

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

KONINKLIJKE KPN N.V.,

Plaintiff,

v.

XIAOMI CORPORATION, XIAOMI
COMMUNICATIONS CO., LTD., and
XIAOMI INC.,

Defendants.

C.A. No. 21-cv-41-VAC-CJB

JURY TRIAL DEMANDED

KONINKLIJKE KPN N.V.,

Plaintiff,

v.

COOLPAD TECHNOLOGIES INC.,

Defendant.

C.A. No. 21-cv-43-VAC-CJB

JURY TRIAL DEMANDED

JOINT CLAIM CONSTRUCTION BRIEF

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I. Introduction

A. Plaintiff's Opening Introduction

The patents at issue are United States Patent Nos. 6,212,662 (“’662 Patent”) and 8,886,772 (“’772 Patent”). Of the 18 terms set forth in the Joint Claim Construction Chart (C.A. No. 1:21-cv-41, ECF No. 46) and selected by Defendants, the parties were able to reach agreement on eight. This brief addresses the 10 terms that remain in dispute. The parties’ proposed constructions for these 10 terms are set forth in Appendix A.

B. Defendant Xiaomi’s Answering Introduction

Plaintiff Koninklijke KPN N.V. (hereafter “KPN”) filed this patent infringement suit against Defendants Xiaomi Corporation, Xiaomi Communications Co., Ltd., and Xiaomi Inc. (hereafter collectively, “Defendants” or “Xiaomi”). KPN asserts United States Patent Nos. 6,212,662 (the “’662 patent”) and 8,886,772 (the “’772 patent”) (collectively, the “Patents-in-Suit”).

The parties initially identified 18 claim terms from the two Patents-in-Suit that potentially required construction. The parties then agreed on the construction for eight of those 18 terms. After KPN served its opening brief, and after ongoing consideration between the Defendants, Defendants have additionally agreed to the constructions proposed by KPN for the four claim terms in dispute for the ’662 patent. Thus, the proper construction of six claim terms from the ’772 patent remain in dispute.

C. Plaintiff’s Reply Introduction

After KPN served its opening brief, Defendants agreed to KPN’s proposed constructions for each of the ’662 Patent terms that Defendants had identified for construction. *See supra* at 1. Accordingly, of the 18 terms set forth in the Joint Claim Construction Chart (C.A. No. 1:21-cv-

41, ECF No. 46), only six remain in dispute, all of which relate to the '772 Patent. KPN hereby sets forth its reply to Xiaomi's answering brief as to those six terms.

D. Defendant Xiaomi's Sur-Reply Introduction

As shown below, KPN fails to refute Xiaomi's showing that the six remaining terms in dispute are either indefinite or must be construed to be properly understood by the jury.

II. [Overview of the '662 Patent – OMITTED BECAUSE TERMS AGREED TO]

III. Overview of the '772 Patent

A. Plaintiff's Summary

The '772 Patent ("Method and System for Remote Device Management") was filed July 30, 2009, and issued November 11, 2014. KPN has attached a copy at Exhibit 1

The '772 Patent discloses a system and method that permit a variety of "manageable electronic devices" (MEDs) to be installed, updated, managed, or otherwise configured without the need for the device to be pre-configured by a manufacturer, service provider, or user. Ex. 1 at 1:64-2:33. This system and method make use of an auto-configuration server managing device (ACSMD), which receives a request for configuration data from an MED. In turn, the ACSMD uses the request for configuration data to identify the appropriate auto-configuration server (ACS) to provide the configuration data to the MED, and then either relays the request for configuration data to the ACS or transmits information identifying the ACS back to the MED. *Id.* at 1:64-2:58; figs. 2, 3a, 3b. The request for configuration data may comprise the Internet Protocol (IP) address of the MED; information on the type or function of the MED; or information on the manufacturer or supplier of the MED. *Id.* at 6:3-9.

KPN has asserted Claims 2, 3, 6, 11, and 16 of the '772 Patent against Xiaomi.¹ Xiaomi asks the Court to construe six terms of the patent.

B. Defendant Xiaomi's Summary

The '722 patent has a filing date of July 30, 2009, and an issue date of November 11, 2014. On January 19, 2022, KPN filed a disclaimer of claims 1, 7-10, 12-13, and 15 of the '722 patent at the USPTO. *See* Section III. A. fn 1. KPN asserts here only claims 2, 3, 6, 11, and 16.

The '772 patent originally had 16 claims, with claims 1, 10, 12, and 15 being independent claims. Claims 1, 10, and 12 were apparatus claims and claim 15 was a method claim. Even though all the independent claims have been disclaimed, certain of their claim elements must be construed because they remain part of the dependent claims which continue to be asserted—in fact, the disputes on claim construction center on claim elements found in the now-disclaimed claims.

The claims of the '722 patent were the subject of an earlier claim construction order in *Koninklijke KPN N.V. v. Samsung Electronics Co., Ltd., et al.*, 2016 WL 2610649 (E.D. Tex. May 6, 2016) (“Samsung *Markman* Opinion”). This earlier claim construction, though not binding on this court, is instructive and will be referred to herein when appropriate.

The '772 patent discloses and claims a system which allows remote management of an electronic device connected to a network. The network is typically a local area network (LAN) located inside a home or business which is connected to a wide area network (WAN), for example, the Internet. The patent discloses that the electronic device discussed therein may be any type of electronic device capable of digital communication, such as a PC, a gateway or router, an electronic appliance, a television, or an IP based telephone. '772 patent, 1:31-33. When such an electronic

¹ Claims 1, 7-10, 12-13, and 15 have been disclaimed.

device is first connected to a LAN the device must be configured to operate properly within the WAN environment into which it will be connected. *Id.* at 1:36-56. According to the '772 patent, this configuration was performed in the past by service personnel or the consumer and was often time consuming and led to errors and failures to connect properly. *Id.* at 1:56-60.

In order to resolve these difficulties, the '772 patent describes prior art electronic devices designed to be connected via the internet to a remotely located auto-configuration server (ACS) that would provide required configuration settings to the electronic device, thus allowing it to operate properly without the need for the owner or operator to manually configure the device. *Id.* at 1:34-45. As an example, a new router would be connected to a home LAN and it would automatically establish a connection to the ACS and initiate a set-up procedure to the WAN.

A disadvantage of the prior art autoconfiguration systems is that the electronic device had to be pre-programmed with the internet address for the ACS to which it connected in order to obtain its configuration data. *Id.* at 1:52-56. If the electronic device is not so pre-programmed, or if the internet address for the ACS has changed since the electronic device was pre-programmed, a technician or the end user had to configure the device during installation. The configuration of the electronic device is time consuming and leads to connection errors similar to the earlier systems that required the end user or technician to provide the configuration settings. *Id.* at 1:56-60.

The purported invention of the '772 patent is said to overcome this disadvantage by providing a system that does not require the electronic device to be pre-programmed with the address for a particular ACS and also does not require a home technician or owner to configure the electronic device. Instead, the invention provides an auto-configuration server managing device (ACSMD), a database in communication with the ACSMD, and a plurality of ACSs to perform this function. *Id.* at 1:66-2:6. The database contains information for the identification of

electronic devices and their associated ACSs. In operation, when the electronic device is connected to a LAN, the electronic device sends a request for configuration data to the ACSMD (the address for which was pre-programmed into the electronic device). Upon receipt of the request for configuration data, the ACSMD identifies the electronic device based on information contained in the request for configuration data received from the electronic device and then determines which ACS from a plurality of ACSs should be connected to the electronic device to provide the desired configuration data. *Id.* at 2:37-58.

This system is said to allow configuration of any type of manageable electronic device at any given location and within any level of service or group specification without pre-configuring a specific dedicated address for configuration data within each device. *Id.* at 2:22-25. The ACSMD will determine which specific ACS is available for a given manageable electronic device, which is said to reduce the complexity of pre-installation and installation of devices. *Id.* at 2:25-29. Also, the system is said to allow a simpler method for setting up dedicated ACSs because the addresses of the ACSs only need to be maintained and updated in a central database accessed by the ACSMD rather than kept current in each manageable electronic device. *Id.* at 2:29-37.

The central point of the invention is that each electronic device transmits a request for configuration data to a central computer (the ACSMD) which analyzes the request and from information contained in the request identifies the electronic device and then directs the request for configuration data to the appropriate auto-configuration server. The system requires the electronic device to initially transmit sufficient data to allow the ACSMD to identify the device and look up the device in an associated database and determine which ACS will provide the needed configuration data. A key point of the invention is that the electronic device initially identify itself in a request for configuration data by providing information such as its IP address, information on

its manufacturer, type, or function (*id.* at 6:5-9; 7:20-26) and that the ASCMD is in communication with the electronic device and the appropriate ACS and is located intermediately between them.

C. Defendant Xiaomi's Position on Person of Ordinary Skill

With respect to the '772 patent, a person of ordinary skill in the art at the time of the invention would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a related field, and at least 2 years of experience in the field of computer networking or development of telecommunication systems, including remote device management systems, or the equivalent. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education.

IV. Agreed-Upon Constructions

- '662 Patent Claim 1: "A device for producing error checking based on original data provided in blocks with each block having plural bits in a particular ordered sequence" – the portion reciting "original data provided in blocks with each block having plural bits in a particular ordered sequence" is limiting. The preamble otherwise is nonlimiting and does not require construction.
- '662 Patent Claims 1-4: "permutation" means "reordering of members of a given set"
- '662 Patent Claims 1: "generating device configured to generate check data" means a "device configured to generate supplementary data for use in checking for errors"
- '662 Patent Claim 1: "check data" means "supplementary data for use in checking for transmission errors"
- '662 Patent Claim 2: "modify the permutation in time" means "change the permutation from time to time"
- '662 Patent Claim 1: "a varying device configured to vary original data prior to supplying said original data to the generating device as varied data" has its plain and ordinary meaning; it is not a means-plus-function term and no construction is necessary.
- '662 Patent Claim 1: "a permutating device configured to perform a permutation of bit position relative to said particular ordered sequence for at least some of the bits in each of said blocks making up said original data without reordering any blocks of original data" has its plain and ordinary meaning; it is not a means-plus-function term and no construction is necessary.

- ’662 Patent Claim 1: “without reordering any blocks of original data” has its plain and ordinary meaning; no construction is necessary.
- ’662 Patent Claim 4: “a table in which subsequent permutations are stored” has its plain and ordinary meaning; no construction is necessary.
- ’772 Patent Claims 1, 10, 15: “[a plurality of] auto-configuration servers (ASCs)” means “two or more systems of hardware and/or software, each of which is capable of automatically configuring a manageable electronic device.”
- ’772 Patent Claims 1, 15: “auto-configuration server managing device (ACSMD)” means “hardware and/or software that relays configuration requests to the auto-configuration servers”
- ’772 Patent Preamble of Claims 10, 15: The preambles are limiting.

V. Disputed Constructions²

A. “controlling access” (Claims 1, 10, 15)

a. Plaintiff’s Opening Position

The dispute over this term is narrow. This term previously was construed by Judge Gilstrap to mean “remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access.” *Koninklijke KPN N.V. v. Samsung Elecs. Co.*, 2016 WL 2610649, at *27 (E.D. Tex. May 6, 2016). In construing the term, the court made clear, however, that “remaining in contact” does not require constant contact between the recited elements. *Id.* at *26. Xiaomi asks the Court to adopt the portion of Judge Gilstrap’s construction analysis that it prefers while ignoring the portion it does not like. The Court should reject that approach. To “ensure that the jury fully understands the court’s claim construction rulings and what the patentee covered by the claims,” the Court should adopt KPN’s construction, which adheres to the specification’s express teachings. *Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) (internal quotation marks omitted).

² As noted above, all disputed claim terms relate to the ’772 Patent.

