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

HEADWATER RESEARCH LLC, *Plaintiff*, v. GOOGLE LLC, *Defendant*.	Case No. 7:25-cv-00369-DC-DTG **JURY TRIAL DEMANDED**

DEFENDANT GOOGLE LLC'S REPLY TO
PLAINTIFF'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

GOOGLE EXHIBIT 1015
Google v. Headwater
IPR2026-00442

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I. INTRODUCTION

Headwater's responsive brief confirms Google's constructions are correct.

On "SIM," Headwater concedes the term is "technological terminology" understood "in the ordinary technological sense." Dkt. 84 at 3–4. That concession dooms Headwater's position. If "SIM" is technical terminology with a technical meaning, the jury needs to know what that technical meaning is. Headwater offers no answer. It proposes no construction and identifies no competing POSITA understanding. To the contrary, the unrebutted evidence establishes that "a POSITA would have understood SIM to refer to industry standardized technology as it existed at the time of the claimed inventions," as Google's construction recognizes. Dkt. 77-10 ¶ 46.

On the preamble of claim 10, Headwater concedes that the "secure execution environment" recited in the preamble is limiting because it provides the antecedent basis for other claim limitations. Dkt. 84 at 10. But Headwater asks the Court to arbitrarily excise the phrase "configured to be inaccessible to a user application software" even though there is no punctuation, no grammatical break, and no textual basis for splitting a single clause into two. The Federal Circuit has squarely rejected this kind of preamble-splicing. *Bio-Rad Lab'ys, Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1371 (Fed. Cir. 2020).

The Court should adopt Google's constructions.

II. ARGUMENT

A. "subscriber [information/identity] module (SIM)" ('510 patent, claims 22, 24; '935 patent, claim 10; '055 patent, claim 11; '155 patent, claims 3, 12)

Google's Construction	Headwater's Construction
Subscriber Identity Module as described in the ETSI/3GPP standards in existence at the time of the claimed invention	no construction is necessary, the term should be given its plain and ordinary meaning

Headwater concedes that "SIM" is "technological terminology" understood "in the ordinary technological sense" by a POSITA. Dkt. 84 at 3–4. Yet Headwater proposes no

construction for the term, leaving the jury with no guidance whatsoever about what such "technological terminology" refers to in a "technical sense." Notably, Headwater does not dispute the unrebutted evidence that, at the time of invention, POSITAs understood that "SIM" was defined by the ETSI/3GPP standards. Dkt. 77-10 ¶ 46 ("[A] POSITA would have understood SIM to refer to industry standardized technology as it existed at the time of the claimed inventions."); Ex. 1 (Jakobsson Dep.) 35:7–11 ("SIM would have no other meaning at that time."). Nor does Headwater identify any other understanding of "SIM" that a POSITA would have had at the time of invention.

Headwater's principal argument is that the Court should decline to construe "SIM" because the patents do not cite a specific standards document. Dkt. 84 at 2. Headwater is wrong. The absence of an express citation to a standards document does not preclude construction in accordance with a well-known industry standard. In *Fundamental Innovation Sys. Int'l LLC v. Samsung Elecs. Co., Ltd.*, the claims and specification similarly referred to "USB" without reference to "any particular standard or standards document" as Headwater would require. No. 17-cv-145, 2018 WL 647734, at *7–12 (E.D. Tex. Jan. 31, 2018). The court nevertheless construed "USB" as a "Universal Serial Bus ***as described in Universal Serial Bus Specification Revision 2.0*** and related versions of this standard at the time of the claimed invention" because it was undisputed that "USB" refers to a "well-known group of industry standards." *Id.* at *8, 12 (emphasis added).

The facts here are analogous to *Fundamental Innovation.* As there, it is undisputed that the SIM standards were a group of standards well-known in the art at the time of invention. Dkt. 77-10 ¶¶ 47–55 (describing well-documented development of SIM via ETSI and 3GPP standards from 1988-2009); *id.* ¶ 56 ("[T]he term 'SIM' referred to modules that were compatible

