Eastern District of Texas court’s “plain meaning” interpretation, the scope of “payment information” is not reasonably certain. Ex. 2 ¶ 40. The pertinent portion of Claim 10 recites:

10. A method of storing and generating payment information in an electronic device, the method comprising:

...

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,

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

’520 Patent at 17:8–29. Here, the preamble recites storing and generating payment information (green highlight). *Id.* The claim then recites that at least a portion of “the payment information” (yellow highlight) is a limited-use number for limited use by the device. *Id.* The subsequent limitation recites the dynamic generation of a one-time limited-use number based on at least one of a set of information that includes “payment information” (blue highlight). *Id.* But if the

preamble’s “payment information” encompasses *all* recitals of information appearing throughout the claim (Ex. 1 at 23), as the court found in the *Samsung* matter, the scope of “payment information” (blue highlight) used in the dynamic generation of a one-time limited use number is ambiguous. Ex. 2 ¶ 40. Specifically, and as noted above (*supra* III.A.1.a), 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 number. Thus, the *Samsung* court’s interpretation cannot be right.

c. The scope of “a issuer provided payment information” is not clear.

The scope of “a issuer provided payment information” is also unclear. Ex. 2 ¶ 41. The pertinent portion of Claim 10 recites:

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**;

wherein the electronic device comprises device-specific and user-specific information; and,

wherein **the issuer provided payment information** is communicated wirelessly; and,

receiving wirelessly a static device account number payment information for storage on the electronic device; and wherein

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

...

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.

’520 Patent at 17:10–33. The claim recites that “the payment information” is used by the device “in place of a issuer provided payment information,” as highlighted in yellow. *Id.* The claim

previously recites “issued payment information,” “an issuer provided payment information,” and “the issuer provided payment information.” As discussed above, 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. Ex. 2 ¶ 41. The final limitation of the claim recites using static and dynamic numbers together in place of “issuer provided payment information.” ’520 Patent at 17:30–33. This recitation lacks “a” or “the” to indicate whether this is a newly recited issuer provided payment information or a previously recited instance. Therefore, it is unclear how the yellow-highlighted term relates to “issuer provided payment information” in the final limitation of the claim, if at all. Ex. 2 ¶ 41. Accordingly, a POSITA would not be reasonably certain regarding the scope of this term. *Id.*

It is axiomatic that patent law requires claims, read in light of the intrinsic record, to be reasonably certain to a POSITA. *Nautilus*, 572 U.S. at 901. Here, for all of the reasons above, Claim 10 of the ’520 Patent is not. Therefore, the claim is indefinite. Ex. 2 ¶¶ 34–41.

B. U.S. Patent No. 11,176,538

1. “said device account information”

Claims	Google’s Construction	CardWare’s Construction
’538 Patent: Claim 4	Indefinite	Not indefinite. Plain and ordinary meaning.

The term “said device account information” in Claim 4 of the ’538 Patent is indefinite because a POSITA could not determine its scope with reasonable certainty. Ex. 2 ¶ 42. Claim 4 depends from Claims 1 and 3. Those claims, in pertinent part, recite:

1. A method of performing a payment transaction, the method comprising:

...

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,

...

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

'538 Patent at 19:35–20:29.

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.

Id. at 20:34–39.

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.

Id. at 20:40–48. Claim 4 recites “**said device account information**” (yellow highlight) (emphasis added), suggesting that it refers back to some previous recitation of information. Ex. 2 ¶¶ 42. But

“said device account information” has no antecedent in any of Claims 1, 3, and 4; that term first appears in Claim 4. *Id.* As detailed above in green, Claims 1, 3, and 4 mention “limited-use payment informations,” “selected original issuer-supplied payment information,” dynamic/static “limited-use payment information,” “complete device payment information,” “information” at a device, and “unique device generated information” in various places. *Id.* That is, Claims 1, 3, and 4 recite numerous variations of “information” (green highlights), but it is unclear which (if any) of those terms is the antecedent for the disputed term “said device account information.” *Id.* On the one hand, it could be the “device-specific static limited-use payment information” that is retrieved from the memory of the device. On the other hand, “said device account information” might refer to the “dynamically-generated limited-use payment information” that is combined with that static limited-use payment information “to generate a complete device payment information.” In independent Claim 1, the “static limited-use payment information,” “dynamically-generated limited-use payment information,” and resultant “complete device payment information” all are device-specific. Thus, a POSITA would have to guess which (if any) of these various device-specific informations is intended by Claim 4’s recitation of “said device account information.” The specification provides no guidance: it never mentions “device account information” and never explains how, or if, various types of information relate to one another. *See generally* ’538 Patent; *Id.*

As such, a POSITA would not be reasonably certain about the scope of this term, and it is therefore indefinite. *Id.*

2. “said information”

Claims	Google’s Construction	CardWare’s Construction
’538 Patent: Claims 6, 9, 27	Indefinite	Not indefinite. Plain and ordinary meaning.

Claims 6, 9, and 27 of the ’538 Patent are indefinite because a POSITA would not be reasonably certain about the scope of “said information” recited in each claim. Ex. 2 ¶¶ 43–46. Claim 6 depends from Claim 3, which depends from Claim 1. Those claims, in pertinent part, recite:

1. A method of performing a payment transaction, the method comprising:

...

