IN THE 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 DEMANDED**

PLAINTIFF HEADWATER RESEARCH LLC'S
SUR-REPLY CLAIM CONSTRUCTION BRIEF

GOOGLE EXHIBIT 1016
Google v. Headwater
IPR2026-00442

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Google's reply on the "SIM" term does not cure its defects. There is no claim term, specification passage, or prosecution history statement tying "SIM" to the ETSI/3GPP standards Google asks the Court to import. Unable to fill that gap, Google pivots to rhetoric, arguing that Headwater's plain-and-ordinary meaning position leaves the jury without guidance and that Google's expert testimony is "unrebutted." Dkt. 86 at 1. But a construction is not warranted merely because a term has a technical meaning and a paid expert parrots attorney argument. A construction is warranted only when the intrinsic record requires departure from that meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005). Neither Google nor its expert could point to any. Dkt. 84-2, Ex. A, Jakobsson Dep. Tr. at 32:8–33:20. Expert testimony admitting to no intrinsic support is evidence *against* Google's proposed construction. *Id.*

Google fares no better on the preamble of claim 10. Google casts Headwater's position as improperly "splicing" the preamble in violation of *Bio-Rad*, arguing Headwater's agreement that "secure execution environment" is limiting requires treating the modifier "configured to be inaccessible" as limiting too, and that the absence of a comma forecloses any other reading. Dkt. 86 at 1 (citing *Bio-Rad Lab'ys Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1371 (Fed. Cir. 2020)). But *Bio-Rad* does not turn on punctuation, and it does not hold that every word attached to a limiting term is itself limiting. The test is whether the claim body relies on the disputed language. *Catalina Mktg. Intl'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). Here, no step of claim 10 invokes, tests, or depends on inaccessibility to user application software.

I. ARGUMENT

A. "Subscriber [Information/Identity] Module (SIM)" (Patent 9,609,510 claims 22 and 24; Patent 8,639,935 claim 10; Patent 11,096,055 claim 11; Patent 11,985,155 claims 3, 12)

1. Google's Reply Reveals That Its Improper Narrowing Is

Divorced from the Intrinsic Record

Google argues that because "SIM" is "technological terminology" understood in the "ordinary technological sense," Dkt. 86 at 1, the jury needs a construction, and namely, a standards-based construction. That argument is backwards. The question is not whether "SIM" has a technical meaning, but whether the patents tied "SIM" to any particular standard. Google's construction does not simply explain what "SIM" is, but rewrites "SIM" to mean "as described in the ETSI/3GPP standards in existence at the time of the claimed invention"—language that appears nowhere in the claims, specifications, or prosecution histories.

The intrinsic record does not say "SIM" means ETSI/3GPP-compliant technology, does not reference TS 31.101 or TS 31.102, and does not use words such as "compliant," "current standard," or "industry standard" with respect to SIM. The shared specification of the '935 and '055 patents expressly references "standardized interfaces such as USB, PCIe, firewire, Display Port, GPIO" in other contexts, demonstrating the patentee knew how to invoke industry standards when it intended to. *See, e.g.*, Dkt. 77-2, '935 patent, at 30:42–46. They did not do so for SIM. Google's reply therefore does not expose a gap in Headwater's position; it exposes the absence of intrinsic support for Google's proposed rewrite.

The intrinsic record uses "SIM" in multiple contexts that Google's construction cannot reconcile. As discussed in Headwater's opposition, the '155 patent treats SIM as a carrier-owned secure entity, as one of several possible locations for a secure execution environment, and as an exemplary processing element in device architectures. Dkt. 84 at 3-4 (citing Dkt. 77-8, '155 patent, at Abstract, 4:12–16, 38:16–20). The '935 patent describes SIM as one example among a broad, non-exhaustive set of credential mechanisms, without defining the term by reference to standards. *See, e.g.*, Dkt. 77-2, '935 patent at 120:51-58. Those passages show that the patents use "SIM" in a broader, functional architectural sense. Google's reply does not rebut them; rather, it

recharacterizes them as "consistent" with the ETSI/3GPP standards. Dkt. 86 at 6. But being "consistent with" an unspecified standard is not the same as being "defined by" one, and Google never identifies a claim, specification, or prosecution statement that defines "SIM" as it proposes.