Claims 1, 10, and 15³ recite an auto-configuration server managing device (ACSMD) “for controlling access” to a plurality of “auto-configuration servers” (ACSs) by a manageable electronic device. *See, e.g.*, Ex. 1 at 9:51-57 (Claim 1). The parties agree that “controlling access” means “remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access.” However, the patent and specification do not require that the ACSMD be in constant contact with the ACSs or the manageable electronic device. *See id.* at 6:3-9, 6:25-28 (disclosing that the ACSMD controls access by receiving and transmitting discrete messages, *e.g.*, “receiv[ing] [a] request” from a manageable electronic device or “transmit[ting] a message to the requesting manageable electronic device”). Nor can Xiaomi point to anything to support such a requirement. There is a reason: no support exists for requiring “constant contact.”

Accordingly, to avoid this risk of confusion and possible error, and to ensure the jury fully understands the Court’s constructions, the Court should instruct the jury that the parties’ otherwise agreed-to construction does not require constant contact between the ACSMD and the other elements. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement.”) (emphasis added); *see also, e.g., Osteoplastics, LLC v. ConforMIS, Inc.*, 2021 WL 4452306, at *1 (D. Del. Sept. 29, 2021) (recommending a construction and a “clarification” that the Court’s construction “d[id] not preclude” particular ways of meeting the claim), *report and recommendation adopted*, 2022 WL 610738, at *5-6 (D. Del. Feb. 14, 2022).

b. Defendant Xiaomi’s Answering Position

³ Claim 12 also recites a “computer . . . for controlling access to the ACSs.” Ex. 1 at 11:23-26.

KPN is correct that the dispute here is narrow. KPN is incorrect, however, that Defendants ask that only a portion of the earlier claim construction be adopted. Instead, it is KPN asking for an additional nonsensical phrase be added to Judge Gilstrap's construction. Judge Gilstrap, after discussing the arguments of the parties before him, and after analyzing the '772 patent and its prosecution history concluded as follows:

Accordingly, the Court hereby construes “controlling access” to mean “remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access.”

Samsung *Markman* Opinion, at *27. KPN, in asking that this claim construction be modified or expanded via a jury instruction, is seeking to insert an earlier comment made by Judge Gilstrap when discussing the patent's prosecution history and the patentee's statements distinguishing the prior art. That earlier statement was not included by Judge Gilstrap in his claim construction ruling, shown in its entirety above.

As Judge Gilstrap explained, during prosecution of the '772 patent, the patentee distinguished the prior art *Ong* reference as follows:

“...Ong discloses a default server ..., and not an ACSMD. The default server of Ong does not control access an ACS but instead sends the address of the ACS back to a requesting customer premises equipment CPE This is not the same as controlling access to the ACS because the default server, as described in Ong, in sending the address of the ACS back to the CPE ceases contact with either, and therefore cannot control whether the CPE does indeed gain access to the ACS of which it has been advised. In addition, the default server is not intermediary between the CPE and the ACS.

In view of the above discussion, Applicants submit that modifying the teachings of Acke with those of Ong does not logically or reasonably lead to “an auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device.”

Id. at *26 (citing Feb. 21, 2013 Response (JCCC, Exhibit I), at 11).

Judge Gilstrap correctly found that KPN’s argument to the Patent Office demonstrated that the “controlling access” limitation “requires remaining in contact with the ACS and the manageable electronic device, and the patentee expressly relied upon that interpretation while distinguishing prior art references.” *Id.* at *26. He also found that such an interpretation was consistent with KPN’s expert’s opinion that “network devices ‘function by transmitting and receiving discreet [*sic*, discrete] packets of data’ such that ‘[c]onstant contact is not required.’” *Id.* Judge Gilstrap then pointed out that defendants in that case were not proposing a “constant” contact limitation. *Id.*

It is important to note that Judge Gilstrap did not include in his claim construction the statement KPN requests be added here. Instead, he pointed out that the defendant in that case had not requested a “constant contact” limitation. Defendants here ask that the same construction entered by Judge Gilstrap be adopted without modification. Just as in the earlier case, Defendants here are not asking for a “constant contact” limitation to the claim.

KPN’s attempt to modify the construction of this claim element should be rejected. *Funai Electric Co., Ltd. v. Daewoo Elecs. Corp.*, 616 F.3d 1357, 1366 (Fed. Cir. 2010) (“The criterion is whether the explanation aids the court and the jury in understanding the term as it is used in the claimed invention.”). The element should be construed as the parties agree except that no such limiting instruction should be included, now or in the future.

c. Plaintiff’s Reply Position

KPN appreciates Xiaomi’s representation that it will not argue that “controlling access” requires “constant contact.” *Supra* at 9-10. However, this does not resolve—and Xiaomi does not address—the “risk of confusion and possible error” if the jury is not instructed that “remaining in contact with the manageable electronic device and the ACS” does not require constant contact between the ACSMD, the MED, and the ACS. *See supra* at 7-8. Indeed, given that both parties

agree that constant contact is not required, there is no reason not to ensure that the jury properly understands that the phrase “remaining in contact” does not require continuous contact. *See Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, No. CA 08-309-LPS, 2012 WL 938926, at *6 (D. Del. Mar. 13, 2012) (finding claim construction was appropriate “to assist the jury in understanding the meaning of the patent claims it will be asked to consider”).

Xiaomi responds that the Court should not adopt KPN’s construction because (i) Judge Gilstrap did not include a “constant contact” instruction in his construction of the term and (ii) the proposed instruction is “nonsensical.” Neither reason holds up. While Judge Gilstrap did not include a “constant contact is not required” instruction in his construction of “controlling access,” it formed part of his conclusions and analysis regarding the term. *See Koninklijke KPN N.V. v. Samsung Elecs. Co.*, 2016 WL 2610649, at *26 (E.D. Tex. May 6, 2016) (concluding that a “remaining in contact with the ACS and the [MED]” construction is “consistent with” the fact that the claims do not require “constant contact”).⁴ Moreover, this Court is not required to adopt Judge Gilstrap’s exact construction. *See Monec Holding AG v. Motorola Mobility, Inc.*, 2013 WL 12218320, at *4 (D. Del. June 11, 2013) (“A prior claim construction has no binding or preclusive effect in this court, particularly where, as here, the defendants were not parties to the earlier action.”). Accordingly, the fact that another judge did not give KPN’s requested instruction in a different case, when confronted with different arguments and different proposed constructions, is irrelevant.

Xiaomi did not bother to explain why KPN’s proposal is “nonsensical,” nor could it. Xiaomi admits that constant contact is not required. *Supra* at 9-10. And Judge Gilstrap expressly

⁴ For that reason, Xiaomi’s suggestion that Judge Gilstrap was merely discussing the parties’ arguments or positions is incorrect. *See supra* at 9.

concluded that such a limitation is consistent with the parties' otherwise-agreed construction. *Koninklijke KPN N.V.*, 2016 WL 2610649, at *26. Together, these prove that KPN's proposal is the opposite of "nonsensical."

Because KPN's proposed construction would assist the jury and Xiaomi offers no substantive reasons in opposition, the Court should adopt KPN's construction and instruct the jury that constant contact is not required to meet this claim. *See Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) ("The terms, as construed by the court, must ensure that the jury fully understands the court's claim construction rulings and what the patentee covered by the claims.") (internal quotation marks and citation omitted).

d. Defendant Xiaomi's Sur-Reply Position

After Xiaomi demonstrated that it was KPN, not Xiaomi, asking the Court to modify the earlier construction issued by Judge Gilstrap, KPN now seeks to add an unnecessary and nonsensical qualifier to the earlier adopted construction. Such an attempt should be rejected.

As explained in Xiaomi's Answering Claim Construction Brief at 5-6 (Section V. A. b), Judge Gilstrap correctly found that the "controlling access" limitation "requires remaining in contact with the ACS and the manageable electronic device, and the patentee expressly relied upon that interpretation while distinguishing prior art references." He also found that his construction was consistent with KPN's expert's opinion that "network devices 'function by transmitting and receiving discreet [*sic*, discrete] packets of data' such that '[c]onstant contact is not required.'" *Id.* The requested addition by KPN is unnecessary because Judge Gilstrap's construction is already plain and clear on its face.

KPN's proposed modification is also nonsensical and is likely to create jury confusion. The jury will be told that **"controlling access"** means: **"remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable**

electronic device gains access.” KPN asks that the jury also be instructed that “constant contact is not required” which is likely to create confusion because of the apparent distinction being drawn between “remaining in contact” and “constant contact.” KPN does not dispute Judge Gilstrap’s finding, however, that the patent specification and KPN’s arguments to the Patent Office demonstrated that “controlling access” required “remaining in contact.” Moreover, “remaining in contact” is a phrase which a lay jury can easily understand and apply to the operation of the accused products. Furthermore, Xiaomi does not intend to argue that the claim element requires more than “remaining in contact.” Thus, KPN’s attempt to modify the earlier construction, which would only obfuscate the meaning of the claim term and confuse the jury, should be rejected and the term should be construed without including KPN’s requested additional language.

B. “communicatively coupled intermediately” (Claim 1) / “disposed as an intermediary” (Claim 10) / “coupled intermediately” (Claim 15)

a. Plaintiff’s Opening Position

The meaning of these straightforward terms is not indefinite, and they are easily understood to disclose exactly what they say: an auto-configuration server managing device (“ACSMD”), which is “communicatively coupled,” *i.e.*, serves as an intermediary or connection, between auto-configuration servers (“ACSs”) and a manageable electronic device, facilitating their communication.

The plain language of the claims demonstrates this. For example, Claim 1 recites an “auto-configuration server managing device (ACSMD),” which is “communicatively coupled intermediately between” ACSs and a “manageable electronic device.” Ex. 1 at 9:55-58 (emphasis added). The claim language goes on to teach that the ACSMD enables information, or communications, to pass between the ACSs and the manageable electronic device, where the “manageable electronic device is configured to send a request for configuration data to the

ACSMD,” which ultimately is “configured to relay the request” to an ACS it identifies. *Id.* at 9:62-10:10. Thus, the ACSMD is “communicatively coupled intermediately between” the ACSs and the manageable electronic device, insofar as it serves as an intermediary or connection between the two that enables the ACSs and the manageable electronic device to communicate. *See also id.* at 10:55-11:12 (Claim 10) (teaching a “computer configured for remote device management,” which is “disposed as an intermediary between” a manageable electronic device and ACSs, by “relay[ing]” requests received from the manageable electronic device to an identified ACS); 12:13-36 (Claim 15) (the ACSMD is “coupled intermediately between the ACSs and the manageable electronic device,” and “relay[s]” a “request for configuration data” that initiated from “the manageable electronic device” to “an [identified] ACS from [a] plurality of ACSs”).

This understanding also is consistent with the disclosures in other claims of the ’772 Patent, which use “coupling” in reference to an intermediary for communications between other things. *See, e.g.,* Ex. 1 10:40-43 (Claim 7) (reciting that the manageable electronic device itself is “an interfacing device for coupling a local area network (LAN) into communication with the network (WAN)” (emphasis added)). The specification confirms this clear meaning. *See, e.g., id.* at 2:3-5 (embodiment in which the ACSMD is “coupled in a communicative connection” with a database); 5:35-39 (“the interfacing device 1 is coupled to the DSL access multiplexer (DSLAM), which establishes a connection between the interfacing device 1 (and the local network LAN) and a WAN network switch” (emphasis added)). Thus, any POSITA would understand what the patent means when it recites how the ACSMD is “communicatively coupled intermediately between” ACSs and a manageable electronic device, and the claims are not indefinite.

In contrast, Xiaomi’s alternative construction merely seeks to add additional unsupported limitations. First, rather than the ACSMD facilitating or enabling communications between the

manageable electronic device and ACSs, Xiaomi would impose a new limitation in which the ACSMD must be “in” active “communication with” the manageable electronic device and ACSs. That is not what the claim language says. On the contrary, the system disclosed in Claim 1 is “configured to” transmit communications between the ACSs and the manageable electronic device, through the ACSMD, as is the “computer configured for remote device management” disclosed in Claim 10. *See, e.g., Rothschild Connected Devices Innovations, LLC v. Coca-Cola Co.*, 813 F. App’x 557, 563-64 (Fed. Cir. 2020) (“configured to receive an identity of a user and an identifier of a beverage” does not “require that such communication actually occurs”). Only Claim 15 teaches actually transmitting communications, rather than being configured to do so. *See, e.g., Ex. 1* at 12:23 (“the manageable electronic device sending a request” (emphasis added)).

