

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASTERCARD INCORPORATED AND MASTERCARD
INTERNATIONAL INCORPORATED.,

Petitioner,

v.

OV LOOP, INC.,

Patent Owner.

Case IPR2023-01289

Patent 10,032,171

**PATENT OWNER'S
PRELIMINARY RESPONSE
UNDER 37 C.F.R. §42.107**

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2002	Declaration of Diane S. Rice in support of Motion for <i>Pro Hac Vice</i> Admission
2003	Declaration of Darrell Atkinson in support of Motion for <i>Pro Hac Vice</i> Admission
2004	Wikipedia Article – Host Card Emulation
2005	NFCW Article, “SimplyTapp proposes secure elements in the cloud”, dated Sept. 19, 2012
2006	Android KitKat (https://developer.android.com/about/versions/kitkat)
2007	NFCW Article, “Google gets around the carriers with Host Card Emulation for NFC payments”, dated Oct. 31, 2013
2008	Visa Inc. Press Release - Visa to Enable Secure, Cloud-Based Mobile Payments

Patent Owner OV Loop, Inc. (“OV Loop” or “Patent Owner”) respectfully submits this Preliminary Response to Mastercard Incorporated’s and Mastercard International Incorporated’s (“Mastercard” or “Petitioner”) above-captioned Petition for *inter partes* review of United States Patent No. 10,032,171 (“the ’171 patent”). Mastercard’s petition does not demonstrate a reasonable likelihood of success and should not be instituted. As explained below, the Petition is deficient in several important respects. It ignores claim limitations that appear throughout the challenged claims, makes obviousness arguments with little or no supporting evidence, and relies on alleged prior art without having shown that it is entitled to the priority date it claims.

I. INTRODUCTION

The ’171 patent was invented by Douglas Yeager who is a pioneer in the secure payments space who has been widely recognized for his contributions to the field and credited as the inventor of a technique called Host Card Emulation (HCE). EX2004. HCE has been described as a technique that “enables near field communication (NFC) information transfer between a terminal configured to exchange NFC radio information with an NFC card and a mobile device application configured

to act or pretend to emulate the functional responses of an NFC card. HCE requires that the NFC protocol be routed to the main operating system of the mobile device instead of being routed to a local hardware-based secure element (SE) chip configured to respond only as a card, with no other functionality.” EX2004. Mr. Yeager was the founder of a company called SimplyTapp, aimed at commercializing HCE and NFC cloud based payments. EX2005. Mr. Yeager’s HCE technique, has been widely praised in the payment technology industry and was officially adopted into the Android KitKat operating system in 2013. EX2006; EX2007. Even competitors in the payment space, such as Visa, were quick to praise and adopted HCE. “The Android HCE feature provides us with a platform to evolve the Visa PayWave standard, support the development of secure, cloud-based mobile applications, while at the same time offer greater choice to our clients.” EX2008, 1. “Visa's move to enable NFC payments with Android devices is welcome news and will guide the way for the payments industry.” *Id.*, 2.

Mr. Yeager’s company SimplyTapp was later acquired by Patent Owner OV Loop. Using the technology described in the ’171 patent, Patent Owner has been developing software to implement a full digital

wallet solution along with hardware supporting various forms of contactless payments. The '171 patent has been cited in patent applications assigned to companies such as Paypal, Ebay Inc., Intuit Inc., Capital One Services, LLC, Square Inc., and Groupon Inc.. *See, e.g.*, U.S. Patent No. 10,380,577; Intl. Pub. No. WO2009/017754; U.S. Patent No. 10,275,752; and U.S. Patent No. 10,546,444.

The '171 patent teaches and claims a foundational technique for enabling contactless payments using a mobile device. As the specification explains, some payment technologies rely on a microchip called a Secure Element ("SE") embedded into a payment card, cellular phone, or other mobile device. EX1001, 1:34-38. To use a payment card equipped with a Secure Element, an interrogator or reader must interact electrically with the SE. *Id.*, 1:50-52. With conventional secure element payment systems, the user is required to have physical possession of a "card" (e.g., a physical card or a mobile device with a secure element microchip) that matches the authorization capabilities of a merchant's system where a purchase is made. *Id.*, 1:57-60. In this conventional approach, prior to a card being issued, the SE is typically injected with personalization or "credential" data that is generated from a hardware security module

(HSM). EX1002, 804. The HSM typically injects a permanent cryptographic key into the SE that is used throughout the life of the SE. *Id.* During a typical interrogation, a POS terminal sends a command communication to the SE requesting a cryptogram, which the SE generates using the permanent cryptographic key. However, this technique is limited because many mobile devices do not have an SE microchip, and even if they do, the SE may be limited in the number of card specifications or accounts that it can support. *Id.*

Petitioner has the burden of proof here. 35 U.S.C. §316(e); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (“the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable”) (*citing* 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). Mastercard’s Petition must contain evidence to show “that there is a reasonable likelihood that the petition would prevail.” 35 U.S.C. § 314(a). It does not. And the Board must not institute to fill gaps in a Petition or to identify evidence where Mastercard failed to do so. The

Board routinely and properly dismisses defective Petitions like Mastercard's at the outset, as it should do here.

II. OVERVIEW

A. The '171 Patent

The '171 patent describes a technique to enable contactless payments using a mobile device without requiring an SE but still utilizing existing POS terminal hardware. Instead of relying on a pre-programmed Secure Element that is directly interrogated by the POS terminal, the '171 patent discloses a mobile device that includes an application running in an operating system and a technique to allow the mobile application to be interrogated by an electronic reader (*e.g.*, a POS terminal) for digital credential data associated with the payment account. EX1001, 17:46-63. Using a different communications channel, the mobile device can interact with a remote authorization server to facilitate access to digital credential data from a remote hosted SE. *Id.* Instead of relying on a track data with an account identifier and associated cryptographic key injected onto an SE, the mobile application is able to access the track data with an account identifier and associated cryptographic key from the remote SE. *Id.* The mobile device is thus able

to complete a secure transaction without having to utilize (or ever access) an SE on the mobile device. *See, e.g., id.*, cl. 1.

B. Claim Construction

For purposes of *inter partes* review, disputed claim terms are construed to give them “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *See* 83 Fed. Reg. 51341 (Oct. 11, 2018) (adopting the standard of *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005)). The proper construction is considered in the context of, and must be consistent with, the specification—and the claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *See, e.g., Phillips*, 415 F.3d at 1313.

Petitioner offers two alternative constructions for “at least one response application data protocol unit containing the response cryptogram and an account identifier for the account” (hereinafter, the “R-ADPU Term”) but asserts that it is not necessary for the Board to construe the term. Pet., 24-25. Patent Owner does contend that any terms require construction to find that all grounds in the Petition fail.