Google cites for the first time in reply a single reference to GSM as justifying its wholesale importation of the ETSI/3GPP standards. Dkt. 86 at 3 (citing Dkt. 77-3, '510 patent at 5:45–48, 6:27–33). That citation highlights rather than cures Google's error. The passage describes SIM as one example of a portable credential in GSM devices but does not equate "SIM" with the ETSI/3GPP standards. And a different part of the patent uses "SIM" in wider, non-GSM architectures that Google's construction cannot reconcile. *See, e.g.*, Dkt. 77-3 ('510 patent) at 5:22–28 (using "subscriber information module (SIM)"—not "subscriber identity module" as in the ETSI standard—among a non-exhaustive list of credential types, none of which is given special definitional weight). That variation in terminology across the asserted patents confirms the patentee was not limiting its claims to ETSI/3GPP nomenclature as a defined term of art. Nor does Google's first-time citation to the '930 patent help: that patent does not contain the disputed "SIM" claim term, and its reference to SIM cards only confirm that when the patentee meant to recite a physical card, it said so. Dkt. 86 at 3 (citing Dkt. 77-4, '930 patent, at 58:24–31, 58:31–36).

The consequences of Google's attempted narrowing are clear. Google insists it is simply clarifying a technical term, but its construction excludes later SIM technologies and non-ETSI/3GPP implementations that a POSITA would still call "SIM." *See* Dkt. 84 at 5 (citing *Innogenetics N.V. v. Abbott Labs.*, 512 F.3d 1363, 1371-72 (Fed. Cir. 2008)). For "SIM" and "eSIM," the same subscriber-identity authentication function makes clear that the term's ordinary meaning is not frozen to 2G or 3G physical modules as of the priority dates. *Id.* at 4-5. That is a narrowing beyond the claim language, and such narrowing is unsupported by the intrinsic record.

Google's citation to *PC Connector* and *Versata* for the proposition that claims cannot be "moving targets" is unavailing. Dkt. 86 at 6-7. Google does not address Headwater's showing that *PC Connector* turned on expressly time-dependent terms such as "conventional," "traditionally connectable," and "standard input/output ports," that signaled a reference to existing technology on their face. Dkt. 84 at 7 (citing *PC Connector Sol'ns LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1363 (Fed. Cir. 2005)). "SIM" used here carries no such temporal signal. And *Versata* addressed definiteness, which has no bearing on whether a court may inject uncited technical specifications into claim language. *Versata Software, Inc. v. Zoho Corp.*, 213 F. Supp. 3d 829, 838 (W.D. Tex. 2016). In any case, it is Google that makes "SIM" a "moving target" by injecting uncited standards into the claims and then complaining about the imagined consequences.

Finally, Google's argument that the jury needs guidance is a red herring. Dkt. 86 at 7. The jury is perfectly capable of applying "SIM" in its plain and ordinary technological sense with appropriate expert testimony. Indeed, there is nothing about tying "SIM" to a standard at the claim construction stage that would clarify for the jury what "SIM" means. For example, Google's expert Dr. Jakobsson was unable to articulate which parts of the standards would or would not apply to the construction of "SIM." Ex. B, Jakobsson Dep. Tr. at 50:22-51:4. The jury does not need, and the Court should not provide, a construction importing standards documents the patents never cite.