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; 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 . . .

'538 Patent at 19:35–20:29.

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.

Id. at 20:34–39.

6. The method of claim 3, wherein the generating **the limited-use payment information** further utilizes a secure combination of **said information** with a device account number, a device sequence counter count, device-specific information, payment processing authority specific information; and. . .

Id. at 21:12–17. Claim 6 recites “*said* information” (yellow highlight) (emphasis added), suggesting that it refers back to some previous recitation of information. Ex. 2 ¶ 43. The disputed term appears in a limitation that refers to generating limited-use payment information by utilizing some combination of numbers and/or information. '538 Patent at 21:12–17. Given that the claims at issue are replete with recitations of different types of “information” (*i.e.*, green highlights above), it’s uncertain which, if any, is *the* correct antecedent. Indeed, there are multiple possibilities: “original static issuer-supplied payment account information”; “a device-specific static limited-use payment information”; “[dynamically-generated] device-specific limited-use payment information”; “limited-use payment informations”; and “a complete device payment information.” Ex. 2 ¶ 43. The specification provides no guidance to resolve the uncertainty. *Id.* A POSITA cannot reasonably deduce which, if any, “information” is the correct antecedent; each is similarly plausible. *Id.*

Notably, the antecedent for Claim 6's "said information" cannot be the "limited-use payment information" recited in Claim 6. Such an interpretation would render the claim circular. For instance, if "said information" refers back to "the limited-use information," that would mean that "said information" is used in generating itself: "wherein the generating the limited-use payment information further utilizes a secure combination of said information the limited-use payment information with a device account number, a device sequence counter count, device-specific information, payment processing authority specific information." This would be nonsensical. Ex. 2 ¶ 44. Therefore, the proper antecedent for "said information" must be some other "information" previously recited. For the reasons stated above, that antecedent is unclear rendering the term indefinite. *Id.*

Claim 9 depends from Claim 8, which depends from Claim 1. The pertinent portions of Claims 8 and 9 recite:

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.

'538 Patent at 21:51–22:11. Like Claim 6 above, Claim 9 recites “**said** information” (yellow highlight) (emphasis added), suggesting that it refers back to some previous recitation of information and appears in a limitation that refers to generating limited-use payment information.

'538 Patent at 22:5–11. Ex. 2 ¶ 45. Claim 8 recites numerous different types of information. Claim 1, from which Claim 8 depends, also recites numerous types of information. Thus, 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”). The specification provides no guidance to resolve this ambiguity. *See generally* '538 Patent. Given the myriad possible antecedents, the scope of the term “said information” is not reasonably certain to a POSITA. Ex. 2 ¶ 45. Moreover, Claim 9 presents the same circularity issues discussed in relation to Claim 6. *See supra*.

The scope of Claim 27's recitation of “said information” is unclear rendering the claim indefinite. Ex. 2 ¶ 46. Claim 27 depends from Claim 25. The pertinent portions of Claims 25 and 27 recite:

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:

...

display a summary of online purchase information including the merchant information and the purchase amount; 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 ...

'538 Patent at 24:49–25:16.

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,

...

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 ...

'538 Patent at 25:41–26:5. It is unclear which previously recited “information” the term “said information” references. Ex. 2 ¶ 46. For instance, Claim 27 recites creation of a cryptogram

number by combination of a transaction sequence counter count, “a payment account information,” “a user information,” and “information stored in the device and specific to the device.” ’538 Patent at 25:51–56. In the next limitation, Claim 27 recites “said information” without describing which, if any, of the claim’s previously-recited “information” is encompassed in “said information.” Further, Claim 25, from which Claim 27 depends, also recites various types of information (green highlights above) presenting more potential antecedents (*e.g.*, “online purchase information,” “merchant information,” etc.). The specification provides no clarity; therefore, a POSITA would not be reasonably certain which antecedent “information,” or which combination of antecedent “information,” was encompassed by “said information.” Ex. 2 ¶ 46.

For the reasons explained above, a POSITA cannot be reasonably certain regarding the scope of “said information” appearing in Claims 6, 9, and 27 thus rendering the term indefinite. Ex. 2 ¶¶ 43–46.

3. “[device-transmitted] limited-use payment information”

Claims	Google’s Construction	CardWare’s Construction
’538 Patent: Claim 7	Indefinite	Not indefinite. Plain and ordinary meaning.

As discussed above, CardWare obtained a Certificate of Correction (“COC”) dated May 10, 2022. Ex. 2 ¶ 47. That COC addressed an issue in Claim 1 of the ’538 Patent. *Id.* Specifically, CardWare changed “said limited-use payment information” in Claim 1 to “said limited-use payment informations.” *See* ’538 Patent at 19:61. The COC did not, however, make any changes to the recitation of “limited-use payment information” in Claim 7. Thus, Claim 7 of the ’538 Patent is indefinite because the scope of “limited-use payment information” is unclear even after the COC changed Claim 1.