C. Person of Ordinary Skill in the Art

The field of technology for the '171 patent is secure payment systems. A person of ordinary skill in the art of the subject matter of the '171 patent would have the equivalent of an undergraduate degree in electrical and computer engineering (or a related field) and approximately two years of work experience in the field of secure payment system. Additional education in the field could be substituted for industry experience, and vice versa.

D. Obviousness

Whether a patent claiming a combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). To reach this conclusion, however, requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art

elements in the normal course of research and development to yield the claimed invention. *Id.* “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016); *see In re NuVasive, Inc.*, 842 F.3d at 1383 (stating that “conclusory statements” amount to an “insufficient articulation[] of motivation to combine”; “instead, the finding must be supported by a ‘reasoned explanation’”).

III. PETITIONER HAS NOT SHOWN THAT COLLINGE ANTICIPATES OR RENDERS OBVIOUS ANY CHALLENGED CLAIM

A. Petitioner has failed to demonstrate that Collinge is prior art

Grounds 1 and 2 fail as a threshold matter because Petitioner has not demonstrated that the Collinge patent (Exhibit 1011), which are the basis for challenge in Grounds 1 and 2, is prior art. Specifically, Petitioner fails to establish that Collinge is entitled to the benefit of priority to the filing date of either of its provisional applications, which would be required to qualify as prior art to the ’171 patent.

On its face, Collinge does not qualify as prior art to the '171 patent because the Collinge non-provisional application was filed on March 14, 2013, which is after the August 30, 2012 filing date of the '171 patent. EX1011, 1; EX1001, 1. Thus, Petitioner relies on two provisional applications in Collinge's priority chain Petitioner to allege that Collinge is prior art under pre-AIA 102(e). Pet., 28. Petitioner asserts that "[b]oth the '095 Provisional and the '248 Provisional enable and provide written description support for all elements of at least one independent claim of Collinge," and then provides a chart purporting to map claim 20 of Collinge to the '095 Provisional (Exhibit 1009). *Id.*

However, to demonstrate that a reference patent application is entitled to the benefit of its provisional application's filing date for prior art purposes, a petitioner must meet two requirements. **First**, a petitioner must show that at least one claim of the reference patent application is sufficiently supported by the provisional application. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1385, 1382 (Fed. Cir. 2015) ("A provisional application's effectiveness as prior art depends on its written description support for the claims of the issued patent of which it was a provisional."); *Amgen Inc. v. Sanofi*, 872 F.3d

1367, 1380 (Fed. Cir. 2017) (applying *Dynamic Drinkware* to patent applications).

Second, a petitioner must show that the provisional application provides sufficient support for the subject matter relied upon for prior art purposes in the reference patent application. *See In re Giacomini*, 612 F.3d 1380, 1383 (Fed. Cir. 2010) (relied upon subject matter must be “carried forward from an earlier U.S. provisional application or U.S. non-provisional application”); *Cox Communications, Inc. v. AT&T Intellectual Property I, L.P.*, IPR2015-01227, Paper 70 at 29 (P.T.A.B. Nov. 16, 2015) (“[T]he material relied upon as teaching the subject matter of the challenged claims must be carried through from that earlier filed application to the reference patent being used against the claim.”) (citing *Giacomini*, 612 F.3d at 1383); *Ex parte Mann*, 2016 WL 7487271, at *5 (P.T.A.B. Dec. 21, 2016) (explaining that “[t]his subject matter test is **in addition to the comparison of claims required by Dynamic Drinkware**,” and that “absurd results would be reached if a subject matter test were not required”) (emphasis added); *Comcast Cable Commc’ns, LLC v. Promptu Sys. Corp.*, IPR2018-00345, Paper 10 at 25-26 (P.T.A.B. July 2, 2018) (finding Petitioner’s analysis insufficient to

show “how the [provisional application] provides support for the subject matter relied upon [in the asserted reference]”). Accordingly, Petitioner must show that the subject matter it relies upon in Collinge is also found in Collinge’s provisional applications. Here, Petitioner fails to do so.

Petitioner makes no attempt to show that either of the Collinge provisional applications (EX1009 or EX1010) provide sufficient support for the subject matter relied upon for prior art purposes in Collinge or that this subject matter was “carried forward” from the earlier provisional applications. *Giacomini*, 612 F.3d at 1383. Petitioner simply ignores the second requirement—i.e., whether the Collinge provisional applications provide sufficient support for the subject matter in Collinge that Petitioner relies on as prior art.

Indeed, although the Petition includes a section titled “Collinge is 102(e) Prior Art” (Pet., 28), that section alleges only that “the ’095 Provisional and the ’248 Provisional enable and provide written description support for all elements of at least one independent claim of Collinge.” Pet., 28. Following that assertion, which appears to be an attempt to satisfy the first requirement, Petitioner includes a chart mapping claim 20 of Collinge to various “support” from the ’095

Provisional. Following that chart, Petitioner simply restates its assertion that Collinge is prior art because its provisional applications support at least one claim. Pet., 33. But claim 20 of Collinge is not the disclosure in Collinge that Petitioner relies upon as prior art. As to those disclosures, Petitioner says nothing about how they are supported or carried over from either provisional application. Pet., 33. Thus, Petitioner has not shown that any of the cited portions of Collinge are entitled to either of the provisional filing dates.

Petitioner cannot remedy its failure to demonstrate that Collinge is entitled to an earlier priority date by pointing to the instances in Grounds 1 and 2 where it has cited to the '095 Provisional (EX1009) as additional evidence of alleged unpatentability. *See, e.g.*, Pet. 40 (citing EX1009, cl.19 as support for its statement that “[m]oreover, Collinge discloses that the credentials may be provisioned via a ‘pull request from the mobile device.’”). These sporadic citations are no substitute for an explanation as to how the '095 Provisional supports the subject matter relied upon in Collinge. *See Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1286 (Fed. Cir. 2017) (“It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition

identify with particularity the evidence that supports the grounds for the challenge to each claim.”). In many instances, in fact, Petitioner relies on portions of Collinge without any citation to either Collinge provisional.

For example, with regard to limitation [1.A-3], which relates in part to a request made “over a wireless network that is separate from the first communications channel” Petitioner relies on Figure 7 of Collinge along with statements in Collinge that the connection with the cloud is done via SSL session (EX1011 at [0081]) and that communication with POS terminal is via NFC (EX1011 at [0085]). Pet., 39 (citing EX1011, Fig. 7, [0081], [0085]). But Petitioner cites to no disclosure in either Collinge provisional from which these disclosures were carried forward. Pet., 39-40. In addressing obviousness of the same limitation, Petitioner cites again to Collinge in support of its contention that data is “retrieved from a remote system” but makes no mention of a supporting disclosure in any Collinge provisional. Pet., 40 (citing EX1011, [0082], [0083]).