2. The Case Law Remains Incompatible with Google's Position

Contrary to Google's argument on reply, *Fundamental Innovation* does not stand for the proposition that a court may construe a technical term by reference to a standard even when the patent does not cite a specific standards document. Dkt. 86 at 2 (citing *Fundamental Innovation Sys. Int'l LLC v. Samsung Elecs. Co.*, No. 2:17-cv-145-JRG-RSP, 2018 WL 647734, at *7-12 (E.D. Tex. Jan. 31, 2018)). Google ignores what drove the construction in *Fundamental Innovation* as explained in Headwater's responsive brief: the patent repeatedly and expressly tied "USB" to an

"industry standard interface," a "USB port," the "current USB specification," and compliance with "the USB specification." Dkt. 84 at 6-7 (citing *Fundamental Innovation*, 2018 WL 647734, at *10). In other words, the court did not leap from the general existence of USB standards to a standards-based construction. *Id.* It relied on intrinsic record language showing that the patentee itself used "USB" to denote a particular, standards-defined interface.

The intrinsic tether is entirely absent here. Google's reply does not identify a single specification passage using "industry standard," "current standard," or "compliant" in connection with SIM. Dkt. 86 at 2. At most, Google's cited passages about moving SIMs between devices, interoperability, GSM devices, and users retaining settings across devices describe known uses or benefits associated with SIM technology. *Id.* at 3. They do not provide the kind of intrinsic record that existed in *Fundamental Innovation*, where the specification itself repeatedly invoked the relevant standard and "current" compliance language. Dkt. 84 at 6-7. Under Google's interpretation, any use of a familiar technology with standardized implementation could be converted into a standards-compliance limitation, even absent any textual support in the patent. *Fundamental Innovation* does not endorse that result, and this Court should not either.

Google's reliance on *Chrimar* suffers from the same problem. *Chrimar* involved "BaseT," a coined standard-related term, and a specification that repeatedly invoked the relevant standard family. Dkt. 84 at 7-8 (citing *Chrimar Sys., Inc. v. Alcatel-Lucent USA, Inc.*, No. 6:15-cv-163-JDL, 2016 WL 1228767, at *8-9 (E.D. Tex. Mar. 28, 2016)). Google identifies no parallel intrinsic treatment here. The patents do not repeatedly invoke ETSI/3GPP, do not define SIM by reference to a standard (even though it does for other terms), and do not even use the kind of "industry standard" language that mattered in *Fundamental Innovation* and *Chrimar*.

Google's attempt to distinguish *Celltrace*, *Cellspin*, and *Soverain* fails because each reject

the very "standards" language that Google is seeking here. *Celltrace* is instructive not because "GSM-compatible" is identical to "SIM," but because the court there refused to lock the claim to then-existing GSM standards absent claim language doing so. Dkt. 84 at 5 (citing *Celltrace LLC v. AT&T Inc.*, No. 6:09-cv-294-LED-JDL, 2011 WL 738927, at *15 (E.D. Tex. Feb. 23, 2011)). Google's argument on reply that *Celltrace* is distinguishable because the dispute was on whether the claims required GSM compliance at all only underscores Headwater's point. Dkt. 86 at 3-4. If claims expressly reciting "GSM-compatible" were still not limited to the 1993 GSM standards, then claims here reciting only "SIM" with no reference to any standards body or "compliance" language are even less amenable to Google's proposed time-fixed standards construction.

Cellspin is also directly relevant, and Google's reply only attempts to distract from its holding. Dkt. 86 at 4. Google quotes the proposition that some Texas courts have limited claim terms reciting a technical standard to versions available at the time of invention, citing *Fundamental Innovation* and *Chrimar*. *Id.* But as discussed above, those two cases are highly distinguishable from the facts in *Cellspin* and here. The holding in *Cellspin*, which Google ignores, recognized that no blanket rule existed and declined to limit "Bluetooth" to versions available at the time of invention absent intrinsic support for it, reasoning that "limiting technologies to a specific time would defeat infringement through differences that have no bearing on [a POSITA's] understanding of a term." Dkt. 84 at 5 (citing *Cellspin Soft, Inc. v. Fitbit, Inc.*, No. 4:17-cv-05928, 2021 WL 1417419, at *9-10 (N.D. Cal. Apr. 14, 2021)).