with the industry-standard specifications defined by ETSI and 3GPP at the relevant times."). And just as the reference to an "industry standard port" in *Fundamental Innovation* provided "at least some indication" that the patentee was referring to the standards in existence at the time of the claimed invention, the patents here provide "at least some indication" that "SIM" refers to the standards in existence at the time of invention too. For example, the '510 patent refers to "moving the SIM" on "***GSM*** devices"[1] and emphasizes the advantages of using a SIM for device standardization and interoperability. *See, e.g.*, Dkt. 77-3 ('510 patent) at 6:27–33; *see id.* at 5:45–48 (a "***SIM . . . may be moved*** from one device to another device"); *see also* Dkt. 77-2 ('935 patent) at 36:35–45 ("a SIM and/or USIM" allow users "to have the same service settings . . . regardless of the device the user is using on the network"); Dkt. 77-4 ('930 patent) at 58:24–31 ("user preferences . . . do not need to be relearned or redownloaded as the user swaps the SIM between different devices"); *id.* at 58:31–36 ("user swaps the SIM from device to device"). Headwater's argument that "SIM" should not be construed because the specifications do not cite a specific SIM standards document or version is contrary to law and should be rejected.

Headwater's cases are not to the contrary. In *Soverain Software LLC v. Amazon.com, Inc.*, the court construed "HTTP" but declined to limit it to "the version that existed at the time of the patent application" because "HTTP is a generic term" and, significantly, the "then-current version was a 'draft.'" No. 6:04-cv-14, 2005 WL 6225276, at *5 (E.D. Tex. Apr. 7, 2005). Here, the unrebutted evidence establishes that "SIM" is not a "generic term" and that the standards governing its implementation were not "drafts" at the time the Asserted Patents were filed. Dkt. 77-10 ¶¶ 51–52 (describing standardization of SIM in 2G and 3G wireless standards). In *Celltrace LLC v. AT&T Inc.*, the disputed term was "GSM-***compatible***." No. 6:09-cv-294, 2011

[1] GSM and 3GPP are both ETSI-related standards.

WL 738927, at *16 (E.D. Tex. Feb. 23, 2011) (emphasis added). The dispute was not about whether the claims require compliance with the GSM standards—they did—and the court accordingly construed the term as "capable of functioning with GSM hardware or software." *Id.* at *15. Finally, in *Cellspin Soft, Inc. v. Fitbit, Inc.*, the Northern District of California expressly recognized that Texas courts had "require[d] limiting claim terms reciting a technical standard to the versions available at the time of the invention." No. 17-cv-5928, 2021 WL 1417419, at *9 (N.D. Cal. Apr. 14, 2021). None of those cases support Headwater's argument urging the Court to provide no guidance to the jury for undisputedly "technical terminology" just because the patents do not cite a specific standards version or document.

Headwater's remaining arguments fail as well. First, Headwater makes the unremarkable observation that "after-arising technologies can be 'captured within the literal scope of valid claims that are drafted broadly-enough.'" Dkt. 84 at 4–5. But that principle does not mean the Court should decline to construe "SIM." The question is not whether claims *can* capture after-arising technology, but whether the claims *here* were "drafted broadly enough" to do so. They were not. The patents repeatedly anchor "SIM" to contemporaneous technology: they describe "SIM" in the context of "***GSM*** devices," emphasize that a "SIM… may be ***moved*** from one device to another," and tout interoperability advantages that depend on standardization. '510 patent at 5:45–48, 6:27–33. A POSITA reading these disclosures would understand "SIM" as it existed under the ETSI/3GPP standards (which includes GSM) at the time. Dkt. 77-10 ¶ 46. Texas courts have acknowledged that while there is "no prohibition against claims being interpreted in a manner that encompasses 'after-arising technologies,'" claim terms that "relate to a particular group of standards" should nevertheless be construed as limited to the "standards that existed at the time of

the claimed invention." *Fundamental Innovation*, 2018 WL 647734, at *11 (citation omitted). The reasoning in *Fundamental Innovation* applies with equal force here.

Second, Headwater argues that because the specifications refer to "standardized interfaces such as USB" but do not expressly invoke a SIM standard, "SIM" must be untethered from any standard. Dkt. 84 at 3–4. Headwater is incorrect. The patents' reference to "standardized interfaces such as USB" does not mean "SIM" is not standards-based; it confirms the patentee was aware of and comfortable invoking industry standards. Indeed, "USB" and "SIM" are both well-known industry-standard terms; a POSITA reading either would understand the reference to the applicable standards. Jakobsson Dep. 35:7–11; Dkt. 77-10 ¶ 46. Nor does Headwater's invocation of *Phillips* help its position: Google does not use extrinsic evidence to contradict the intrinsic record, but to establish the POSITA's understanding of a technical term—a use *Phillips* expressly endorses. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) (extrinsic evidence is properly used to show "the way in which one of skill in the art might use the claim terms"). Headwater accuses the extrinsic evidence of being "inherently biased." Dkt. 84 at 2. That is incorrect. Standards documents and technical dictionaries are not "inherently biased" and Headwater itself cites Google's Exhibit 10 to show, for example, that the term "SIM" can be used to refer to both the "card and the application"—both of which are industry standards. Dkt. 84 at 8–9 (quoting Dkt. 77-11 at 35). In fact, the page Headwater relies on cites the exact standards that specify the "card and the application": "UICC = physical card and basic logical functionality (TS 31.101) and USIM = 3G application on a UICC (TS 31.102)." Dkt. 77-11 at 35.[2] Google submitted both of these specifications with its opening brief. *See* Dkt. 77-15; Dkt. 77-16.