A further example relates to Petitioner’s argument with respect to claim limitation 1.E-1, which recites in part “a request for digital credential data.” Petitioner argues that the “cryptogram and other data” allegedly present in standardized EMV transactions is digital credential

data because “the POS device will later ‘generate an authorization request for the payment transaction, which will include the UN_{READER}, the generated CVC3 value, [and] the application transaction counter’” Pet., 46 (citing EX1011, [0086]). Petitioner plainly relies on (and quotes) Collinge’s disclosure in paragraph 86 but cites to no evidence from either Collinge provisional to support this subject matter. *Id.*

As these examples illustrate, Petitioner has not shown, or even attempted to show, that the subject matter it relies upon in Collinge was carried over from Collinge’s provisional applications. For this reason, Petitioner has not shown that it is reasonably likely to prevail on the issue of whether Collinge is prior art to the challenged claims of the ’171 patent. Thus, Grounds 1 and 2, which rely on Collinge, cannot be the basis for a decision to institute.

B. Collinge does not disclose or render obvious any challenged claim

1. [1.A-2]: “the application interrogable by an electronic reader, over a first communications channel, for digital credential data corresponding to an account having a corresponding digital credential and”

The entirety of Petitioner’s argument that this limitation is anticipated by Collinge consists of just a single sentence, which essentially just recites the words of the claim: “Collinge’s mobile application is interrogable by an electronic reader, such as a POS terminal, over a first communications channel (e.g., NFC) for digital credential data.” Pet., 37. Other than the phrases “such as a POS terminal” and “e.g., NFC,” Petitioner hasn’t done anything here other than conclude that Collinge’s mobile application satisfies a portion of this limitation. Petitioner’s recitation of the claim language is not evidence, and Petitioner never explains its basis to conclude that Collinge’s mobile application is interrogable by a POS terminal over NFC. It also fails to even mention the second half of the limitation—i.e., “for digital credential

data corresponding to an account having a corresponding digital credential.” Pet., 37-38.

Instead, Petitioner just cites to eleven separate paragraphs and one figure in Collinge and the '095 Provisional with no explanation whatsoever as to how these paragraphs support its conclusion. *Id.*, 37 (citing EX1011, [0044], [0070], [0086], [0120], Fig. 14; EX1009, [0014], [0030], [0033], [0040], [0060]-[0062]). As the Board is aware, “[i]t is not the Board's job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner's arguments. Arguments in a petition must be made with particularity, not opacity” *Microsoft Corp. v. FG SRC, LLC*, 860 F. App'x 708, 713 (Fed. Cir. 2021). Petitioner presents its conclusion—that Collinge discloses a portion of the limitation—but doesn’t provide any argument as to why that conclusion is correct. This by itself is fatal to Petitioner’s assertion.

A review of the eleven paragraphs cited as evidence is of little help. For example, Petitioner does not provide any indication as to which, if any, portions of Collinge or the '095 Provisional disclose or suggest “digital credential data” or “an account having a corresponding digital

credential.” Patent Owner and the Board are left to sift through the cited portions of two Exhibits without any guidance. But none of the cited paragraphs mention “interrogation” or “digital credential data,” and none of them describe any kind of account, let alone an account having a digital credential. *See* EX1011, [0044], [0070], [0086], [0120], Fig. 14; EX1009, [0014], [0030], [0033], [0040], [0060]-[0062].

Petitioner’s obviousness analysis is equally flawed. Petitioner focuses on whether a POSITA would have implemented Collinge’s “NFC disclosure” using interrogation. Pet., 37. But this argument repairs none of the deficiencies in its anticipation analysis (e.g., failing to identify “digital credential data” or “an account having a corresponding digital credential”).

Petitioner also alleges that “a POSA would understand that standard NFC payment transactions entails interrogation of the payment token (payment card, mobile payment application) by a POS reader” Pet., 37. But Petitioner cites neither its expert’s declaration nor Collinge to support this assertion. Instead, Petitioner cites two paragraphs in a different reference that make no mention of NFC at all, let alone offer a description of “standard NFC payment transactions.” *Id.*

(citing EX1015, [0062], [0070]). Petitioner offers no explanation for how this reference to Exhibit 1015 is relevant, or even appropriate here, given that Exhibit 1015 is not listed as a statutory basis for Petitioner's ground for unpatentability.

The purpose of the final paragraph of Petitioner's argument regarding limitation [1.A-2] is unclear. Petitioner alleges that "a POSA reading Collinge will understand that it discloses contactless payment techniques compatible with EMV infrastructure." *Id.*, 38. Petitioner then proceeds to describe how "an EMV transaction" works, citing various sections in Exhibits 1023, 1026, and 1027, none of which Petitioner has proven, nor even alleged, are prior art to the '171 patent. Pet., 17 (citing EX1023 § 5.8.2; §§ 2.3.3-2.3.4, 3.4.2, 3.8.1-3.8.3, 5.2, 5.3; EX1021 Part III, § 7.2, EX1027 §§ 2.4.1, 5.2.2.3, 5.4.3.2).

This analysis is flawed. First, none of this adds any clarity to how Petitioner alleges it would be obvious that Collinge's mobile application is "interrogable by an electronic reader, over a first communications channel, for digital credential data corresponding to an account having a corresponding digital credential." Second, Petitioner offers no explanation as to how the EMV transaction it identifies, which Petitioner

admits is between a POS terminal and payment card, is relevant to Collinge's contactless payment techniques, which are between a POS terminal and a mobile device. EX1011, [0044]; *see* Pet., 37 (second paragraph). Petitioner makes no attempt to reconcile these differences. Furthermore, alleging merely that a POSITA reading Collinge will understand that its techniques are "compatible with EMV infrastructure" (Pet., 38) is insufficient when neither Petitioner nor its expert explains what it means to be "compatible with EMV infrastructure." Pet., 38; EX1006, 86.

Finally, Petitioner has not shown that it is appropriate to rely on Exhibits 1023, 1026, and 1027, as it does here for their detailed description of how an EMV transaction works. Pet., 17 (citing EX1023 § 5.8.2; §§ 2.3.3-2.3.4, 3.4.2, 3.8.1–3.8.3, 5.2, 5.3; EX1021 Part III, § 7.2, EX1027 §§ 2.4.1, 5.2.2.3, 5.4.3.2). These exhibits have not been proven as prior art, nor have they been listed as a basis for Petitioner's basis for challenging the claims. Pet., 13. "The Board has recognized that non-prior art evidence of what was known 'cannot be applied, independently, as teachings separately combinable' with other prior art, but 'can be relied on for their proper supporting roles, e.g., indicating the level of

ordinary skill in the art, what certain terms would mean to one with ordinary skill in the art, and how one with ordinary skill in the art would have under-stood a prior art disclosure.” *Yeda Rsch. v. Mylan Pharms. Inc.*, 906 F.3d 1031, 1041 (Fed. Cir. 2018) (citing *Dominion Dealer Sols., LLC v. AutoAlert, Inc.*, IPR2014-00684, 2014 WL 5035359, at *5 (P.T.A.B. Oct. 6, 2014)).