The pertinent portion of Claim 7 recites:

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**

'538 Patent at 21:34–39. Claim 7 depends from Claim 3, which depends from Claim 1. Neither Claim 1 nor Claim 3 recite “device-transmitted limited-use payment information,” making the antecedent for the yellow-highlighted term above unclear. Ex. 2 ¶ 47. While Claim 1 does recite transmitting “*complete*” device payment information (*id.* at 20:17–20), the yellow-highlighted language in Claim 7 above cannot refer to that term because Claim 7 separately recites “complete device payment information” (green highlight). Ex. 2 ¶ 47. Moreover, as noted above, CardWare did not amend Claim 7’s recitation of “limited-use payment information” in its COC, implying that the device-transmitted “limited-use payment information” term in Claim 7 refers to some *other* type of limited-use payment information, and not the term that was subject of the COC. *Id.* But a POSITA would not be reasonably certain what that term references based on the lack of guidance in the intrinsic evidence. *Id.* Accordingly, this term is indefinite in Claim 7. *Id.*

4. “said secrets”

Claims	Google’s Construction	CardWare’s Construction
'538 Patent: Claim 27	Indefinite	Not indefinite. Plain and ordinary meaning.

Claim 27 of the '538 patent is also indefinite because a POSITA would not be reasonably certain about the scope of “said secrets.” Ex. 2 ¶¶ 48–49. Claim 27 depends from Claim 25. Claim 27, in pertinent part, recites:

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,

...

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 . . .

'538 Patent at 25:41–26:5. Claim 27 recites “**said secrets**” (yellow highlight) (emphasis added). But no “secrets” are previously recited in the claim. *See generally id.* Further, Claim 25, from which Claim 27 depends, similarly fails to recite a “secret” or “secrets.” Therefore, a POSITA would not be reasonably certain about the scope of the term. Ex. 2 ¶ 48.

The specification of the '538 Patent recites that a “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). But this disclosure in the specification fails to provide guidance regarding Claim 27's recitation of cryptographic computation of a dynamically generated one-time-use cryptogram number. Ex. 2 ¶ 49. Thus, a POSITA would not be reasonably certain whether, and to what extent, the secrets recited in the specification are used in Claim 27's cryptogram number creation process because the intrinsic record provides no guidance. *Id.*

For these reasons, this term is not reasonably certain to a POSITA and is therefore indefinite. Ex. 2 ¶¶ 48–49.

V. CONCLUSION

For the foregoing reasons, Google respectfully requests that the court adopt its proposed constructions and find the above-identified terms indefinite.

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Respectfully Submitted,

By: /s/ Matthias A. Kamber

Matthias A. Kamber
matthiaskamber@paulhastings.com
PAUL HASTINGS LLP
101 California Street, 48th Floor
San Francisco, CA 94111
Telephone: (415) 856-7000
Facsimile: (415) 856-7100

Robert W. Unikel (*pro hac vice*)
robertunikel@paulhastings.com
PAUL HASTINGS LLP
71 S. Wacker Drive, Suite 4500
Chicago, IL 60606
Telephone: (312) 499-6000
Facsimile: (312) 499-6100

Elizabeth L. Brann (*pro hac vice*)
elizabethbrann@paulhastings.com
PAUL HASTINGS LLP
4655 Executive Drive, Suite 350
San Diego, CA 92121
Telephone: (858) 458-3000
Facsimile: (858) 458-3005

Robert R. Laurenzi (*pro hac vice*)
robertlaurenzi@paulhastings.com
PAUL HASTINGS LLP
200 Park Avenue
New York, NY 10166
Telephone: (212) 318-6000
Facsimile: (212) 319-4090

James V. Razick (*pro hac vice*)
jamesrazick@paulhastings.com
Jason Mikus (*pro hac vice*)
jasonmikus@paulhastings.com
Puja V. Patel (*pro hac vice*)
pujapatel@paulhastings.com
PAUL HASTINGS LLP
2050 M Street NW
Washington, D.C. 20036
Telephone: (202) 551-1700
Facsimile: (202) 551-1705

Katharine Lee Carmona
TX State Bar No. 00787399
kcarmona@jw.com
JACKSON WALKER LLP
100 Congress Avenue, Suite 1100
Austin, Texas 78701
Telephone: (512) 236-2000
Facsimile: (512) 236-2002

Nathaniel St. Clair, II
Texas State Bar No. 24071564
nstclair@jw.com
JACKSON WALKER LLP
2323 Ross Avenue, Suite 600
Dallas, Texas 75201
Telephone: (214) 953-6000
Facsimile: (214) 953-5822

Erica Benites Giese
Texas State Bar No. 24036212
egiese@jw.com
JACKSON WALKER LLP
1900 Broadway, Suite 1200
San Antonio, Texas 78215
Telephone: (210) 978-7700
Facsimile: (210) 978-7790

Attorneys for Defendant
GOOGLE LLC

CERTIFICATE OF SERVICE

I hereby certify that on the 22nd day of May, 2025, a true and correct copy of the foregoing document was filed electronically with the Clerk of Court using the CM/ECF system. As of this date, all counsel of record have consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system.

/s/ Matthias A. Kamber
Matthias A. Kamber