Second, Xiaomi’s construction either misconstrues the claim language or is redundant. Xiaomi suggest that “communicative coupling” must be between “the electronic device and the ACSs.” Combined with Xiaomi’s “in communication with” limitation, this construction would require that the ACSMD be in ongoing communication with the manageable electronic device and multiple “ACSs.” But the claims teach that while the ACSMD must be “coupled intermediately” between a “plurality” of “ACSs and the managed electronic device,” it could facilitate active communications with only one “identified ACS.” *See, e.g., Ex. 1* at 12:14-36 (Claim 15). Further, the claim language already states that the ACSMD couples between the ACSs and the manageable electronic device. Accordingly, Xiaomi’s limitation of between “the electronic device and the ACSs” either attempts to change the meaning of the claims, or adds nothing to claim language that is already present.

The Court should construe these terms to have their plain and ordinary meaning.

b. Defendant Xiaomi’s Answering Position

KPN proposed that these terms be given their plain and ordinary meaning without

identifying that meaning. There is no plain and ordinary meaning to the terms as used in the claims because the claim terms are indefinite.

Indefiniteness is a question of law resolvable during claim construction. *Personalized Media Commc'ns., LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998) (“[I]ndefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.”); *Huber Engineered Woods LLC v. Louisiana-Pac. Corp.*, No. 19-342-LPS, 2020 WL 5132922, at *9 (D. Del. Aug. 31, 2020) (ruling on indefiniteness during claim construction). Although permitted “some modicum of uncertainty,” a patent’s claims, viewed in light of the specification and prosecution history, must inform those skilled in the art about the scope of the invention with reasonable certainty. *One-E-Way, Inc. v. ITC*, 859 F.3d 1059, 1062-63 (Fed. Cir. 2017); *Huber Engineered Woods*, 2020 WL 5132922, at *9 (“A term is indefinite where the claims, ‘read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.’”) (citing *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014)).

To understand why this claim element is indefinite, the entire claim element must be considered. The relevant part of claim 1 reads as follows:

An auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device...

It is unclear from this language whether it is the ACSMD which is communicatively coupled intermediately between the plurality of ACSs and the managed electronic device, or a group of ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device. Is the ACSMD controlling access to one group of ACSs communicatively coupled between a plurality of ACSs and the managed electronic device? Or is the ACSMD coupled intermediately between the plurality of ACSs and the managed electronic

device and controlling access to those ACSs? Because the claim term can be read with either meaning, the claim term is unclear, and thus indefinite.

If the claim term is interpreted to mean that the ACSMD is coupled between the plurality of ACSs and the managed electronic device, and that this coupling provides the ability for the managed electronic device to communicate with the ACSs, then the claim term would be logical and meaningful. That is the reason Defendants proposed their alternative claim interpretation. Apparently recognizing the potentiality for two meanings for the claim term, KPN argues that the claim term requires the ACSMD be “communicatively coupled intermediately between the ACSs and the managed electronic device, and that it serves as an intermediary or connection between the two....” *See* Section V. B. a. Defendants believe their proposed construction has the same meaning as that presented by KPN, but expressed in clearer terms that will be easier for the jury to understand. If the claim term means that the ACSMD is coupled between the electronic device and the ACSs, then those specific words should be used to avoid confusing the jury, and to prevent the jury being required to understand that this is the “plain and ordinary meaning” of the term.

KPN next argues that Defendants’ proposed claim construction distorts the meaning of the claim because it would require the ACSMD be in ongoing communication with the manageable electronic device and multiple ACSs. Defendants’ proposal, even if read in the manner proposed by KPN, does not distort the claim. It is clear that the ACSMD must be able to communicate with multiple ACSs, as shown and described in the ’772 patent. ’772 patent, 5:8-13. And KPN readily admits that the ACSMD must be capable of “facilitating or enabling communications between the manageable electronic device and ACSs....” *See* Section V. B. a.

Defendants’ construction requires no more. It does not require constant communication between the ACSMD and all the ACSs, but instead that they be able to communicate, *i.e.*, be in

contact with each other so they can share data when appropriate. The ACSMD must be able to send communications to any one of the ACSs, depending on the identity of the manageable electronic device, because different ACSs will be required to provide configuration information to different manageable electronic devices. This is why Defendants' proposed construction requires that the ACSMD be in communication with the ACS. If KPN's objection is that the proposed construction by Defendants' affirmatively requires communication between the ACSs and the electronic device via the ACSMD, Defendants suggest their proposed construction be modified, as described below, to make clear that communication is not required, but must be possible.

In summary, the claim element is indefinite as written because it is unclear how the components are connected with each other. However, if the Court is inclined to construe the claim at this stage of the case, it should be construed as **“coupled between, and capable of communication with, the electronic device and the ACSs.”**

c. Plaintiff's Reply Position

Xiaomi claims these three terms are indefinite because, according to Xiaomi, in Claim 1 it is not clear whether it is the ACSMD that is “communicatively coupled intermediately” between the ACSs and the MED, or whether “a group of ACSs [is] communicatively coupled intermediately between the plurality of ACSs and the managed electronic device.” *Supra* at 17. Xiaomi's efforts to twist the patent's clear disclosures should be rejected.

Claim 1 does not disclose both a “group of ACSs” and a separate “plurality of ACSs” that facilitate communications between themselves. The claim discloses “a plurality of auto-configuration servers (ACSs)” and then repeatedly refers back to “the ACSs” and “the plurality of ACSs”—plainly referring back to the same ACSs. *See* Ex. 1 ('772 Patent) at 9:53-57. Nor would a POSITA reading the patent have any confusion about whether the ACSMD serves as an intermediary between the ACSs and the MED, as the claim language goes on to teach that

explicitly and in detail. For example, it states at 9:65-10:11 that the ACSMD “receiv[es] a “request for configuration data” from the MED and “relay[s] the request to the identified ACS.”

Xiaomi thus cannot carry its burden on indefiniteness because the language in Claim 1 cannot be read in the “alternative” manner that Xiaomi suggests, and Xiaomi does not even proffer indefiniteness arguments for “disposed as an intermediary” or “coupled intermediately,” in Claims 10 and 15. *See supra* at 16-17. In fact, Xiaomi admits that, if the claim language is read in that manner (the only way it can be), it is “logical and meaningful.” *Supra* at 17. Thus, there is no reason for a construction at all, and the Court should order plain and ordinary meaning.

There is nothing “clearer” or “easier to understand,” *supra* at 17, about Xiaomi’s alternative construction either. On the contrary, as explained in KPN’s opening brief, Xiaomi’s alternative construction makes hash of what the patent actually discloses.

Xiaomi barely responds to these points in its answering brief. Xiaomi admits that the claim language “does not require constant communication between the ACSMD and all the ACSs, but instead that they be able to communicate.” *Supra* at 18. That is inconsistent with Xiaomi’s proffered alternative construction, which states that the ACSMD must be “in communication with, . . . the ACSs.” *See* D.I. 46 (Joint Claim Construction Chart) at 6 (emphasis added).

Xiaomi also tries to offer yet another (untimely) alternative construction, *see id.*, but cannot explain why it is necessary given the plain meaning. *See Nichia Corp. v. TCL Multimedia Tech. Holdings, Ltd.*, No. CV 16-681, 2017 WL 5719267, at *6 (D. Del. Nov. 28, 2017) (finding the plaintiff’s proposed construction “redundant” where the proposed construction was “apparent from the claim language” and there was therefore “no reason to add [the proposed] language to the definition of the term”).

d. Defendant Xiaomi’s Sur-Reply Position

KPN asks that these terms be given their plain and ordinary meaning without identifying

that meaning. As Xiaomi explained in its Answering Brief at pgs. 6-9, (Section V. B. b.), there is no plain and ordinary meaning for the terms as they are used in the claims because the claim terms are indefinite.

The relevant part of claim 1 reads as follows:

An auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device...

Indeed, it is unclear from this language whether it is the ACSMD that is communicatively coupled intermediately between the plurality of ACSs and the managed electronic device, or a group of ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device. KPN admits the claim refers first to “a plurality of auto-configuration servers (ACSs)” and then later refers to both “the ACSs” and “the plurality of ACSs”. *See* Section V. B. c. Use of different words to describe different elements or features is an accepted practice in drafting claims. But when an applicant uses different words to specify an element or feature in a claim it is presumed the applicant means to refer to different elements or features. *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1579 (Fed. Cir. 1996) (“If the terms ‘pusher assembly’ and ‘pusher bar’ described a single element, one would expect the claim to consistently refer to this element as either a ‘pusher bar’ or a ‘pusher assembly,’ but not both, especially not within the same clause.”). The “mix and match” phrasing used in claim 1 when referring to “the ACSs” and “a plurality of ACSs” is presumed to refer to different elements. This creates confusion regarding the connections described in the claim, and therefore renders the claim indefinite.

Contrary to KPN’s assertion, Xiaomi addressed claims 1, 10, and 15 together in its original brief, showing that they all suffer from the unclear language, referring at various times to “the ACSs” and at other times to “the plurality of ACSs”. Thus, each claim is indefinite because it is unclear what element is being addressed by the various use of those terms in the claims.

Xiaomi proposed an alternate construction for these elements should the Court find these terms not indefinite. The alternate construction is clearer and easier for the jury to understand, and KPN fails to show otherwise. KPN argues “the ACSMD serves as an intermediary between the ACSs and the MED” and that the ACSMD receives requests from the MED and relays those request to the identified ACS. *See* Section V. B. c. If that is what the claim element is intended to mean Xiaomi submits that its proposed construction—**“coupled between, and capable of communication with, the electronic device and the ACSs.”**—is a fair and clear articulation of that meaning

C. [1] “storing information for the identification of electronic devices” (Claim 1, 10, 15) / [2] “for the identification of electronic devices” (Claims 1, 10, 15)

a. Plaintiff’s Opening Position

During the meet and confer process, Xiaomi explained that it believes these terms are indefinite because the claims disclose a database “storing information for the identification of electronic devices” rather than for the identification of “manageable” electronic devices. Xiaomi is wrong; there is nothing unclear or ambiguous about this language.

For starters, it is no mystery that a “manageable electronic device” is simply a type of “electronic device.” The specification teaches that explicitly—stating: “One or more of the electronic devices 2, 3, 4 may also be a manageable electronic device.” Ex. 1 at 3:64-4:4; *cf. Samsung Elecs. Co.*, 2016 WL 2610649, at *21 (explaining that a “manageable electronic device” in the ’772 Patent is simply an “electronic device that can be configured over a network”).

Nor is there anything ambiguous about the claims disclosing a database “storing information for the identification of electronic devices.” The patent discloses that the ACSMD may compare the “information for the identification of electronic devices” stored at that database to a “request for configuration data” received from a manageable electronic device in order to

“identify the manageable electronic device.” Ex. 1 at 9:59-10:4 (Claim 1). There is nothing unclear or inconsistent about this language: the ACSMD receives a request for configuration data from a manageable electronic device, and compares that request to information in a database that can be used to identify various electronic devices, a manageable electronic device being one type of device that can be identified using the information in the database. *See, e.g., id.* at 6:10-13 (disclosing embodiment in which “the received IP address of the manageable electronic device” is compared “with a first database 26 (or IP address database) that comprises IP address information”).