Petitioner’s reliance on Exhibits 1021, 1023, and 1027 in the Petition goes far beyond indicating how one of skill in the art would have understood a prior art disclosure. Petitioner relies on these references for the details of how an interaction between a POS and a card work according to the EMV protocol. Pet. 17. This is not an explanation of how a POSITA would understand some portion of Collinge, which never mentions any “EMV protocol.” Rather, it is used to fill in a missing limitation that isn’t discussed in Collinge.

For these reasons, Petitioner’s allegation that limitation [1.A-2] is disclosed in Collinge or obvious based on Collinge in view of the knowledge of a POSITA is not reasonably likely to succeed. Because Petitioner has failed to show in Grounds 1-2 that this limitation of independent claim 1 is unpatentable, its arguments in Grounds 1-2 as to

each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner's failure to show reasonable likelihood that limitation [1.A-2] is unpatentable also applies to independent claim 17. Limitation [17.D] recites, in part, "the application, when executed, interrogable over the communications channel for digital credential data to authorize transactions against an account having a corresponding digital credential." And Petitioner's argument for this portion of limitation [17.D] relies entirely on "the reasons discussed in [1.A]." Pet., 64. Therefore, Petitioner's challenge to claim 17 fails for the same reasons as discussed here for limitation [1.A-2]. In addition, because Petitioner has failed to show that this limitation of independent claim 17 is unpatentable based on Collinge in view of the knowledge of a POSITA, its arguments as to each of the challenged claims that depend from claim 17 (i.e., claims 18 through 33) also fail.

In sum, if the Board determines, as it should, that Petitioner has failed to demonstrate a reasonable likelihood of success as to limitation [1.A-2], the Board should conclude that the entirety of Grounds 1 and 2 are not reasonably likely to succeed.

2. [1.E] “participating by the application in an interrogation between a point-of-sale (POS) terminal and the mobile device comprising”

Limitation [1.E] introduces the concept of an “interrogation” between a POS terminal and the mobile device. Although the limitation is not lengthy, as explained below, Petitioner nonetheless fails to show that each element is disclosed or obvious.

As an initial matter, Petitioner makes only an anticipation argument as to this limitation because the entirety of Petitioner’s discussion of this limitation is: “As explained in [1.A-2], Collinge discloses the application participating in an interrogation between a POS terminal and the mobile device.” Pet., 44. The only reasonable interpretation of the statement “Collinge discloses” is that Petitioner is asserting that this limitation is present in Collinge (*i.e.*, that Collinge anticipates this limitation). Petitioner makes no claim that limitation [1.E] is obvious. *Id.*

Since Petitioner, relies entirely on section [1.A-2] for its argument as to why limitation [1.E] is disclosed in Collinge, we must look to that section. However, section [1.A-2] is written to address a different limitation, and it doesn’t explain Petitioner’s argument as to how

Collinge discloses an application that is “interrogable by an electronic reader.” Instead of any explanation, Petitioner offers only its conclusion that “Collinge’s mobile application is interrogable by an electronic reader, such as the POS terminal, over a first communications channel (*e.g.*, NFC) for digital credential data.” Pet., 37 (second paragraph). As discussed above in Section III.B.1, this assertion essentially just repeats the claim language with no explanation as to how Collinge discloses that its mobile application is “interrogable” by a POS terminal over NFC. *Id.* Petitioner provides no citation to any expert testimony. *Id.*

Petitioner includes a citation to eleven separate paragraphs and one figure in Collinge and the ’095 Provisional but provides no explanation as to their significance. Pet., 37 (citing EX1011, [0044], [0070], [0086], [0120], Fig. 14; EX1009, [0014], [0030], [0033], [0040], [0060]-[0062]). Of relevance to limitation [1.E], Petitioner fails to explain where, if anywhere, among this string of citations Collinge or the ’095 Provisional one finds support for “interrogation between a point-of-sale (POS) terminal and the mobile device.”

Petitioner has fallen far short of the requirement to present its arguments as to unpatentability with particularity. “It is not the Board's

job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner's arguments.” *Microsoft Corp. v. FG SRC, LLC*, 860 F. App'x 708, 713 (Fed. Cir. 2021).

Furthermore, even if one does endeavor to determine what Petitioner meant by citing these portions of Collinge and the '095 Provisional, none of them mentions “interrogation.”

As noted above, Petitioner’s assertion only that “Collinge discloses” this limitation does not include any assertion that limitation [1.E] would have been obvious based on Collinge, and institution on a ground not raised in the Petition is impermissible. Nevertheless, out of an abundance of caution, Patent Owner addresses the obviousness arguments Petitioner made as to limitation [1.A-2] as they would relate to the limitations of [1.E].

In Section [1.A-2], Petitioner says “interrogation” is an obvious way to implement Collinge’s NFC disclosure because Collinge uses standard NFC payment transaction processes and “a POSA would understand that standard NFC payment transactions entails interrogation of the payment token (payment card, mobile payment application) by a POS

reader.” Pet., 41 (citing EX1015, [0062], [0070]). Petitioner cites to no expert testimony to support its contention of what “a POSA would understand” or what “standard NFC payment transactions” are. *Id.* Instead, Petitioner cites to paragraphs 62 and 70 of Exhibit 1015 without any explanation as to how these paragraphs support its argument as to a POSITA’s understanding of NFC transactions. Furthermore, neither cited paragraph even mentions NFC, let alone the particularities of “standard NFC payment transactions.” EX1015, [0062], [0070]. Accordingly, Petitioner, even if Petitioner had argued that participation by Collinge’s mobile application “in an interrogation between a point-of-sale (POS) terminal and the mobile device” would have been obvious, which it hasn’t, this argument would have failed. For these reasons, Petitioner’s discussion in Section [1.A-2] does not demonstrate that limitation [1.E] is obvious based on Collinge in view of the knowledge of a POSITA. Because Petitioner has failed to show that this limitation of independent claim 1 is disclosed by Collinge or obvious based on Collinge in view of the knowledge of a POSITA, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner's failure to show reasonable likelihood that limitation [1.E] is unpatentable also applies to independent claim 17. Limitation [17.H] recites "during an interrogation." And Petitioner's argument for [17.H] relies entirely on its arguments for limitation [1.E]. Pet., 64. Therefore, Petitioner's challenge to claim 17 fails for the same reasons as discussed here for limitation [1.E]. In addition, because Petitioner has failed to show that this limitation of independent claim 17 is unpatentable based on Collinge, its arguments as to each of the challenged claims that depend from claim 17 (i.e., claims 18 through 33) also fail.

