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**BY E-MAIL**

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Re: Vasu Holdings LLC v. Samsung Electronics Co., Ltd. et al (E.D. Tex. No. 2:24-cv-00034-JRG-RSP)

Dear Carlos:

I write on behalf of Defendant Samsung as a follow up to Vasu's August 30, 2024 Disclosure of Asserted Claims and Supplemental Preliminary Infringement Contentions ("Supplemental Infringement Contentions") and in response to your July 11, 2024 letter ("7/11/24 Letter"). The Supplemental Infringement Contentions fail to comply with the Discovery Order in this case and fail to address all of the deficiencies identified in Samsung's June 25, 2024 letter.

Moreover, Vasu's Supplemental Infringement Contentions do not provide the specificity required under the Local Patent Rules and the Discovery Order. Vasu had 30 days to supplement its infringement contentions after Samsung produced code, of which Vasu spent 16 days reviewing Samsung's source code. Despite this, Vasu's Supplemental Infringement Contentions provide only a cursory reference to source code files.<sup>1</sup>

**Vasu's Infringement Contentions Fail to Chart "Each" Accused Instrumentality and Improperly Includes Newly Accused Products**

As noted in our June 25, 2024, letter, the local rules require infringement contentions to include "[a] chart identifying specifically where each element of each asserted claim is found within each Accused Instrumentality." Local Patent Rules 3-1(c). Vasu's Supplemental Infringement Contentions continue to fail to meet this requirement by providing single charts for groups of products, which continues to

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<sup>1</sup> Because the parties appear to be in agreement that the '434 and '605 patents will be dismissed from the suit, this letter does not address in detail the deficiencies relating to those patents, even though many similar deficiencies exist for those patents. Samsung reserves all rights with respect to these patents if these patents ultimately do not get dismissed from the case.

include multiple disparate models, now adding 64 newly accused products, and rely on a representative product without sufficient explanation or supporting evidence. See A-1 through F-4.<sup>2</sup>

As we've previously noted, for Vasu to rely on its exemplary claim charts, it "must provide an explanation of the technical and functional identity of the products represented" and "must also compare each exemplar product to each asserted patent on a claim by claim, element by element basis." *UltimatePointer, LLC v. Nintendo Co.*, No. 6:11-cv-496, 2013 WL 12140173, at \*3 (E.D. Tex. May 28, 2013) (granting Defendants motion to enforce Rule 3-1 and ordering Plaintiff to supplement its infringement contentions); *see also Alacritech Inc. v. Century Link, Inc.*, No. 2:16-cv-00693-JRG-RSP, 2017 WL 3007464, at \*4 (E.D. Tex. Jul. 14, 2017) (ordering Plaintiff to explain "with specificity and supporting documentary or declaratory evidence, its assertions there are no material differences between the accused instrumentalities that affect its infringement theories for the uncharted products."). Broad conclusory allegations that the products are similar do not allow plaintiffs to circumvent the Local Rules, and it is only possible for plaintiffs to use a single chart for multiple products, "if separate charts would be *identical* for each product." *UltimatePointer*, 2013 WL 12140173, at \*3 (emphasis in original).

Vasu has continued to fail to explain "with specificity and supporting documentary or declaratory evidence" why the particular products it charted are representative. Vasu's footnote in the Appendices stating that "Galaxy phones and tablets are similar products operating on similar systems" and similarly general statements that "all the accused instrumentalities meet the language of the claims in the same way" and "these technologies were included in the earlier products and are based on the same underlying technology" (7/11/24 Letter at 1) are broad conclusory allegations that continue to fall short of the Court's requirement that Vasu "provide an explanation of the technical and functional identity of the products represented" when using exemplary claim charts. Indeed, "a chart which purports to have identical application to [multiple accused products] does not identify with specificity which aspects of each accused instrumentality meet the claim elements asserted by [plaintiff]." *National Oil Well Varco, L.P. v. Auto-Dril, Inc.*, No. 5:09-CV-85 (E.D. Tex. Dec. 2, 2010), Order at 4.