The prosecution history cited by Xiaomi also supports KPN’s position. *See* ECF No. 46-9 (Ex. I to Joint Claim Construction Chart) (’772 Patent File History) at 11. As KPN explained, the patent’s disclosure of a “database ... for storing information for the identification of electronic devices” was in contrast to Ong, which teaches “a database where the CPE identifying information is used to identify the network address of a configuration server.” *Id.*

Finally, Xiaomi’s alternative construction also should be rejected because it appears to require that the database contain all the information used “to identify” the manageable electronic device rather than simply information sufficient to enable its identification. Ex. 1 at 6:3-18 (identifying various examples of what information may be included). Xiaomi’s construction thus would change the claim language, which requires only that the database store information “for the identification” of electronic devices. *See id.* at 6:15-18 (teaching that the ACSMD may perform its comparison “directly or via a set of additional translations using the identification of the access line ... , for linking a communication line to a customer”).

These terms are easily understood and unambiguous; no construction is necessary.

b. Defendant Xiaomi’s Answering Position

These claim terms are indefinite because the term “electronic devices” has no antecedent

basis in the claim. *See In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014) (affirming indefiniteness rejection based partly on lack of antecedent basis). “[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus*, 572 U.S. at 901. This claim term is ambiguous because it is unclear which “electronic devices” the claim language is identifying.

The claim earlier identifies a “manageable electronic device.” Usage of the singular “a” indicates is a specific electronic device that will be managed by the claimed system. But the claim later identifies, but does not have antecedent basis for, the plural term “electronic devices.” The phrase “electronic devices” is not found earlier in the claim. And the use of that plural form in association with a database which contains information for the identification of “electronic devices” indicates that the usage of the plural is not an error, but is intentional. It would make little sense to have a database which only contained information for one device.

KPN argues that the specification teaches that the managed electronic device is a type of electronic device, and therefore suggests that the phrase “electronic devices” used in the claims must refer to the earlier identified “manageable electronic device.” *See* Section V. C. a. The problem with that reading is that the specification and claim also address other electronic devices used in the claimed system. For example, the computer, the components of the LAN, the components of the WAN, the ACSMD, the memories containing databases to provide data to the ACSs, and the ACSs themselves are all electronic devices. So the fact that the managed electronic device is an electronic device does not shed clarity on the scope and meaning the term “electronic devices” used in the claim.

The context in which a questioned claim term is used in a claim can often shed light on the

meaning of the term. *MagSil Corp. v. Seagate Tech.*, 692 F. Supp. 2d 402, 406 (D. Del. 2010) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005)) (“As would the person of ordinary skill in the art, we read the claim terms in context, including not only the particular claims in which the terms appear but also in the context of the entire patent, including the specification and, if in evidence, the prosecution history.”). The claim term challenged here is used, for example, in claim 1 as follows:

at least one database communicatively coupled to the ACSM[D, sic] and storing information for the identification of electronic devices.

’772 Patent, 9:59-61. Here, considering the context of the claim term does not shed light on its meaning. For example, is the database storing information on all types of electronic devices that might be connected to the network in the future, each of which at some time might be considered a manageable electronic device? Is the database storing information identifying the various ACSs which are connected to the network? The latter is as reasonable as the former—in fact, the patent teaches that the ACSMD determines which of the multiple ACSs is the appropriate ACS to provide configuration data to the managed electronic device. ’772 patent, 6:35-43. To make that determination, the ACSMD must obtain information regarding the various ACSs from a database. The patent clearly teaches that information identifying which ACS contains configuration data for any given electronic device is contained in a database accessed by the ACSMD. *Id.* at 6:35-51.

The indefinite nature of the claim is unintentionally emphasized by KPN in its opening brief. KPN argues that the prosecution history of the patent supports its position that the claim is not indefinite. *See* Section V. C. a. However, the portion of the prosecution history cited by KPN shows that KPN distinguished the prior art *Ong* reference from the then-pending claims by arguing that *Ong*, “teaches ‘a database where the CPE identifying information is used to identify the network address of a configuration server.’” *Id.*

As discussed above, the '772 patent also teaches that a database is used to identify the address of the appropriate ACS to configure the device. '772 patent, 5:35-44. Because of the indefinite nature of the claim term, it can be interpreted to read on the prior art *Ong* system, contrary to what KPN argued to the examiner during prosecution of the '772 patent.

Because the patent claim and the specification do not provide a clear and distinct meaning for the claim term “electronic devices” the claim is indefinite. *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1366 (Fed. Cir. 2011) (claims are held indefinite if “one of ordinary skill in the relevant art could not discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art.”). KPN should not now be allowed to rewrite the claim to narrow its scope to avoid indefiniteness and possible invalidity over the prior art.

KPN argues that Defendants’ proposed construction “appears to require that the database contain all the information used “to identify” the manageable electronic device rather than simply information sufficient to enable its identification.” *See* Section V. C. a. That is not the case. Defendants’ proposed construction requires “information to identify” the device—not **all** information used to identify it. KPN concedes that the claim requires the database store information “for the identification” of electronic devices. *Id.* It is unclear what the distinction is between “information to identify” as proposed in KPN’s construction and the “information for the identification” KPN says the claim element requires. Either phrasing requires information sufficient to identify the electronic device.

Should the Court be inclined to construe this term, however, it should be interpreted to mean that the database is one which **“contains information to identify the manageable electronic device”**. That is the meaning that KPN apparently regards as its plain and ordinary

meaning. *See* Section V. C. a. (arguing that the manageable electronic device is a type of electronic device, and that the database contains information to identify the manageable electronic device). It is also the meaning that most comports with the patent specification and the prosecution history, as discussed above. *See Phillips*, 415 F.3d at 1315.

c. Plaintiff's Reply Position

Xiaomi's indefiniteness arguments for this term also fail. Xiaomi suggests it is not clear "which" electronic devices the claims are referring to when they recite "a database" "storing information for the identification of electronic devices"—arguing that the term "electronic devices" "has no antecedent basis in the claim" and is thus indefinite. *Supra* at 23.

As demonstrated by the fact that it does not cite a single supporting case, Xiaomi's argument is nonsensical. Under bedrock patent law, only a claim term that is preceded by a definite article (such as "the" or "said") may require antecedent basis (*i.e.*, a prior claim term reciting an indefinite article such as "a" or "an"). *See generally Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008) (discussing indefinite and definite articles in antecedent basis); *see also Guardant Health, Inc. v. Found. Med., Inc.*, No. CV 17-1616-LPS-CJB, 2019 WL 5677748, at *10 (D. Del. Nov. 1, 2019) ("The Federal Circuit has explained that use of definite articles such as 'the' and 'said' are 'anaphoric phrases, referring to the initial antecedent phrase.'" (quoting *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342-43 (Fed. Cir. 2008))), *report and recommendation adopted*, No. CV 17-1616-LPS-CJB, 2020 WL 1329513 (D. Del. Mar. 23, 2020). Here, the simple fact that "electronic devices" is not preceded by any such definite article thus refutes Xiaomi's argument.

Xiaomi's observation that the patent also references "other electronic devices used in the claimed system," *supra* at 24, disproves its own point. Under the plain language of the disputed term, the database can store information for the identification of any manner of electronic devices,

including “the computer, the components of the LAN, and the components of the WAN” that Xiaomi points out. *Id.* There is no antecedent basis problem because the claim language does not refer to a database for storing “information for the identification of the electronic devices,” or “said electronic devices.” Thus, there is no question raised by the claim language as to which “electronic devices” may be identifiable using information stored in the database, save at least information for the “identification of the manageable electronic device,” Ex. 1 (’772 Patent) at 10:5-7.

Xiaomi also makes no headway to sustaining its burden to establish indefiniteness with its prosecution history arguments. In fact, Xiaomi’s arguments are backwards, contending that KPN’s statements to the patent examiner were incorrect “[b]ecause of the indefinite nature of the claim term.” *Supra* at 25. This assumes Xiaomi’s strained indefiniteness argument rather than proving it. Xiaomi would have the Court believe that KPN’s claim construction argument is inconsistent with the applicant having contrasted the patent’s “database . . . for storing information for the identification of electronic devices” with a prior art “database where the CPE identifying information is used to identify the network address of a configuration server.” *Supra* at 25. But Xiaomi’s perceived tension lies in its own conflation of information actually identifying an electronic device, and information that permits identification of an electronic device. *See infra* at 31-32.

Xiaomi does not try to explain why its alternative construction (offered for the first time in its opposition brief) is necessary. *See supra* at 26. Instead, Xiaomi purports to simply restate the claim’s plain meaning. *Id.* That is unnecessary under clear law, *see Nichia Corp.*, 2017 WL 5719267, at *6; the Court should construe the term to simply have its plain and ordinary meaning.

d. Defendant Xiaomi’s Sur-Reply Position

KPN incorrectly argues that Xiaomi cited no cases in support of its argument that these claim terms are indefinite. Xiaomi’s opening brief relied on *In re Packard*, which affirmed an

indefiniteness rejection based on lack of antecedent basis, and *Nautilus*, which held that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *In re Packard*, 751 F.3d at 1310, 1314; *Nautilus*, 572 U.S. at 901. This claim term is ambiguous and lacks antecedent basis because it is unclear which “electronic devices” the claim language is identifying, thereby making the scope of the claim unclear. KPN makes much of the fact “electronic devices” is not preceded by a definite article so there is no antecedent basis problem. *See* Section V. C. c. However, antecedent basis issues more broadly encompass any instance where it is “unclear as to what element the limitation is making reference,” like here. *See Sensor Elec. Tech., Inc. v. Bolb, Inc.*, No. 18-CV-05194-LHK, 2019 WL 4645338, at *31 (N.D. Cal. Sept. 24, 2019) (quoting *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008)). Regardless of whether the issue with the claims containing these terms is appropriately called an antecedent basis problem is beside the fact. The point is that, as the claims are drafted, the scope is ambiguous and therefore indefinite as explained in Xiaomi’s Answering Brief. *See* Section V. C. b.

KPN appears to argue that when the term “electronic devices” is first used in the claim, it is unrelated to a “manageable electronic device,” so no antecedent basis is needed. Even assuming that the term is first used in the phrase “storing information for the identification of electronic devices,” KPN has no explanation for why the term appears again later in the claim without any preceding article in the phrase “the information for the identification of electronic devices.” If KPN’s view of the claim was correct, this second instance should include a definite article (*e.g.*, “the” or “said”). Accordingly, KPN cannot dispute that at least this second instance of the term “electronic devices” lacks antecedent basis, thereby rendering the claims with this term indefinite.

The indefinite nature of the claim is further demonstrated by the prosecution history of the '772 patent. KPN distinguished the prior art *Ong* reference from the then-pending claims by arguing that *Ong*, “teaches ‘a database where the CPE identifying information is used to identify the network address of a configuration server.’” *See* Section V. C. a.

The '772 patent also teaches that a database is used to identify the address of the appropriate ACS to configure the device. '772 patent, 5:35-44. If the claim term is read broadly to cover any type of electronic device, as KPN urges, it would read on the prior art *Ong* system, contrary to what KPN argued to the examiner during prosecution of the patent. It is improper to construe a claim term so that the claim will read on the prior art. *See Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1384 (Fed. Cir. 2001) (“Claims amenable to more than one construction should, when it is reasonably possible to do so, be construed to preserve their validity.”). This is particularly the case when the patent applicant distinguished the prior art based on a narrower interpretation of the claim term. *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378 (Fed. Cir. 1998) (“[S]tatements made by a patent applicant during prosecution to distinguish a claimed invention over prior art may serve to narrow the scope of a claim.”). Because the patent claim and the specification do not provide a clear and distinct meaning for the term “electronic devices” the claim is indefinite. *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1366 (Fed. Cir. 2011) (claims are indefinite if “one of ordinary skill in the relevant art could not discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art.”). KPN should not now be allowed to rewrite the claim to narrow its scope to avoid indefiniteness.