IV. PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD OF PREVAILING ON GROUNDS 3 OR 4

A. Petitioner has not shown reasonable likelihood that Fiske anticipates or renders obvious any challenged claim

Just as it did in Grounds 1 and 2 with respect to Collinge, Petitioner's attempt to demonstrate unpatentability on the basis of Fiske falls far short. As explained below, Petitioner either ignores limitations entirely or offers nothing more than a conclusory assertion that a limitation would have been obvious.

1. [1.E-1] “[the application] receiving at least one POS command communication sent by the POS terminal over the first communications channel, wherein the at least one POS command communication comprises a request for digital credential data to authorize a transaction against the account, the request for digital credential data including a cryptogram request;”

Limitation [1.E-1] relates to the specific communication between “the application” and “the POS terminal over the first communications channel.” EX1001, cl.1. One recited aspect of this communication is “receiving at least one POS command communication sent by the POS terminal over the first communications channel.” Petitioner alleges that the claimed “first communication channel” is NFC. Pet., 66. And Petitioner alleges that the claimed “POS command communication sent by the POS terminal” is satisfied when “a POS terminal requests payment credential data from the payment device/card.” Pet., 71. But these two assertions do not meet all elements of the claim because they do not address whether Fiske discloses “receiving at least one POS command communication sent by the POS terminal over the first

communications channel.” *Id.*, 71-72. In other words, Petitioner has provided no explanation as to how Fiske discloses that the request for payment credential data (the purported “command communication”) is sent using NFC communications (the purported “first communication channel”) by the POS terminal to the user device. *Id.* Because it provides no explanation, Petitioner cannot prevail as to this limitation.

The same conclusion is reached even if we consider all the portions of Fiske that Petitioner cited in support of the *other* elements in limitation [1.E]—i.e., Exhibit 1102 at 9:42-45, 13:20-24, 13:32-35, 8:20-22, 6:54-57, 7:30-41, 8:64-67. None of these portions of Fiske say anything about a POS command communication sent by the POS terminal to the device/card using NFC, or about the specific channel over which any such communication is sent. *See* EX1012, 9:42-45 (disclosing that payment application is configured to perform an authorization process “responsive to receiving a request for an application cryptogram”); 13:20-24 (disclosing that user device is provisioned with an ICC Session Key generated by issuing bank); 13:32-35 (disclosing that ICC Session Key is valid only for a single transaction); 8:20-22 (disclosing that ICC must produce an Application Cryptogram in order to respond to a GENERATE

AC command issued by the terminal); 6:54-57 (disclosing several mechanisms available for generation of application cryptogram); 7:30-41 (describing that terminal can request a specific type of Application Cryptogram to be generated by sending a “GENERATE AC” command to the ICC); 8:64-67 (disclosing that ICC Session Key can be used to generate an application cryptogram and that how a Session Key is used for this is specific to payment system being implemented). There is simply no support in any of what Petitioner cited for the notion that NFC is used for “at least one command communication sent by the POS terminal” and received by the “application.”

Petitioner has plainly failed to meet its burden to make its arguments and present its evidence “with particularity,” as the law requires. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (“the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable”) (*citing* 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). For these reasons, Petitioner has failed to show that Fiske discloses limitation [1-E-1]. Because Petitioner has

failed to show that this limitation of independent claim 1 is disclosed in Fiske, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner's attempt to argue obviousness also falls far short. Petitioner's obviousness argument includes just one sentence, referring back to Grounds 1-2, collectively spanning almost 30 pages, without any explanation other than an allegation that the basis for obviousness here would have been "for similar reasons." Pet., 72. Ground 1 alleges anticipation by Collinge, and Petitioner presents no reason why any of its arguments there are relevant to obviousness in view of Fiske. Pet., 13, 72. Ground 2 alleges that this limitation would have been obvious based on Collinge in view of the knowledge of a POSITA. *Id.*, 13. But Collinge and Fiske are different references, and Petitioner offers no explanation as to why any of the arguments it makes with respect to obviousness based on Collinge apply to obviousness based on Fiske. Pet., 71-72. Nor does Petitioner explain what its alleged "similar reasons" are.

Furthermore, nothing in Petitioner's Ground 2 obviousness arguments for this limitation relate in any way to communication over NFC, which is what Petitioner says here is the "first communication

channel.” Pet., 46, 66. In Grounds 1-2 Petitioner alleged that Collinge expressly disclosed that communication between the POS terminal and mobile device “is over a first communication channel (e.g., NFC).” Pet., 45 (citing EX1011, [0002]-[0003], [0044]). Its obviousness argument there didn’t address NFC. *Id.* Accordingly, none of the portions of the EMV specifications cited in Section [1.E-1] of Grounds 1-2 mention any channel over which any communications are sent, let alone NFC. Pet., 46 (citing Ex[1026] §§ 3.4.2, 3.4.3, 5.2, 5.3; Ex[1027] § 2.4.1). For these reasons, the obviousness argument Petitioner made in Grounds 1-2 as to Collinge does nothing to cure the defect in Petitioner’s argument here, which relates to Fiske.

Accordingly, Petitioner has not demonstrated any reasonable likelihood of showing that limitation [1.E-1] would have been obvious based on Fiske in view of the knowledge of a POSITA. Because Petitioner has failed to show that this limitation of independent claim 1 is obvious, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner’s failure to demonstrate that limitation [1.E-1] is present or obvious in Grounds 3 and 4 also carry over into Petitioner’s argument

as to limitation [17.H-1]. That limitation recites, in part, “receive at least one point-of-sale (POS) command communication sent by a POS terminal to the mobile device over the communications channel.” But Petitioner makes no new argument in Section [17.H-1] and simply cites back to Section [1.E-1]. Pet., 83. For this reason, Petitioner has also failed to show a reasonable likelihood of unpatentability of independent claim 17, and each of the challenged claims that depend from claim 17 (i.e., claims 18-33).

In sum, if the Board determines, as it should, that Petitioner has failed to demonstrate a reasonable likelihood of success as to limitation [1.E-1], then Grounds 3 and 4 cannot be a basis for institution.