[2] This citation refers to the PDF pagination indicated in the ECF filing header.

Headwater's attacks on the standards that POSITAs would be familiar with at the time of invention should be disregarded.

Headwater, by contrast, offers no extrinsic evidence of any competing POSITA understanding. Although Headwater suggests that "the asserted patents describe SIM more broadly," Headwater fails to establish that POSITAs would have any understanding of "SIM" beyond the standards. Indeed, the only citations from the specification Headwater points to support Google's position. For example, Headwater cites to the Abstract of the '155 patent, which merely states that "[i]n some embodiments [the secure execution environment] 'is located . . . in a subscriber identity module (SIM).'" Dkt. 84 at 3–4 (quoting '155 Patent, Abstract); *see* Dkt. 77-8 ('155 patent) at 4:12–16 (same). This usage of SIM is consistent with the '155 patent's repeated usage of SIM to describe something that is well-known without further explanation—*i.e.*, using its ordinary meaning to refer to industry standard technology. *See, e.g.*, '155 patent at 20:27–30 ("SIM [is] considered in the industry to be a 'carrier-owned' entity on the device"). Headwater's other cited passages, describing SIM as an independent security hardware module or an exemplary processing element are not attempts to change or broaden the POSITA's understanding; they too are fully consistent with the industry standard. *Cf.* Dkt. 84 at 4 (citing '155 patent at 38:16–20).

Finally, Headwater argues that Google's construction would limit the claims to "physical SIM cards" or import a "removability requirement." Dkt. 84 at 3–4. Google's construction ties "SIM" to the ETSI/3GPP standards in existence at the time of the claimed inventions. That is what *Fundamental Innovation*, *Chrimar*, *PC Connector*, and the other cases Google cited all require. *See* Dkt. 77 at 3–7. Headwater's alternative—leaving "SIM" untethered from any fixed meaning—ignores that the standards governing SIM changed over time. Worse, it would leave a POSITA unable to ascertain the scope of the invention with reasonable certainty because the scope

would vary depending on the standard applied. *Versata Software, Inc. v. Zoho Corp.*, 213 F. Supp. 3d 829, 838 (W.D. Tex. 2016) ("A claim term cannot be a moving target that changes over time.") (citing *Icon Health & Fitness, Inc. v. Polar Electro Oy*, 656 Fed. Appx. 1008, 1016 (Fed. Cir. Aug. 8, 2016)). And it ignores the bedrock principle that "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art . . . ***at the time of the invention***." *Phillips*, 415 F.3d at 1313 (emphasis added).

At bottom, there is no dispute that "SIM" is "technological terminology" to be understood "in the ordinary technological sense" by POSITAs. Dkt. 84 at 3–4. Google's proposed construction provides the jury guidance about that technical meaning, supported by unrebutted expert testimony.[3] Headwater, by contrast, asks the Court to provide no construction at all, leaving the jury to determine for itself what "SIM" referred to at the time of invention. Google's construction should be adopted.

B. Preamble of claim 10 of the '155 patent

Google's Construction	Headwater's Construction
Limits the claim	Limiting except for "configured to be inaccessible to a user application software"

The law here is settled. When the preamble provides antecedent basis for other claim elements, the preamble is limiting. *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003); *Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1023–24 (Fed. Cir. 2015). Headwater does not dispute this. And Headwater concedes that the "secure execution environment"

[3] Although Headwater asserts that Dr. Jakobsson was "not an ETSI/3GPP standards drafter or participant," Headwater does not submit any expert opinion or objective evidence contradicting his opinions. Dkt. 84 at 8. Nevertheless, Headwater does not dispute that Dr. Jakobsson was a POSITA, nor could they when the lead inventor of the Asserted Patents admitted he was not involved in developing standards, either. Dkt. 68-1 at 129:8–130:4 (Headwater inventor Greg Raleigh admitting he played no role in developing standards).

recited in the preamble limits the claim by providing antecedent basis. Dkt. 84 at 10. That should end the matter.