D. “request for configuration data” / “request from a manageable electronic device for configuration data” (Claims 1, 10, 15)

a. Plaintiff’s Opening Position

The meaning of this term is clear and does not require construction. As is explicitly confirmed by the claims themselves, the term means what it says: “configuration data comprise data for configuring the manageable electronic device.” Ex. 1 at 9:64-65 (Claim 1); 11:9-10 (Claim 10); 12:1-2 (Claim 12); 12:25-26 (Claim 15) (emphasis added). Accordingly, because the term is plain and readily understandable by a person of ordinary skill in the art, it requires no construction. *See PDL Biopharma, Inc. v. Alexion Pharms., Inc.*, 568 F. Supp. 2d 445, 459 (D. Del. 2008) (“The Court . . . finds that this claim term does not require construction since its plain meaning would be clear to one of skill in the art.”).

At a minimum, however, Xiaomi’s proposed construction should be rejected because it would exclude various preferred embodiments. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (holding that constructions that exclude disclosed embodiments are “rarely, if ever, correct, and would require highly persuasive evidentiary support”). First, Xiaomi’s proposal improperly limits “request[s] for configuration data” to “request[s] for settings and/or parameters.” While “settings” are one example of configuration data that may be requested by a manageable electronic device (for example, an IP-based telephone requesting “service level settings” from a telecommunications provider, *see* Ex. 1 at 1:30-33, 1:44-45), the patent discloses an embodiment in which the MED is a “networkable consumer electronic[]” device that requests “software upgrades or diagnostics” from the device manufacturer. *See id.* at 9:29-44. “Software upgrades” and “diagnostics” (*i.e.*, testing processes to ensure a device is working properly) are not “settings and/or parameters.” Because Xiaomi’s proposal would exclude this embodiment, it must be rejected.

Second, Xiaomi’s proposal requires a “request for configuration data” to “include[] . . . in part information identifying the electronic device.” But this, too, reads out a disclosed

embodiment. In that embodiment, “the auto-configuration server manager receives [a] request [for configuration data] from the manageable electronic device 1.” Ex. 1 at 6:3-4. While the request “[t]ypically ... comprises the IP address of the manageable electronic device 1” (*i.e.*, information “identifying the electronic device”), it may simply “comprise information on the manufacturer or supplier of” the MED, *id.* at 6:5-9—that is, information identifying the manufacturer or supplier, not “the electronic device,” as Xiaomi’s construction would require. *See also id.* at 9:40-44 (disclosing embodiment in which “the auto-configuration server manager is capable to determine the auto-configuration server associated with the [MED] based on at least one of the identification of the supplier and the identification of the type of product,” not on the identification of the manageable electronic device itself (emphasis added)).

Accordingly, Xiaomi’s proposed construction should be rejected and the Court should order plain and ordinary meaning for this term. *See, e.g., Idenix Pharms., Inc. v. Gilead Scis., Inc.*, No. CV 13-1987-LPS, 2015 WL 9048010, at *6 (D. Del. Dec. 16, 2015) (rejecting proposed construction that “would read various preferred embodiments out of the claim language”).

b. Defendant Xiaomi’s Answering Position

This claim term should be construed to mean “request for settings and/or parameters that includes in part information identifying the electronic device.” This construction should be adopted because the claim term has no plain and ordinary meaning and arguments about its meaning will likely confuse the jury. The source of confusion is evident from the arguments presented by KPN to support its assertion that the term should be given its plain and ordinary meaning.

KPN argues that Defendants’ proposed construction excludes various preferred embodiments. More specifically, KPN first argues that the proposed construction would exclude a request for software upgrades or diagnostics from the claim scope. *See* Section V. D. a.

However, that embodiment is properly outside the scope of the allowed claims, and thus the claims should not be read to cover that embodiment. The specification distinguishes provision of configuration data from provision of other information, such as software updates or diagnostics:

It is noted that the present invention is not limited to providing configuration data to a manageable electronic device for a certain level of service, but the present invention may also be used for support provided by manufacturers of electronic equipment over the wide area network. For example, the present invention may be used as a service for networkable consumer electronics to provide software upgrades or diagnostics through a default configuration address....

'772 patent, 9:29-36. It is clear from this excerpt that the patent considers a request for configuration data to be different from requests for software upgrades or diagnostics. The difference is real—configuration data is required to first connect the electronic device to the WAN. The problems experienced in the prior art in providing correct configuration data are said in the '772 patent to be the reason the systems in the patent were developed. Those initial set-up problems have no relationship to later-provided software updates or remotely running diagnostics on the electronic device.

The claims at issue here all address providing initial configuration data to the controllable electronic device. Claims 1, 10, 15, and all the claims that depend from them specifically require that “configuration data” be requested and provided. No claim specifies providing other types of services such as software updates or diagnostics in response to a request. This is why the claim term “request for configuration data” should be properly construed.

Although KPN may wish the claims were written more broadly, they are not. The claim element at issue does not support a claim interpretation that would read on unclaimed embodiments that perhaps are disclosed in the penultimate paragraph of the specification, and the claim should not be broadened via an overly broad “plain and ordinary meaning” construction to cover such unclaimed embodiments. *See Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 708 (Fed. Cir.

2020) (“[when] the patent describes multiple embodiments, every claim does not need to cover every embodiment. This is particularly true [when] the plain language of a limitation of the claim does not appear to cover that embodiment.”) (citing *Pacing Techs., LLC v. Garmin Int’l, Inc.*, 778 F.3d 1021, 1026 (Fed. Cir. 2015)).

KPN’s second objection to Defendants’ proposed construction is that it reads out an embodiment allowing the ACSMD to receive and respond to a request for configuration data that may only include information on the manufacturer or supplier of the manageable electronic device. KPN Brief at 16. KPN is incorrect. In cases where the request for configuration data includes only information on the manufacturer or supplier of the device, that information is clearly sufficient information to identify the electronic device. If that were not the case, the claimed system would not operate properly. The ACSMD must be able to identify the electronic device based on the information supplied by the device in its request for configuration data in order to identify which ACS contains configuration data appropriate for the device. The claim does not address what type of identification information is required, only that the identification information be sufficient to allow the ACSMD to select the appropriate ACS so that the correct configuration data can be provided to the electronic device.

Finally, KPN objects to the use of the word “parameters” in Defendants’ proposed construction. Defendants attach no particular meaning to the use of the word, and intend it to be used as a complement to “settings” to together encompass the full range of information required to properly configure the electronic device.

In summary, the first embodiment KPN argues is omitted by Defendants’ proposed claim construction is not properly covered by the claim, and the second embodiment is covered by definition if the system operates properly. KPN’s proposal that the claims be given their plain and

ordinary meaning results in the claims covering an embodiment not properly covered by the claim. Therefore, the claim element should be construed to mean **“request for settings and/or parameters that includes in part information identifying the electronic device.”**

c. Plaintiff’s Reply Position

Xiaomi baldly states that this term “has no plain and ordinary meaning,” but fails to offer any argument to support its assertion. *Supra* at 32-34. For the reasons stated in KPN’s opening brief, the meaning of this straightforward phrase is clear, and it therefore does not require construction. Specifically, a “request” is an act of asking for something; “data” is “information in digital form that can be transmitted or processed”; and “configuration” is a “relative arrangement of parts or elements.”⁵ Thus, a “request for configuration data” is understandable, even to a layperson, as “an act of asking for information in digital form that relates to a relative arrangement of parts or elements”—here, the parts and elements relating to the hardware and software of the manageable electronic device. Accordingly, no construction is required. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”).

KPN replies to Xiaomi’s specific arguments below.

- (i) Xiaomi’s proposed construction excludes a disclosed embodiment by wrongly limiting “configuration data” to only “initial” configuration data.

⁵ *Request*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/request>; *Data*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/data>; *Configuration*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/configuration>.

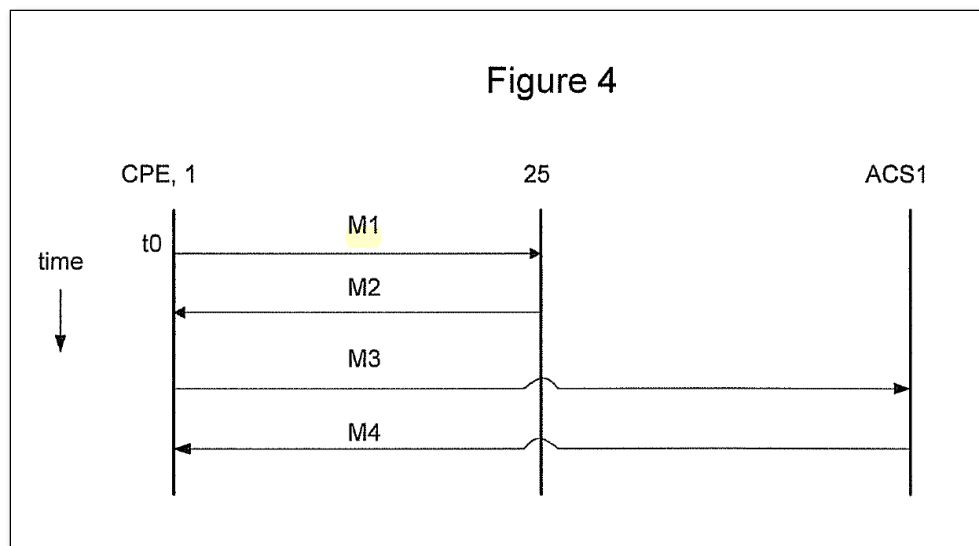
Xiaomi acknowledges that its proposed construction would exclude a disclosed embodiment, but contends the embodiment “is properly outside the scope of the allowed claims” and therefore has no bearing on the construction of the term. *Supra* at 32. But the intrinsic evidence—which Xiaomi ignores—proves Xiaomi wrong.

The embodiment in question discloses a request by the MED for “software upgrades or diagnostics.” Ex. 1 (’772 Patent) at 9:33-44. Xiaomi does not dispute that software upgrades and diagnostics are not encompassed by its proposed “settings and/or parameters,” and that its proposal would therefore exclude the embodiment. *Supra* at 32. Xiaomi nevertheless contends that the “software upgrades or diagnostics” embodiment may simply be ignored because it is “unclaimed” and “outside the scope of the allowed claims.” Under Xiaomi’s reading, the patent draws some distinction between (1) “request[s] for configuration data”—the disputed term—and (2) “requests for software upgrades or diagnostics,” thus showing that the former cannot comprise the latter. *Supra* at 32-34.

Xiaomi’s distinction is wrong. The patent and specification make clear that a request for software upgrades or diagnostics is a “request for configuration data.” For starters, the specification teaches that in the embodiment in question, the MED will request, *e.g.*, software updates or diagnostics through a “request in the first message M1.” Ex. 1 (’772 Patent) at 9:37-40. In turn, the patent explains that this “first message M1” “comprises the **request for configuration data** from the dedicated auto-configuration server”:

At a time t_0 , the manageable electronic device CPE; 1 sends a first message M1 to the default IP address or URL 15 provided in the memory of the manageable electronic device 1 as address for a dedicated auto-configuration server, which default (IP) address or URL points to the auto-configuration server manager 25. The first message comprises the request for configuration data from the dedicated auto-configuration 20 server. Further the first message M1 comprises at least the IP address (or URL) of the manageable electronic device as identification on the wide area network WAN, an identification of the type or function of the manageable electronic device and optionally additional identification, for example 25 the identity of the supplier/manufacture of the device.