Soverain likewise remains helpful despite Google's effort to distinguish it as involving a "generic term" and draft standards. *Soverain* treated "HTTP" as a non-standard-fixed term because the patentee was not claiming to have invented HTTP, but only claimed methods that used HTTP. Dkt. 84 at 6 (citing *Soverain Software LLC v. Amazon.com, Inc.*, No. 6:04-cv-14, 2005 WL

6225276, at *4-5 (E.D. Tex. Apr. 7, 2005)). The same is true here: Headwater does not claim to have invented SIM technology but claims novel methods and devices that employ SIM among other components. Treating "SIM" as a standards-compliance term in that context would improperly import a limitation the claims do not contain.

3. Google's Reply Confirms Its Use of Extrinsic Evidence to Supply a Limitation Missing from the Intrinsic Record

Google's reply underscores that its proposed construction stands or falls on extrinsic evidence. Google's proposed construction of "as described in the ETSI/3GPP standards in existence at the time of the claimed invention" is derived entirely from extrinsic standards documents and expert testimony, not from the patent's words.

Google's reliance on Dr. Jakobsson's testimony as "unrebutted" does not salvage its position. Dkt. 86 at 2. Dr. Jakobsson admitted at deposition that he did not identify any claim or specification language tying SIM to ETSI or 3GPP. Dkt. 84-2, Ex. A, Jakobsson Dep. Tr. at 32:8–33:20. His opinion that SIM "by definition, is standards compliant" rests on his own background assumptions and not on the patents' words. *Id.* Such testimony cannot be used to craft a standards-compliance limitation onto claims that never adopt one. The reason is simple: "[C]onclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court." *Phillips*, 415 F.3d at 1318. Dr. Jakobsson's testimony underscores *Phillips*' treatment of extrinsic evidence as "less significant" and potentially biased. *Id.* at 1317.

B. Preamble of Claim 10 of the '155 Patent

1. Google Does Not Dispute That None of the Body Steps Relies on the Inaccessibility Clause

Google's reply misidentifies what the preamble analysis requires. Google argues that because Headwater agrees the term "secure execution environment" is limiting, its modifier should also be limiting. But that is not the test. Under *Catalina*, the question is whether the preamble

language gives "life, meaning, and vitality" to the claim, such that the claim body relies on it and would not define a structurally complete invention without it. *Catalina Mtkg.*, 289 F.3d at 808. Applied here, the body of the claim refers back to "the secure execution environment" but not to "the secure execution environment configured to be inaccessible to a user application software." No method step invokes an inaccessibility characteristic, tests it, or requires it to be satisfied. The "inaccessibility" clause therefore does not give life, meaning, or vitality to any recited step. It functions as additional description of the secure execution environment, precisely like the "for permitting a user to write thereon without the use of a marking implement" language in *Marrin*, which the Federal Circuit held non-limiting even though other portions of the same preamble were limiting. *Marrin v. Griffin*, 599 F.3d 1290, 1294-95 (Fed. Cir. 2010).

Google tries to distinguish *Marrin* by labelling "configured to be inaccessible" as structural rather than an intended use. Dkt. 86 at 8. But the label is beside the point. The test is not what the phrase describes in the abstract; it is whether the claim body relies on it. And here it does not. *Catalina* and *Symantec*, which Google ignores in reply, confirm that nonessential descriptive preamble language is not limiting when the body defines a complete invention. Dkt. 84 at 1 (citing *Catalina*, 289 F.3d at 808; *Symantec Corp. v. Computer Assocs. Int'l, Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008)). The body of claim 10—executing the secure data path processing agent in the secure execution environment, generating a unique identifier, storing it in secure memory, generating a data record, associating the identifier, and sending it over a trusted link—is complete without the inaccessibility clause.