2. [1.A-2]: “the application interrogable by an electronic reader, over a first communications channel, for digital credential data corresponding to an account having a corresponding digital credential and”

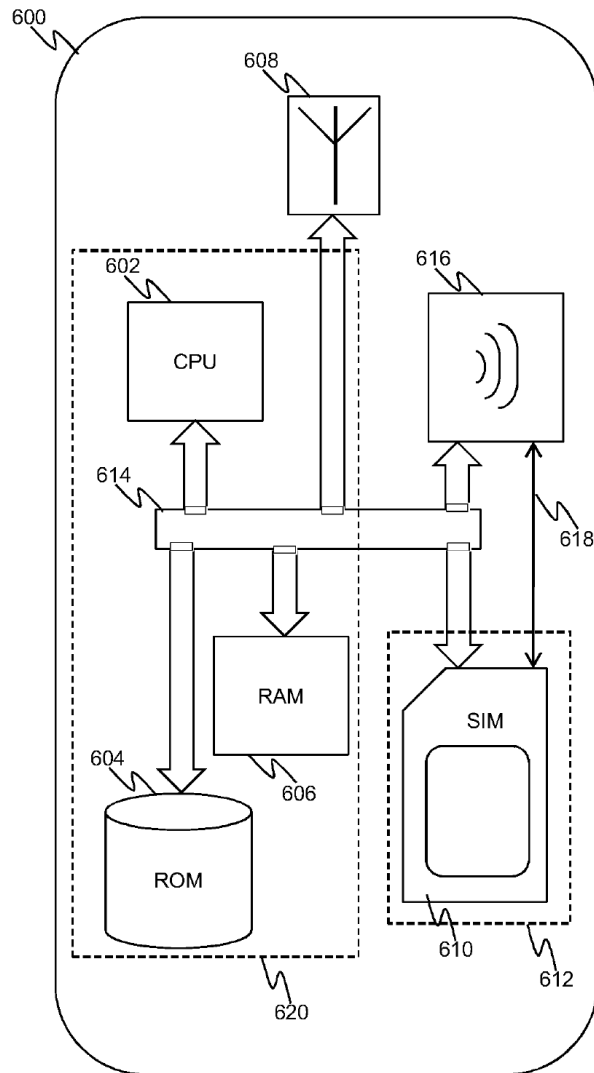
The '171 patent discloses that “[a]s used herein the term ‘card data’ or ‘credential data’ may refer to the data used to create a proper APDU response to credential specific APDU commands such ‘read record’ **7**, and data used in ‘compute cryptographic checksum’ **8**.” EX1001, 31:14-17.

Petitioner’s argument fails to identify where Fiske discloses “digital credential data corresponding to an account having a corresponding digital credential,” as recited in limitation [1.A-2].

First, Petitioner argues “as explained in Grounds 1-2, the application on the ‘Card’ will return ‘digital credential data’ required for authorization of transaction.” Pet., 66. But, instead of pointing out where in Grounds 1-2, which span nearly 30 pages, this explanation can be found, Petitioner cites only to the ’171 patent itself, which does nothing to demonstrate that Fiske teaches or suggests this limitation. *Id.* And, as discussed in Section III.B.1, Petitioner has not even shown in its discussion of limitation [1.A-2] that “digital credential data” is disclosed by Collinge. *See supra*, Section III.B.1. Thus, Petitioner’s reference to the arguments it made previously in Grounds 1-2 are totally unhelpful here.

Petitioner then alleges that “Fiske’s mobile application is interrogable . . . for digital credential data” based on a description of the “READ RECORD” command in Fiske. Pet., 66. Petitioner argues that “Fiske describes the POS terminal issuing a ‘READ RECORD’ command to the payment device to ‘read all of the transaction data parameters’ from the device, including the primary account number (PAN).” Pet., 66-

67 (citing EX1012, 3:26-46, 2:63-67, 5:28-30). But this statement mischaracterizes the disclosure in Fiske. The cited portions of Fiske describe communication between a terminal and an ICC. EX1012, 3:26-28 (“All of the data necessary for offline data verification is obtained by the terminal in response to issuing READ RECORD commands *to the ICC. . .*”) (emphasis added). An ICC is an “integrated circuit card,” which Fiske describes as “a portable card containing embedded integrated circuits” that “are typically issued by financial institutions . . . to their customers.” EX1012, 1:26-35. Fiske makes clear that an ICC is different from a “user device.” For example, Fiske discloses that “FIG. 6 illustrates exemplary components of a user device according to embodiments [sic] the present invention wherein the user device comprises a mobile telephony device.” EX1012, 11:58-60.



EX1012, Fig. 6. Thus, Fiske makes clear the distinction between an ICC and a user device.

Petitioner's allegation that Fiske's disclosure of a "READ RECORD" command issued by the POS terminal to a "payment device" is relevant obscures the fact that Fiske is actually describing communications between a POS terminal and an ICC, which is a physical

payment card, not a user device (e.g., a mobile telephony device). Yet, Petitioner hasn't presented any evidence or argument that Fiske's user device interacts with a POS terminal in the same way an ICC does, or that in Fiske's payment system, a POS terminal would issue commands to the user device identical to the commands normally issued to the ICC. Pet., 66-67. Without such evidence, Petitioner's arguments that Fiske's user device contains an "application interrogable by an electronic reader" cannot succeed.

Petitioner's obviousness argument is also flawed. First, Petitioner alleges that "a POSA would have understood that 'interrogation' is an obvious way to implement Fiske's NFC teaching of transmission of information between the mobile device and POS device." Pet., 67. But in support of this statement, Petitioner cites not to Fiske—on which Ground 4 is based—but to two paragraphs in a wholly separate reference that make no mention of NFC. *Id.*, (citing EX1015, [0062], [0070]). Petitioner offers no explanation for how this reference to Exhibit 1015 is relevant, or even appropriate, here. Petitioner then contends that Fiske's payment techniques are "applicable" to authorizing an EMV payment transaction and refers back to the anticipation argument it made in Ground 1. Pet.,

67. Ground 1 argues for anticipation by Collinge, and Petitioner says nothing about how alleged anticipation by Collinge supports an argument for obviousness based on Fiske in view of the knowledge of a POSITA. Pet., 67. Petitioner also provides no explanation as to how a POSITA would understand “authorizing an EMV payment transaction” or how this relates in any way to the EMV Specifications cited in Ground 1.¹ Once again, Petitioner’s arguments here fall far short of the

¹ Petitioner’s allegation that Fiske “explicitly incorporates by reference, EMV transaction protocols based on EMV Specifications, including EMV ICC Specifications versions 4.2 and EMV Contactless Specifications” (Pet., 34) is demonstrably false. 37 CFR 1.57(c)1 states that “an incorporation by reference must be set forth in the specification and must: (1) Express a clear intent to incorporate by reference by using the root words ‘incorporat(e)’ and ‘reference’ (e.g., ‘incorporate by reference’); and (2) Clearly identify the referenced patent, application, or publication.” 37 CFR 1.57(c)1. The Fiske patent makes no such statements of incorporation in regard to any EMV specification.

requirement to present its arguments “with particularity.” Accordingly, its arguments cannot show a reasonable likelihood of success.