Id. at 7:14-21 (emphasis added). Fig. 4 of the patent also depicts an M1 message comprising a request for configuration data:



Accordingly, a request for “software upgrades or diagnostics” is a “request in [a] first message M1,” Ex. 1 (’772 Patent) at 9:38, and therefore a “request for configuration data.” *E.g. id.* at 7:14-21 & fig. 4. No other message from the device to the ACSMD and no other type of request is disclosed in the patent. Xiaomi simply disregards these contrary facts.⁶

⁶ Xiaomi’s assertion that “[n]o claim specifies providing other types of services [other than configuration data] such as software upgrades or diagnostics in response to a request.” *Supra* at

Other parts of the specification support this conclusion. For example, the patent teaches that in the “software upgrades or diagnostics” embodiment, software upgrades or diagnostics are provided “through a default configuration address” by a specific “auto-configuration server” identified by an “auto-configuration server manager.” Ex. 1 (’772 Patent) at 9:37-44 (emphasis added). This “configuration address” is the same “address for configuration” recited elsewhere in the specification. *See id.* at 2:22-25 (“Advantageously, the method allows to configure any type of [MED] at any given location and within any level of service or group specification without pre-configuring a dedicated address for configuration.”) (emphasis added). It would make little sense for the patentee to use the word “configuration” in connection with this embodiment if it intended—as Xiaomi argues—to exclude the embodiment from the scope of “configuration data.” *See C.R. Bard, Inc. v. United States Surgical Corp.*, 102 F. Supp. 2d 199, 209 (D. Del. 2000) (“Claims should be interpreted consistently with the specification, which provides content for the proper construction of the claims because it explains the nature of the patentee’s invention.”).

Xiaomi’s arguments to the contrary do not hold up. First, it points to an excerpt of the specification it contends is evidence of a clear distinction between “request[s] for configuration data” and “requests for software upgrades or diagnostics.” *Supra* at 32-33 (citing ’772 Patent at 9:29-36). Read in context, however, it is clear that the patent is distinguishing between requests for a specific type of configuration data—namely, “configuration data . . . for a certain level of service”—and other types of configuration data (here, software diagnostics or updates), not between configuration data and other types of information that are not configuration data. *See also*,

33. This is simply another way of stating that a “request for configuration data” does not comprise requests for software upgrades or diagnostics, which is incorrect for the reasons set out above.

e.g., Ex. 1 ('772 Patent) at 1:46-49 (describing “level of services (e.g. premium, best effort)” as one example of a configuration setting for a device).

Second, Xiaomi argues that a “request for configuration data” encompasses only “initial configuration data”—as opposed to “later-provided” software updates and diagnostics—because the patent is directed only to problems involving the provision of data to “first connect the electronic device to the [wide area network]” during “initial set-up.” *Supra* at 32-33. But even a cursory reading of the “Background of the Invention” rebuts Xiaomi’s assertion. For example, it discloses that the patent is related to a system and method for “remote device management,” Ex. 1 ('772 Patent) at 1:16-19 (emphasis added)—not remote device “configuration”—which includes “software management, status and performance monitoring and diagnostics,” all of which may occur after “initial” configuration:

Many CPE devices allow remote management over the wide area network, which relates to auto-configuration and dynamic service provisioning, software management, status and performance monitoring and diagnostics. The DSL Home-Technical Working Group describes in *DSL Forum, TR-069 amendment 1, the CPE WAN management protocol* (November 2006), an end-to-end architecture for remote device management. (Recently, DSL-Forum has been renamed to BroadBand-Forum). In this architecture, a CPE device in a local network connects to an auto-configuration server (ACS) that is capable of providing service level settings for services available to the CPE.

Id. at 1:34-45. Moreover, the problem of identifying the appropriate ACS to send data to an electronic device, without pre-configuring the device with the address of the ACS, applies equally to sending a device “later-provided software updates or . . . diagnostics” as it does to providing so-called “initial” configuration data.

For either reason, Xiaomi’s attempt to limit the claims by arguing against their application to some purportedly unintended purpose is inconsistent with patent law. *See Source Vagabond Sys. Ltd. v. Hydrapak, Inc.*, 753 F.3d 1291, 1301 (Fed. Cir. 2014) (“The district court properly determined that claim construction is a function of the words of the claim not the purpose of the invention.”) (internal quotation marks omitted)). Xiaomi’s cramped and incorrect characterization of the inventions therefore offers no support to limiting “configuration data” to only “initial” set-up data.

Xiaomi’s citation to *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697 (Fed. Cir. 2020), also is off-base. In that case, the defendant pointed to specification disclosures it argued were relevant to one limitation (setting time values on a “periodic” basis). In reality, those disclosures related to a completely distinct claim limitation (methods of setting minimum time values). *See id.* at 708 (“Apple conflates the written description’s disclosures of two different methods of setting minimum values with the separate limitation of setting these values on a periodic basis. In fact, claims 6–9 of the ’345 patent do not capture the “smoothed estimate value” method . . . nor do they need to.”). Here, by contrast, the ’772’s disclosure of requests for software updates and diagnostics relates directly to the scope of “request for configuration data,” as shown above.

In short, the patent and specification demonstrate that the claimed “request for configuration data” may comprise a request for software updates or diagnostics, as expressly disclosed in one embodiment of the patent. Ex. 1 (’772 Patent) at 9:29-44. Xiaomi fails to show otherwise and does not dispute that its proposed construction would exclude this embodiment. *See Inline Connection Corp. v. AOL Time Warner Inc.*, 347 F. Supp. 2d 56, 69 (D. Del. 2004) (rejecting defendants’ argument that preferred embodiments were not covered by a patent’s claimed “high frequency band[s]” and amending construction to avoid excluding the embodiments).

- (ii) Xiaomi’s construction wrongly requires a request for configuration data to include information “identifying” a specific electronic device.

As KPN explained in its opening brief, Xiaomi’s proposed construction would require a “request for configuration data” to “include[] . . . in part information identifying the electronic device,” even though the patent explicitly discloses that requests may include different information, such as information identifying the device’s “manufacturer or supplier.” *Supra* at 31. As written, Xiaomi’s proposal would exclude the embodiment containing these disclosures. *See id.*; Ex. 1 (’772 Patent) at 6:7-9, 9:40-44. That is reason enough to reject it.

Worse, though, in its answering brief, Xiaomi concedes that its proposed construction means something even narrower—giving further cause for the Court to reject that construction.

Xiaomi now asserts that “information identifying the electronic device” actually means information “sufficient to identify the electronic device.” *Supra* at 26 (emphasis added). But those two phrases carry different meanings. As Xiaomi acknowledges, the patent discloses “a request for configuration data that may only include information on the manufacturer or supplier of the manageable electronic device,” *supra* at 33 (emphasis added), *i.e.*, information that does not itself “identify[] the electronic device.” Xiaomi further acknowledges that Claim 1 of the patent requires only “unspecified” information that is “sufficient to identify the electronic device,” which may additionally include, *e.g.*, the “type or function” of the device. *Id.* at 17. Again, such information does not itself “identify[] the electronic device” that transmits the request. In short, Xiaomi admits that—contrary to its proposed construction—a request for configuration data need not include information “identifying the electronic device.”

For this reason, construing a “request for configuration data” to be one that “include[s] . . . in part information identifying the electronic device” would improperly limit the claim term, not to mention mislead the jury. To be clear, KPN believes that “request for configuration data”

requires no construction and has a plain and ordinary meaning, as explained in its opening brief, and Xiaomi's construction should be rejected on that basis alone. *See supra* at 30. But beyond that, the Court should reject Xiaomi's proposed construction of this term because it would impose the unwarranted limitations described above.

d. Defendant Xiaomi's Sur-Reply Position

This claim term should be construed to mean **“request for settings and/or parameters that includes in part information identifying the electronic device.”** Giving the term its plain and ordinary meaning as KPN urges would only confuse the jury.

KPN first argues that Defendants' proposed construction excludes a request for software upgrades or diagnostics from the claim scope. *See* Section V. D. c. (a). That argument is incorrect and a red herring. First, any request for software upgrades or diagnostics would necessarily include “information identifying the electronic device.” If the device did not include information sufficient to identify itself, it would be impossible for the remote system to correctly provide software updates or diagnostics to the device. The patent, when it mentions requests for software updates or diagnostics, makes clear that the electronic device must provide information regarding its identity in order for such request to be satisfied. *See* '772 patent, 9:37-40 (request must include the identification of the supplier and/or the identification of the type of product).

Second, a request for configuration information from the electronic device may also include requests for software updates and diagnostics in addition to a request for configuration data. For example, it would not be unusual for a device to perform a software update when it is first connected to the internet after purchase. Nothing in the claim or Xiaomi's interpretation of this claim element would preclude this request from being covered by the claim, so long as the request also contains a request for configuration data. It is the claims, and not Xiaomi's construction of this claim element, that require the request to include a request for configuration

data. Each claim contains that limitation.

In addition, as explained in Xiaomi's Answering Brief at 13-14 (Section V. D. b), the claims should not be read to cover a request for software updates or diagnostics that do not also contain a request for configuration data. The specification specifically distinguishes provision of configuration data from provision of other information, such as software updates or diagnostics:

It is noted that the present invention is not limited to providing configuration data to a manageable electronic device for a certain level of service, but the present invention may also be used for support provided by manufacturers of electronic equipment over the wide area network. For example, the present invention may be used as a service for networkable consumer electronics to provide software upgrades or diagnostics through a default configuration address....

'772 patent, 9:29-36. It is clear from this excerpt that the patent considered a request for configuration data to be different from requests for software upgrades or diagnostics. The difference is real—configuration data is required to first connect the electronic device to the WAN, whereas software updates and diagnostics are only useful and required after the connection to the WAN has been established.

KPN argues that a request for software upgrades or diagnostics is a “request for configuration data,” citing to various parts of the patent specification. *See* Section V. D. c. However, a proper reading of those parts shows that the only discussion of requests for software upgrades or diagnostics is found in column 9 at the end of the specification. The other discussions cited by KPN relate to initial requests for configuration data. And the discussion in the specification about requests for software updates or diagnostics follows the above-quoted discussion distinguishing requests for configuration data from requests for software upgrades or diagnostics.

KPN's second objection to Xiaomi's proposed construction is that it requires a request for

configuration data to include information “identifying” a specific electronic device, arguing that no such requirement is found in the claims. *See* Section V. D. c. (b). KPN is incorrect. In cases where the request for configuration data includes only information on the manufacturer or supplier of the device, that information is by definition sufficient to identify the electronic device. If that were not the case, the claimed system would not operate properly. The ACSMD must identify the electronic device based on the information supplied by the device in its request for configuration data in order to identify which ACS contains configuration data appropriate for the device. That is a basic requirement for the system to operate properly. Claim 1, for example, requires that the ACSMD “identify the manageable electronic device...” Claims 10 and 15 contain similar requirements for identifying the manageable electronic device. The claims do not address what type of identification information is required, only that the identification information be sufficient to allow the ACSMD to identify the electronic device and select the appropriate ACS so that the correct configuration data can be provided to the electronic device.

In summary, the embodiment KPN argues is omitted by Xiaomi’s proposed claim construction (a request for software updates or diagnostics without a request for configuration data) is not properly covered by the claim, and the request for configuration data must contain information sufficient to identify the electronic device. KPN’s proposal that the claims be given their plain and ordinary meaning results in the claims covering an embodiment not properly covered by the claim and apparently would cover systems in which the request does not contain information sufficient to identify the electronic device requesting configuration data. Such a result is improper and likely to confuse the jury.

E. “a portion of the request” (Claim 1)

a. Plaintiff’s Opening Position

As a threshold matter, this term does not require construction as its meaning is clear. *See Phillips*, 415 F.3d at 1314; *Bridgestone Americas Tire Operations, LLC v. Schrader-Bridgeport Int'l, Inc.*, 2015 WL 13529549, at *2 & n.6 (D. Del. Jan. 5, 2015) (giving the terms “the last stored” and “the most recently stored” their plain and ordinary meaning because that meaning was “apparent even to a lay audience”). That alone is sufficient to reject Xiaomi’s proposal.

Xiaomi’s proposed construction also is wrong for the same reason its “request for configuration data” construction is wrong: it presupposes that a request for configuration data from a manageable electronic device must include “information identifying the ... device.” As explained above, the claims do not require such a request to include information identifying the sending device; in fact, one of the disclosed embodiments teaches a request for configuration data that does not include such information. *See supra* at 31; Ex. 1 at 6:3-9 (disclosing a request that “comprise[s] information on the manufacturer or supplier of” the device); *id.* at 9:29-49. For this reason, the Court should reject Xiaomi’s construction.