Headwater nevertheless asks the Court to arbitrarily split up the preamble such that only the "secure execution environment" is limiting, while the clause immediately following it—"configured to be inaccessible to a user application software"—is ***not*** limiting. *Id.* at 9–10. According to Headwater, the "inaccessible" clause is mere "additional descriptive" language and can be ignored. *Id.* at 10–11. That is contrary to law.

In *Bio-Rad*, the Federal Circuit rejected the argument that only terms relied on for antecedent basis can limit a claim. 967 F.3d at 1371. There, the Federal Circuit held that the entire phrase "*conducting* a reaction in plugs *in* a microfluidic system" limited the claim, even though the body referred only to a "reaction" and a "microfluidic system." *Id.* at 1370–71 (emphasis added). The court distinguished *TomTom*—relied upon by Headwater—by emphasizing that the *TomTom* preamble was "neatly packaged into two separate portions," one of which was an "intended use or purpose." *Id.* The claim here is not. *Marrin*, Headwater's other authority, only underscores the point: the non-limiting language there—"for permitting a user to write thereon without the use of a marking implement"—was a freestanding statement of intended use, not a structural characteristic of the very component that supplies antecedent basis. *Marrin v. Griffin*, 599 F.3d 1290, 1294–95 (Fed. Cir. 2010). By contrast, where the antecedent-basis language is intertwined with the disputed language, the entire preamble is limiting. *Bio-Rad*, 967 F.3d at 1371.

That is the case here. The claim 10 preamble recites no separable intended use or purpose, and the phrase "configured to be inaccessible" is intertwined with the indisputably limiting language that provides antecedent basis for the claim. There is not even any punctuation between

"a secure execution environment" and the "configured to be inaccessible to a user application software" clause that immediately follows it:

> A method for use by a communications device including a wide area network port configured to connect the communications device to a wide area network, and further including a secure memory, ***a secure execution environment configured to be inaccessible to a user application software***, and a secure data path processing agent, the method comprising:

Dkt. 77-8 at 62:4–9 (Claim 10) (emphasis added).

Proveris Scientific Corp. v. Innovasystems, Inc., which Headwater ignores entirely, reinforces the point. 739 F.3d 1367, 1373 (Fed. Cir. 2014). According to the Federal Circuit, preambles are limiting where, as here, they define structural components "in greater detail in the preamble" than in the body. *Id.* That is exactly the case here. The preamble provides detail about the "secure execution environment" recited in the body—namely, that it is "configured to be inaccessible to a user application software." That greater detail shows the patentee "use[d] *both* the preamble and the body to define the subject matter of the claimed invention." *Bell Commc'ns Rsch., Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995).

Headwater's remaining arguments fare no better. Headwater mischaracterizes Google's construction as importing an embodiment into the claims. Dkt. 84 at 11–12. Headwater argues that some embodiments of secure execution environments do not require inaccessibility from user application software, and points to Figure 3. *Id.* That argument misses the point. Google does not argue that the term "secure execution environment" standing alone should be construed to require inaccessibility. Rather, the patentee expressly recited the inaccessibility requirement in the claim 10 preamble itself, and that preamble language provides antecedent basis for limitations in the claim body, making it limiting. Whether other embodiments—or Figure 3—may describe a secure execution environment without that requirement is beside the point; claim 10's preamble

affirmatively recites a secure execution environment "configured to be inaccessible to a user application software."

Finally, Headwater's reliance on claim 1 is misplaced as well. That the patentee placed "configured to be inaccessible to a user application software" in the body of claim 1 but in the preamble of claim 10 does not render the claim 10 preamble non-limiting. Dkt. 84 at 11–13. A patentee may employ different drafting structures in different claims, and placing the inaccessibility requirement in the claim 10 preamble—where it introduces and defines "the secure execution environment" that the body later invokes—is itself a deliberate limiting choice. If anything, Headwater's concession that other preamble language ("configured to connect the communications device to a wide area network") is limiting confirms that Headwater is improperly deleting words from the preamble to broaden the claim scope.

III. CONCLUSION

For these reasons, the Court should adopt Google's proposed constructions.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on June 22, 2026, I caused the foregoing to be electronically filed with the Clerk of Court using the CM/ECF system, which will then send a notification of such filing (NEF) to all counsel of record.

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