For these reasons, Petitioner has failed to demonstrate that claim 1 is anticipated by Fiske or obvious based on Fiske in view of the knowledge of a POSITA. Accordingly, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner’s failure to show reasonable likelihood that limitation [1.A-2] is unpatentable also applies to independent claim 17. Limitation [17.D] recites, in part, “the application, when executed, interrogable over the communications channel for digital credential data to authorize transactions against an account having a corresponding digital credential.” And Petitioner’s argument for this portion of limitation [17.D] relies entirely on its arguments in section [1.A]. Pet., 82. Therefore, Petitioner’s challenge to claim 17 fails for the same reasons as

Ex[1012], 1:58-64, 6:54-61, 9:6-11. None of these say anything about incorporating the specifications themselves by reference.

discussed here for limitation [1.A-2]. Accordingly, Petitioner's arguments in Grounds 3-4 as to each of the challenged claims that depend from claim 17 (i.e., claims 18 through 33) also fail.

In sum, if the Board determines, as it should, that Petitioner has failed to demonstrate a reasonable likelihood of success as to limitation [1.A-2], the Board should conclude that the entirety of Grounds 3 and 4 are not reasonably likely to succeed.

3. [1.A-3]: “[the application] configured to request, from a remote computer system hosting the corresponding digital credential, over a wireless network that is separate from the first communications channel, data associated with the account and”

This limitation relates to aspects of the mobile device “application” introduced in limitation [1.A-1]. For example, the limitation recites that the application is “configured to request . . . data associated with the account” and that this request is “from a remote computer system hosting the corresponding digital credential.” The claim also recites that the request is “over a wireless network that is separate from the first

communication channel.” EX1001, cl.1. Petitioner’s argument as to this limitation is flawed in several ways.

(a) Petitioner fails to show that Fiske discloses a “remote computer system hosting the corresponding digital credential”

Limitation [1.A-3] recites a “remote computer system hosting the corresponding digital credential.” But Petitioner has failed to identify, or even suggest, disclosure in Fiske of this limitation. Pet., 67-68. Indeed, nowhere in Section [1.A-3] does Petitioner even mention a “remote computer system” or any “corresponding digital credential.” Pet., 67-68. For this reason, Petitioner’s argument in Ground 1 as to limitation [1.A-3] has no reasonable likelihood of success.

Petitioner’s failure to even allege disclosure of “a remote computer system hosting the corresponding digital credential” as recited in limitation [1.A-3] cannot be remedied by looking to limitation [1.A-2], where the term “corresponding digital credential” is first introduced in claim 1. Petitioner’s argument as to limitation [1.A-2] relates to the interaction between the application and an electronic reader and says nothing at all about a “remote computer system,” let alone such a system “hosting the corresponding digital credential.” Pet., 66-67. Accordingly,

even if Petitioner had expressly referred back to its discussion of limitation [1.A-3], that discussion also fails to demonstrate the present limitation.

Petitioner’s omission of any argument as to Fiske’s disclosure of “a remote computer system hosting the corresponding digital credential” also cannot be cured by an allegation that this limitation is obvious, because Petitioner has made no such argument. Petitioner argues only that “a POSA would find it obvious for the device to *request* the data from the issuer.” Pet., 68. This says nothing about “a remote computer system hosting the corresponding digital credential,” and institution based on an obviousness argument Petitioner never presented is not allowed. *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1335 (Fed. Cir. 2020).

(b) Petitioner fails to show Fiske’s application is “configured to request . . . data associated with the account”

First, Petitioner has failed to show that the mobile application in Fiske is “configured to request . . . data associated with the account.” As to anticipation by Fiske, Petitioner largely ignores this limitation. Indeed, the only statement Petitioner makes about any “request” is: “The

payment keys or session keys are provisioned ***or requested to*** the user device from the issuing bank.” Pet., 68 (citing EX1012, 13:20-31, 13:63-67) (emphasis added). As an initial matter, Petitioner’s assertion makes no grammatical sense, and Petitioner never explains what it means for payment or session keys to be “requested to the user device.” Furthermore, the portions of Fiske cited to support this statement say nothing about the mobile application being configured to request anything from a remote computer system. In the first cited portion, Fiske says:

“The user device is provisioned with an ICC Session Key, generated by an issuing bank on the basis of the ICC Master Key. The ICC Session Key can be generated by the issuing bank in accordance with, for example, the method described above in relation to FIG. 4. The user device is therefore devolved of both the responsibility and the ability to generate its own ICC Session Keys. Hence a successful attack against the stored encrypted data on the user device will result in an attacker obtaining an ICC Session Key that is valid for only a single transaction, not a large number of transactions as would be the case if the ICC Master Key were obtained.”

EX1012, 13:20-31 (emphasis added). Here, Fiske discloses that the user device is “provisioned with an ICC Session Key” but says nothing about the mobile application making a *request* for any session key. Yet, Petitioner offers no explanation for how the bank “provision[ing]” an ICC Session Key to the user device demonstrates that the application is configured to request the ICC Session Key. Pet., 68. Instead, it appears that Petitioner simply added the word “requested” to its assertion to fit the claim limitation.

The second portion of Fiske that Petitioner relies upon (EX1012, 13:63-67) also says nothing about any request. *Id.* There, Fiske says “[i]n the case of the current example, the issuing bank and the user device may communicate via the mobile telephony network, for example using High-Speed Packet Access (HSPA) and an appropriate secure messaging protocol, in order to retrieve the ICC Session Keys.” *Id.* Once again, Petitioner offers no explanation as to how this disclosure in Fiske demonstrates any kind of “request” from the user device. Pet., 68.

Petitioner’s attempt to demonstrate that it would have been obvious “for the device to request the data from the issuer” is even more nebulous. *Id.* That argument consists of a single sentence, in which Petitioner

states “...for reasons similar to those explained in [1.A-3] (*supra* § X.A.1.d) a POSITA would find it obvious for the device to **request** the data from the issuer.”² Pet., 68. Instead of articulating with particularity, as it must, the basis for its assertion that the limitation is obvious, Petitioner refers back to some unspecified “reasons” presented earlier that relate to a different piece of prior art and then fails to explain how its current argument is “similar.” “It is not the Board's job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner's arguments.” *Microsoft Corp. v. FG SRC, LLC*, 860 F. App'x 708, 713 (Fed. Cir. 2021). Thus, Petitioner’s obviousness assertion cannot succeed.