Google's reliance on *Bio-Rad* does not change the analysis. *Bio-Rad* rejected a categorical rule that only the exact words furnishing antecedent basis can be limiting. But it did not hold that every descriptive modifier attached to a limiting preamble automatically is a claim limitation. *Bio-*

Rad, 967 F.3d at 1371. *Bio-Rad* turned on the fact that the phrase "conducting a reaction in plugs in a microfluidic system" described the operative environment that the claim body depended on in context. Here, by contrast, the claim body refers back to "the secure execution environment," not to "the secure execution environment configured to be inaccessible to a user application software." Because no method step tests, invokes, or requires the inaccessibility characteristic to perform the recited acts, *Bio-Rad's* rationale does not apply.

Google invokes *Proveris* and *Bell* for the first time on reply for the proposition that preamble language can limit when it defines a structural component in "greater detail." Dkt. 86 at 9 (citing *Proveris Sci. Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1373 (Fed. Cir. 2014); *Bell Commc'ns Rsch., Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995)). Those cases do not help Google because they stand for the unremarkable proposition that the added detail must be what the claim body actually relies on. Here, the body relies on "the secure execution environment" but does not rely on "configured to be inaccessible to a user application software." What matters is the identity of the environment, not the extra descriptor Google seeks to import.

Google's "no punctuation" argument fares no better. Google contends Headwater is "arbitrarily" splicing the preamble and that *TomTom* is distinguishable because its preamble was "neatly packaged" into separate portions. Dkt. 86 at 8. But punctuation is not the test. The Federal Circuit in *TomTom* expressly held that a district court "erred in determining that it had to construe the entire preamble if it construed a portion of it." *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323 (Fed. Cir. 2015). The governing question remains whether the disputed phrase gives life, meaning, and vitality to the claim or is necessary to understand the recited steps.

2. The Patentee's Own Drafting Choice in Claim 1 Confirms the Inaccessibility Clause Is Not a Limitation in Claim 10

Google argues that the placement of "configured to be inaccessible…" in the body of claim

1, but in the preamble of claim 10, reflects nothing more than permissible "different drafting structures in different claims" that reflected "a deliberate limiting choice." Dkt. 86 at 10. That reframing does not hold up. A patentee may draft claims differently, but the resulting differences still carry consequences: when the patentee placed the identical phrase in the body of claim 1, it made inaccessibility an element the claim expressly requires. When the patentee placed the same phrase only in the preamble of claim 10, describing an attribute of the communications device rather than reciting a step or criterion the method must satisfy, it did not. Google's own "deliberate choice" framing cuts against it: if language placement is deliberate, then the patentee's decision not to repeat the inaccessibility requirement as a body limitation in claim 10 was equally deliberate.

Google responds that Headwater's embodiment argument "misses the point" because Google does not argue that "secure execution environment" standing alone requires inaccessibility, only that claim 10's preamble itself expressly recites the requirement, making other embodiments "beside the point." Dkt. 86 at 9. But the specification's description of varying secure execution environment architectures, including the communication paths between application programs and the secure execution environment shown in Figure 3, confirms "inaccessibility" is not the universal defining structural feature of every secure execution environment Google claims it to be. Dkt. 84 at 12. Rather, it is just one optional characteristic among several that the specification associates with "some embodiments." *Id.* That the preamble happens to recite the characteristic for claim 10 does not, by itself, convert descriptive language into a limitation when no body step relies on it. The inaccessibility clause of claim 10's preamble is non-limiting contextual description.

II. CONCLUSION

For the above reasons, the Court should adopt Headwater's constructions: "SIM" should receive its plain and ordinary meaning, and the phrase "configured to be inaccessible to a user application software" in the preamble of claim 10 should not limit the claim.

Dated: July 7, 2026

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CERTIFICATE OF SERVICE

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served on July 7, 2026, with a copy of this document via the Court's CM/ECF.

/s/ Kristopher Davis
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