In addition, the construction should be rejected for the independent reason that it runs afoul of basic claim differentiation principles. *Zimmer Surgical, Inc. v. Stryker Corp.*, 2018 WL 3038515, at *13 (D. Del. June 19, 2018) (“The doctrine of claim differentiation provides that ‘different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scopes.’” (citation omitted)). Claim 1 and Claim 3—which is dependent on Claim 1—each recite identifying a manageable electronic device using information contained in a request for configuration data sent by that MED to the ACSMD:

Claim 1	[ACSMD is configured to] identify the [MED] by comparing . . . <u>at least a portion of the request [for configuration data]</u> with the information for the identification of electronic devices of the at least one database;
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Claim 3	[ACSM is configured to] identify the type of the [MED] by comparing . . . <u>a network address of the manageable electronic device in the request [for configuration data]</u> with a predetermined plurality of network addresses in the at least one database.
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As the side-by-side comparison shows, Claim 3 explicitly recites using “a network address of the [MED]” contained in the request for configuration data—in Xiaomi’s words, “information identifying the electronic device”—while Claim 1 recites only using “a portion of the request.” This distinction matters. Simply put, where the claims intend to require that an ACSMD use “information identifying the electronic device” to perform an identifying step, they say so. The Court thus should reject Xiaomi’s attempt to read this type of limitation into Claim 1.

b. Defendant Xiaomi’s Answering Position

This claim element relates to how the system identifies the manageable electronic device.

To put the claim term into context, the entire claim term in claim 1 reads as follows:

...at least one database communicatively coupled to the ACSM and storing information for the identification of electronic devices...

*...identify the manageable electronic device by comparing at least **a portion of the request** with the information for the identification of electronic devices of the at least one database....*

Defendants submit that that claim phrase is properly construed to mean “**the portion that includes the information identifying the electronic device.**” KPN argues that the phrase needs no construction and should be given its plain and ordinary meaning.

KPN’s argument fails because the plain and ordinary meaning does not provide any information about what is in the relevant portion of the request, despite the fact that in the context of the claim as a whole, we know it must contain information used to identify the electronic device. *Phillips*, 415 F.3d at 1313 (“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears,

but in the context of the entire patent, including the specification.”). Defendants’ proposed construction does provide that information—the portion which includes the information identifying the electronic device.

KPN first argues that Defendants’ proposed construction is wrong for the same reason Defendants’ construction of “request for configuration data” is purportedly wrong. *See* Section V. E. a But as demonstrated above, it was KPN’s construction of that term that was erroneous, and not Defendants’. For the system to operate properly, the request for configuration data must include sufficient information to identify the electronic device, otherwise it would not receive the correct configuration data from the appropriate ACS in response to its request for configuration data.

KPN next argues that claim differentiation requires that Defendants’ proposed construction be held incorrect. *Id.* However, the doctrine “does not serve to broaden claims beyond their meaning in light of the specification.” *Level Sleep LLC v. Sleep No. Corp.*, No. 2020-1718, 2021 WL 2934816, at *5 (Fed. Cir. July 13, 2021). KPN argues that because claim 3, which depends from claim 1, specifies that the network address of the manageable electronic device is provided in the request it would be improper to adopt Defendants’ proposed construction.

KPN’s argument is confusing, incorrect, and overlooks facts clearly provided in the patent. As an initial matter, claim 3 is directed to identifying the “type” of the manageable electronic device, not identifying the device itself. Even if claim 3 is meant to provide a specific example of what may be used to *identify the manageable electronic device*, the system may use the network address of the electronic device as one way to establish its identity but clearly need not do so. As KPN pointed out in its brief, Section V. E. a., the identifying of the electronic device may be established by any or all of its network address, information on the type or function of the device,

or even the manufacturer or supplier of the device. '772 Patent, 6:3-9. Thus claim 3 is narrower than claim 1 because it specifies only one method of identifying the electronic device, whereas claim 1 more broadly requires information, unspecified, for identifying the electronic device. Claim 1 covers use of information sufficient to identify the electronic device, and claim 3 covers only use of the network address to identify the electronic device. There is nothing improper or unusual in a dependent claim defining more narrowly a feature defined more broadly in an independent claim from which it depends.

In summary, KPN's arguments miss their mark. The claim term as written does not specify which portion of the request for configuration data is compared with information from the database. A construction of plain and ordinary meaning does not provide guidance on that point. Defendants' proposed construction cures that shortcoming by clarifying that the portion of the request that includes information identifying the electronic device is compared to the information found in the database. Thus, the claim term "a portion of the request" should be construed as **"the portion that includes the information identifying the electronic device."**

c. Plaintiff's Reply Position

Xiaomi argues that the phrase "a portion of the request" lacks a plain and ordinary meaning because it "does not provide any information about what is in the relevant portion of the request." *Supra* at 46. But that is a non sequitur. Xiaomi does not dispute that the word "portion" has a plain and understandable meaning or that "the request" refers to the "request for configuration data" recited earlier in the claim. Taken together, it is clear that "a portion of the request" means exactly what it says—a portion (that is, a part of) the request for configuration data. Both a POSITA and a jury would understand that.

Further, they would understand that, to infringe Claim 1 of the patent, an accused instrumentality must be configured to identify an MED by comparing "at least" a portion of the

request for configuration data with the information stored in a database. Ex. 1 ('772 Patent) at 10:1-4. Because the claim is “readily understandable by a jury” and “ascertainable by simply reading the claim language,” it requires no construction. *Int’l Bus. Machines Corp. v. Priceline Grp. Inc.*, No. CV 15-137-LPS, 2016 WL 6405824, at *10 (D. Del. Oct. 28, 2016). On this basis alone, the Court should reject Xiaomi’s proposed construction.

In reality, Xiaomi seems to be making an argument about infringement, not claim construction. Xiaomi states that “in the context of the claim as a whole, we know it [the request for configuration data] must contain information used to identify the electronic device.” *Supra* at 46; *see also* Ex. 1 ('772 Patent) at 9:66-10:4 (reciting an ACSMD configured to “identify the [MED] by comparing at least a portion of the request [for configuration data] with the information for the identification of electronic devices of the at least one database.”). But that assertion has nothing to do with the meaning of the term “a portion of the request.” Rather, it simply summarizes Xiaomi’s view on what the “request for configuration data” must include in order for an accused product to infringe Claim 1. Such infringement arguments are not relevant or appropriate at claim construction.⁷

Xiaomi’s remaining arguments fall flat. First, its response to KPN’s claim differentiation argument misses the point. *See supra* at 46-47. Put simply, where the claims intend to recite a request that “includes . . . information identifying the electronic device”—Xiaomi’s proposed construction—they do so.

⁷ *See AgroFresh Inc. v. Hazel Techs., Inc.*, 2020 WL 509161, at *3 (D. Del. Jan. 31, 2020) (declining to construe “molecular encapsulation agent” in a manner that would “exclude all adsorptive carriers,” because the question whether a particular compound fits within the definition in the specification “is an issue of infringement, not claim construction”).

For example, dependent Claim 3 recites identifying the type of MED by using “a network address of the [MED] in the request” (Ex. 1 (’772 Patent) at 10:15-20)—that is, information in the request which specifically and individually “identif[ies] the electronic device.” By contrast, Claim 1 does not recite a request that includes such information; it simply discloses a “request”:

Claim 1	[ACSMD is configured to] identify the [MED] by comparing . . . <u>at least a portion of the request [for configuration data]</u> with the information for the identification of electronic devices of the at least one database;
Claim 3	[ACSMD is configured to] identify the type of the [MED] by comparing . . . <u>a network address of the manageable electronic device in the request [for configuration data]</u> with a predetermined plurality of network addresses in the at least one database.

Id. at 10:1-4, 10:14-20. If the patentee wanted to specify in Claim 1 that the ACSMD would be configured to identify the MED using specific information that “identif[ies] the electronic device,” Claim 3 thus shows that it would have done so. *See Trimr, LLC v. Perfectshaker, Inc.*, No. CV 18-1640 (MN), 2019 WL 5558371, at *2 (D. Del. Oct. 28, 2019) (“The applicants knew how to claim a straw when they chose — and in fact did so during prosecution and in a dependent claim. Claim 10 depends on claim 1 with one addition — that the ‘substantially vertical member is a straw.’ This brings into play the doctrine of claim differentiation[.]”). Xiaomi’s acknowledgement that Claim 3 “defin[es] more narrowly a feature defined more broadly in” Claim 1, *supra* at 47, simply confirms that the claims have different scopes and that Xiaomi’s proposed limitation cannot be read into Claim 1.

Likewise, Xiaomi doubles down on its position that the request for configuration data must “include[] . . . information identifying the electronic device.” *Supra* at 46-47. But as explained above, the claims require no such thing.⁸ *See supra* at 40-41.

In sum, Xiaomi fails to show “a portion of the request” has anything but its plain and straightforward meaning. It faults the claim language for not incorporating additional limitations. But these limitations are unnecessary for a jury to understand the term and, moreover, have no basis in the patent or specification. For those reasons, the Court should reject Xiaomi’s proposed construction and give this term its plain and ordinary meaning

d. Defendant Xiaomi’s Sur-Reply Position

KPN continues to incorrectly argue that claim differentiation requires that Xiaomi’s proposed construction be held incorrect. *See* Section V. E. c. Claim 1 requires the ACSMD **identify** the electronic device by comparing a least a portion of the request for configuration data with information stored in a database, while claim 3 requires that the ACSMD **identify the type of device** by comparing be a network address of the electronic device contained in the request for configuration data with information stored in a database. Thus claim 1 is not properly limited to only systems which use the network address of the electronic device for identification. But claim 1 does require that a portion of the request for configuration data include information identifying the electronic device. Specifically, claim 1 requires that the ACSMD is (1) configured to identify the electronic device by (2) comparing a portion of the request with (3) information in a database. Under claim 1, not only the network address, but other characteristics of the electronic device contained in the request for configuration data may be used to provide its identity to the ACSMD.

⁸ Xiaomi again appears to concede this fact by watering down its proposed construction. *See supra* at 46 (stating that “the request for configuration data must include sufficient information to identify the electronic device”) (emphasis added).

In summary, the claim term as written does not specify which portion of the request for configuration data is compared with information from the database. A construction of plain and ordinary meaning does not provide guidance on that point. Xiaomi's proposed construction cures that shortcoming by clarifying that the portion of the request that includes information identifying the electronic device is compared to the information found in the database.

F. “wherein the ACSMD is further configured to relay the request to the identified ACS” (Claim 1)

a. Plaintiff's Opening Position

This straightforward term does not require construction. But if the Court does construe it, the Court should reject Xiaomi's unnecessary and inaccurate attempt to paraphrase the surrounding claim language. *See Am. Pat. Dev., Corp. v. Movielink, LLC*, 604 F. Supp. 2d 704, 716 (D. Del. 2009) (rejecting construction that was “merely a verbose paraphrasing of the claim language that otherwise offers little to assist one of skill in the art in understanding the claims”).

First, Xiaomi proposes to substitute for “the request” the phrase “the request for configuration data received from the electronic device.” This addition is pointless. There is only one “request” in Claim 1—the one sent from the manageable electronic device to the ACSMD. *See* Ex. 1 at 6:62-63 (“wherein the manageable electronic device is configured to send a request for configuration to the ACSMD”); *id.* at 9:67, 10:2, 10:9-10 (referring back to “the request”) (emphasis added). The claim makes perfectly clear what “the request” means, and there is no need to re-incorporate this additional language for the term to be understandable to a jury.

Second, Xiaomi requests that the Court construe “the identified ACS” to mean “a specific ACS based on the identity of the electronic device and the information regarding the ACSs contained in the database.” Again, this gloss is unnecessary: the lines preceding this term recite how the ACSMD “identif[ies] an ACS,” *i.e.*, what “the identified ACS” means:

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identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and
 identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, and
 wherein the ACSMD is further configured to relay the request to the identified ACS.