For these reasons, Petitioner has failed to demonstrate that claim 1 is unpatentable in view of Fiske. Because Petitioner has failed to show that this limitation of independent claim 1 is unpatentable based on

² Petitioner cites to its expert’s declaration in support, but Dr. Fiske essentially just repeats the same ambiguous “for reasons similar” statement from the Petition with no further explanation. EX1006, ¶ 171.

Fiske, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner's failure to show reasonable likelihood that limitation [1.A-3] is unpatentable also applies to independent claim 17. Limitation [17.D] recites, in part, an "application . . . interrogable over the communications channel for digital credential data." Petitioner's discussion of this limitation in Section [17.D] depends entirely on its arguments in Section [1.A], and fails for the same reasons as described here. Pet., 82. In addition, because Petitioner has failed to show that this limitation of independent claim 17 is unpatentable based on Fiske, its arguments as to each of the challenged claims that depend from claim 17 (i.e., claims 18 through 33) also fail.

4. [1.C] “receiving by the application, from the remote computer system, over the wireless network, the first set of data associated with the account, the first set of data associated with the account usable by the application to formulate an application protocol data unit response, the first set of data comprising a first non-permanent cryptographic key associated with the account”

Petitioner argues that Fiske discloses that user devices receive from remote servers data associated with the account, such as “an ICC Session Key, which are associated with an account at the issuing bank.” Pet. 70. Petitioner also says that the ICC Session Key is “used to generate an Application Cryptogram, as required during a single EMV transaction” and that “[t]he ICC Session Key is a cryptographic key associated with the account, and is valid only for a single transaction (non-permanent).” *Id.* But none of these assertions make any mention of how this ICC Session Key is “usable by the application to formulate an application data unit response,” as limitation [1.C] recites. Indeed, the entire discussion of limitation [1.C] includes not a single mention of an “application protocol data unit.” *Id.* None of the cited portions of Fiske are helpful

either, because Fiske never uses the phrase “application data protocol unit.” See *generally* EX1012. And, Petitioner’s discussion of limitation [1.C] cites to no expert testimony in support of its assertions. Petitioner has fallen far short of its “. . . burden from the onset to show with particularity with the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)).

The first time in Grounds 3 and 4 that Petitioner even mentions “application protocol data unit responses” comes in its discussion of limitation [1.E]. But mentioning a claim term in a discussion of different limitation is not enough to meet its burden as to this limitation. First, “[i]t is not the Board's job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner's arguments.” *Microsoft Corp. v. FG SRC, LLC*, 860 F. App'x 708, 713 (Fed. Cir. 2021); see *MModal LLC v. Nuance Commc'ns, Inc.*, 846 F. App'x 900, 907 (Fed. Cir. 2021) (affirming Board decision that rejected an argument as to a limitation where

“[Petitioner] made no such reference in the section of the Petition devoted to the required-information limitation” and holding that the “Board was [not] obligated on its own to seize on this reference and construct an assertion about the required-information limitation not made where [Petitioner] was discussing that limitation.”).

Second, the relevant discussion of limitation [1.E] says only that “it is well known in the art that ... during the interrogation, commands issued by the terminal and responses from the ‘Card’ are communicated in command- and response-application protocol data units.” Pet., 71. Petitioner provides no argument or evidence linking this purported knowledge in the art of application protocol data units to Fiske’s ICC Session Key or to Fiske’s mobile application to show that “a first non-permanent cryptographic key is usable by the application to formulate an application protocol data unit response.” *Id.* Accordingly, Petitioner has failed to show that claim 1 is disclosed by or obvious based on Fiske in view of the knowledge of a POSITA, as it alleges in Ground 3 and 4. Because Petitioner has failed to show that this limitation of independent claim 1 is disclosed by Fiske or obvious based on Fiske in view of the

knowledge of a POSITA, its arguments as to each of the challenged claims that depend from claim 1 (i.e., claims 2 through 16) also fail.

Petitioner's failure to show reasonable likelihood that limitation [1.C] is unpatentable also applies to independent claim 17. Limitation [17.F] recites, in part, "the first set of data associated with the account usable by the application to formulate an application protocol data unit response." And Petitioner's entire discussion of this element is "[s]ee § [1.C]." Pet., 83. In addition, because Petitioner has failed to show that this limitation of independent claim 17 is disclosed in Fiske or obvious based on Fiske in view of the knowledge of a POSITA, its arguments as to each of the challenged claims that depend from claim 17 (i.e., claims 18 through 33) also fail.

V. CONCLUSION

As detailed above, Petitioner has not met its burden to present its arguments and evidence of unpatentability with particularity. 35 U.S.C. §316(e); *Harmonic*, 815 F.3d at 1363 ("the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable"). Petitioner's failures relate to every challenged claim of

the '171 patent, which leaves no possibility of success on the merits.
Institution should be denied.

Respectfully submitted,

Dated: December 29, 2023

/s/ Seth Lindner

Seth Lindner, Reg. No. 68,119
BC Law Group, P.C.
200 Madison Avenue, 24th Floor
New York, NY 10016
(212) 951-0100

CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

The undersigned hereby certifies that the word count in this Patent Owner Preliminary Response is 9,196 words, as counted by the word-processing program Microsoft Word that was used to generate this Patent Owner Preliminary Response, where such word count excludes the table of contents, table of authorities, mandatory notices, certificate of service, appendix of exhibits, claim listing, and this certificate of word count. This Patent Owner Preliminary Response is in compliance with the 14,000-word limit set forth in 37 C.F.R. § 42.24(b)(1).

Date: December 29, 2023

/Seth Lindner/

BC Law Group, P.C.
200 Madison Avenue, 24th Floor
New York, NY 10016
(212) 951-0100

Seth Lindner
Reg. No. 68,119
Attorney for Patent Owner

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

The undersigned hereby certifies that the above document was served on December 29, 2023, by filing this document through the Patent Trial and Appeal Case Tracking System as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

Eliot D. Williams (Reg. No. 50,822)
Baker Botts L.L.P.
700 K Street, N.W.
Washington, D.C. 20001
Telephone: (202) 639-1334
eliot.williams@bakerbotts.com

Jennifer Tempesta (Reg. No. 59,021)
Baker Botts L.L.P.
30 Rockefeller Plaza
New York, NY 10112
Telephone: (212) 408-2571
jennifer.tempesta@bakerbotts.com

Date: December 29, 2023

/Seth Lindner/

BC Law Group, P.C.
200 Madison Avenue, 24th Floor
New York, NY 10016
(212) 951-0100

Seth Lindner
Reg. No. 68,119
Attorney for Patent Owner