Even worse, Xiaomi’s recycling of the surrounding claim language is confusing and inaccurate. The only “database” recited in claim 1 is the “at least one database . . . storing information for the identification of electronic devices,” Ex. 1 at 9:59-61 (emphasis added). Confusingly, Xiaomi proposes to include “the information regarding the ACSs” contained in the database.” But which information is not specified; there is no antecedent to “information,” and its reference to a database including information about ACSs (not electronic devices) is puzzling. Because Xiaomi’s formulation misconstrues the claims and would serve only to confuse the jury, it should be rejected. *See Varentec, Inc. v. Gridco, Inc.*, 2017 WL 3731243, at *8 (D. Del. Aug. 30, 2017) (rejecting “proposed clarification [that] would not be helpful as it is inaccurate”).⁹

At bottom, this term does not require construction. The Court should reject Xiaomi’s incorrect paraphrasing of the surrounding claim terms, which will only confuse and mislead the jury. *See Roche Diagnostics Operations, Inc. v. Abbott Diabetes Care*, 667 F. Supp. 2d 429, 440 (D. Del. 2009), *aff’d*, 452 F. App’x 989 (Fed. Cir. 2012) (rejecting “proposed construction [that] simply paraphrase[d]” a claim limitation “but otherwise offer[ed] no insight as to the meaning of this term to one of skill in the art” and finding no construction was needed).¹⁰

⁹ There are other problems with Xiaomi’s construction, including replacing “is . . . configured” with “must be configured” only in this instance, and without explanation; and substituting “a specific ACS” for “the identified ACS,” which creates antecedent basis issues in light of the claim’s previous reference to “an ACS.” *See* Ex. 1 at 10:5.

¹⁰ To the extent it construes the term, the Court should at most construe “relay” to mean “send.”

b. Defendant Xiaomi's Answering Position

This claim phrase is confusing and will likely confuse the jury absent a construction. It is unclear which request is relayed and how the appropriate destination ACS is identified. Defendants' proposed construction eliminates the confusion by identifying that "the request" refers to the request for configuration data received from the electronic device. KPN argues that there is only one request, but ignores that that request is first provided from the electronic device to the ACSMD, which then provides the request to the appropriate ACS. Defendants' proposed construction clarifies that the request identified originates in the electronic device and is provided to the ACSMD, which then relays the request.

In addition, Defendants' proposed construction clarifies that the ACSMD must be configured to relay the request from the electronic device to a specific ACS based on the identity of the electronic device and the information regarding the ACSs contained in the database. KPN argues that this is puzzling because of its reference to a database including information about the ACSs. *See* Section V. F. a. Defendants agree that the claim term is puzzling, but Defendants submit that the puzzlement is caused by a lack of clarity in the claim language, thus requiring its construction.

The specification makes it clear that the database contains information about the ACSs. As described in the specification at 6:35-51, the ACSMD 25 determines the appropriate ACS based on information contained in the request from the electronic device by referring to a database 28. That database is said to contain information that associates the specific electronic device with a specific ACS. This is illustrated in Fig. 3(a) as step 105. As discussed earlier, the ACSMD must refer to a database which has information on both the electronic device and the individual ACS. Both sets of information are required in order to match the electronic device with the appropriate ACS. If the database had no information regarding the ACSs, the system would not be able to

select the appropriate ACS to receive the request for configuration data. Thus, Defendants' proposed construction clarifies which request is relayed, the destination to which the request is relayed, and the information regarding ACSs which determines the relay destination.

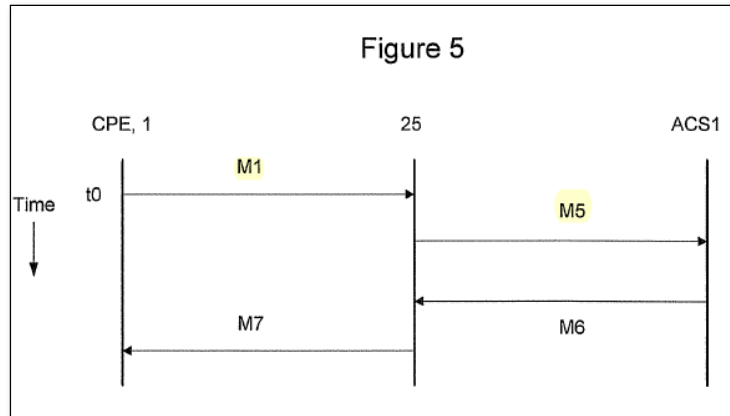
Defendants' proposed construction is true to the patent's disclosure and prevents the claim term from creating confusion for the jury. Thus, the phrase should be construed as **“the ACSMD must be configured to relay the request for configuration data received from the electronic device to a specific ACS based on the identity of the electronic device and the information regarding the ACSs contained in the database.”**

c. Plaintiff's Reply Position

In its opposition brief, Xiaomi fails to provide any justification for the unneeded and misleading paraphrasing provided by its proposed construction. In fact, Xiaomi's responses simply underscore that no construction is necessary for this term.

As KPN explained, there is no need to construe “the request” as “the request for configuration data received from the electronic device.” There is only one “request” recited in Claim 1, and the claim makes clear that that it is the “request for configuration data” from the electronic device. *See supra* at 51-52. Notwithstanding that, Xiaomi responds that it will “confuse the jury” that the request is transmitted two times in the claimed inventions. *Supra* at 53.

Xiaomi appears to take a dim view of the jury's abilities. At most, the “confusing” process Xiaomi identifies is a two-step transmission: once from the device to the ACSMD, and again from the ACSMD to the ACS. The figure below depicts this straightforward sequence of transmitting the request at issue. In the figure, the “CPE” is the manageable electronic device. At time t0 it sends a message M1 comprising a request for configuration data to the ACSMD 25. At a later time, the ACSMD 25 relays a message M5, which comprises at least the same request for configuration data, to the ACS1. Ex. 1 ('772 Patent) at 7:53-8:14.



It is no more complicated than that—the message is passed from one device to another and, later, to a third. Accordingly, the jury is not likely to be confused by “the request” recited in Claim 1, and the Court should decline to superimpose Xiaomi’s unnecessary gloss on those words. *See Roche Diagnostics Operations, Inc. v. Abbott Diabetes Care*, 667 F. Supp. 2d 429, 440 (D. Del. 2009), *aff’d*, 452 F. App’x 989 (Fed. Cir. 2012) (rejecting “proposed construction [that] simply paraphrase[d]” a claim limitation “but otherwise offer[ed] no insight as to the meaning of this term to one of skill in the art” and finding no construction was needed); *id.* at 441 (rejecting construction that “appears to be nothing more than an unnecessary paraphrasing of the ordinary word ‘determine’” and therefore “requires no additional construction”).

Similarly, Xiaomi asserts—with no attempt at substantiation—that it is “unclear” what “the identified ACS” means because the claim supposedly does not disclose “how the appropriate destination ACS is identified.” *Supra* at 53. Xiaomi is wrong. As KPN pointed out in its opening brief, the claim language immediately preceding this claim term explains how the ACSMD “identif[ies] an ACS,” *i.e.*, what “the identified ACS” means:

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identify the manageable electronic device by comparing at least a portion of the request with the information for the identification of electronic devices of the at least one database, and
 identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide configuration data to the manageable electronic device, and
 wherein the ACSMD is further configured to relay the request to the identified ACS.

'772 Patent at 10:5-8; *see also supra* at 52. As the claim discloses, the ACSMD is configured to (step 1) identify an MED by comparing a portion of a request for configuration data from the MED with information in a database; and (step 2) in accordance with the identification of the MED in the previous step, identify a particular ACS. For that reason, it is not “unclear” what “the identified ACS” means; it is the ACS identified as claimed. No construction is required. *See Roche Diagnostics Operations, Inc.*, 667 F. Supp. 2d at 440, 441.

Even if the Court determines that some construction is needed, it should not adopt Xiaomi’s confused, verbose characterization of “the identified ACS.” Xiaomi’s attempt to clarify its reference to a “database” containing “information regarding the ACSs” simply highlights the various ways that its construction would make matters worse, not better, for the jury.

Xiaomi now appears to contend there is a single database that contains information associating specific electronic devices with specific ACSs. *See supra* at 54 (“The specification makes it clear that the database contains information about the ACSs. . . . That database is said to contain information that associates the specific electronic device with a specific ACS.”) (emphasis added). That is wrong.

The same portion of the specification cited by Xiaomi teaches multiple databases. *See* Patent at 6:10-15, 6:29-43 (reciting a “first database **26**,” “second database **27**,” and “third database

28,” the last of which “comprises information that associates the IP address of the dedicated [ACS] with at least one of the identity of the service provider ISPID and the IP address of the [MED]”); *id.* at fig. 2 & 5:15-21 (depicting “databases 26, 27, 28,” which “may be located in one or more databases servers, which may be located remotely from one another”). And the claims themselves recite “at least one database communicatively coupled to the ACSM.” *Id.* at 9:59-61 (Claim 1). For this reason, Xiaomi’s inaccurate construction should be rejected.

Notably, Xiaomi fails to address the multiple other defects in its proposed construction that KPN identified. *See supra* at 52-53. For example, Xiaomi creates a welter of antecedent basis issues: it would replace “the identified ACS”—which refers back specifically to the “an ACS” recited at 10:5-8—with “a specific ACS,” thereby eliminating the necessary logical and grammatical relationship between them.¹¹ In addition, Xiaomi proposes a number of unexplained substitutions: “must be configured” instead of “is configured”; “electronic device” instead of “manageable electronic device”; and “based on the identity of the electronic device” instead of “in accordance with the identification of the manageable electronic device.” As this demonstrates, even if this term required construction—and it does not—Xiaomi’s proposal would introduce random errors into KPN’s patent and gratuitously revise the claim language. The Court should decline to do so.

d. Defendant Xiaomi’s Sur-Reply Position

KPN argues that there is only one request, and that it is first provided from the electronic device to the ACSMD, which then provides the request to the appropriate ACS. *See* Section V. F. c. Xiaomi’s proposed construction clarifies that the request identified originates in the electronic device and is provided to the ACSMD, which then relays the request to an identified ACS. This

¹¹ Likewise, its proposed construction refers to “the information regarding the ACSs contained in the database,” but there is no antecedent for “the information regarding the ACSs.”

is true to the meaning of the claim language and results in less potential confusion for the jury.

KPN argues that Xiaomi was incorrect in its description of the database used to associate specific electronic devices with specific ACSs. *See* Section V. F. c. This is based on misreading of Xiaomi's brief and the patent's specification. The fact that other databases are referred to in the patent specification does not mean that Xiaomi's argument was incorrect.

The database Xiaomi was addressing contains information about the ACSs and is used to associate a particular electronic device with a particular ACS. This process is described in the specification. '772 patent, 6:35-51. As explained there, the ACSMD 25 determines the appropriate ACS based on information contained in the request from the electronic device by referring to a database (database 28). That database is said to contain information that associates the specific electronic device with a specific ACS. This is illustrated in Fig. 3(a) as step 105. The ACSMD must refer to a database which has information on both the electronic device and the individual ACS. Both sets of information are required to match the electronic device with the appropriate ACS. If the database had no information regarding the ACSs, the system would not be able to select the appropriate ACS to receive the request for configuration data. Thus, Xiaomi's proposed construction clarifies which request is relayed, the destination to which the request is relayed, and the information regarding ACSs which determines the relay destination.

Finally, KPN addresses a number of supposed antecedent basis problems with Xiaomi's proposed construction. *See* Section V. F. c. Some of the issues it raises may have merit,¹² but for

¹² Xiaomi is willing to make the following changes to its proposed construction in light of KPN's criticisms: "the ACSMD ~~must be~~ is configured to relay the request for configuration data received from the manageable electronic device to a specific ACS based on the identity of the manageable electronic device and the information regarding the ACSs contained in the database."

many of the supposed issues, KPN is just seeking to revert to the original claim language, which is the language Xiaomi is seeking to clarify with its proposed construction

Dated: June 10, 2022

Respectfully submitted,

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