Vasu incorrectly asserts that it properly included Galaxy Tab devices in its Infringement Contentions because "versions of the accused Galaxy Tab devices do support cellular functionality," and "[a]s such, the cellular versions of the tablets infringe the Asserted Patents as outlined in Vasu's Pre-Discovery ICs." 7/11/24 Letter at 2. While this explanation would be sufficient for this particular Galaxy Tab distinction if only the cellular versions of products were being accused, Vasu's Infringement Contentions are not limited to the products that support cellular, but instead indiscriminately accuse all Galaxy Tab versions, without regard for whether they support cellular functionality. Vasu also incorrectly asserts that it was proper to include the non-cellular products in the claim charts because "of their inclusion in their Adaptive Wi-Fi technology." *Id.* It is indisputable

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<sup>2</sup> All citations to appendices throughout this letter refer to appendices to Vasu's Supplemental Infringement Contentions.

that a basis for alleged infringement in each claim chart is the products' support of cellular technology, and that this is not representative of the Galaxy Tab products that do not support cellular functionality. If Vasu intends to accuse the non-cellular Galaxy Tab products of infringement, it must serve claim charts that delineate the specific functionality of those products that infringe.

Moreover, Vasu's contentions rely on functionality that is not available in all Android versions. For example, Vasu relies on functionality from "Android Wi-Fi Network Selection," which Vasu cites to VASU 025102. *See, e.g.*, E-1 at 93-94. But even though Android Wi-Fi Network Selection first became available for Android 12 (VASU 025102), Vasu makes no attempt to limit the accused products for which it relies on this functionality to products that support Android 12, and instead accused every Galaxy product based on this non-representative functionality. Vasu must separately chart the products that support Android 12 and either drop the remaining products or separately chart these products. *See UltimatePointer*, 2013 WL 12140173, at \*3 (noting how single charts may be used for multiple products, "if separate charts would be identical for each product"); *cf. Computer Acceleration Corp. v. Microsoft Corp.*, 503 F.Supp.2d 819, 823 (E.D. Tex. 2007) (striking plaintiff's infringement contentions against Vista because plaintiff had only charted the Windows XP product and it was undisputed that Vista and Windows XP are only seventy percent similar).

Similarly, the Switch to Mobile data, Intelligent WiFi and Call & Text on other devices features were first available in Android 9, and Switch to Better WiFi was first available in Android 13, but Vasu's contentions do not attempt to delineate between the products that do and do not support these functionalities. Vasu's contentions mix these various functionalities in its contentions, and it is not Samsung's responsibility to try to figure out which products Vasu is contending meets a limitation based on alleged support for certain functionality, and for which products Vasu is relying on different functionality. Vasu must provide claim charts that delineate between the products according to their actual supported functionality so that Samsung can understand what is alleged for each accused product.

Vasu's addition of source code in its Supplemental Infringement Contentions highlights this point. Vasu relies on source code that is specific to certain versions of Android that Vasu makes no attempt to show were applicable to all charted products. For example, Vasu relies on source code for Android 13 and 14 for the Switch to Better Wi-Fi functionality, which is not applicable to any of the products (for example, the Galaxy S4) that do not support these versions of Android. *See, e.g.*, B-1 at 1, 37. Vasu's must supplement its contentions to limit each claim chart to those products for which representative source code is applicable.

Moreover, Vasu has selected the Galaxy S22 phone device as the "representative Accused Product" for every claim chart for the '181, '154, '281, and '996 patents (*see, e.g.*, Appendices B-1 at 2, 83, 97; D-1 at 2, 81, 94; E-1 at 2, 3, 33, 38, 116, 120, 300, 304, 385; F-1 at 2, 3, 40, 44, 105, 110, 167, 171, 262, 276). Despite this, the Galaxy S22 phone device was excluded from the lists of the sets of products defined as "Accused Products" in Appendices B-2, B-3, B-4, D-2, D-3, D-4, E-2, E-3, E-4, F-2, F-3, and F-4. This inconsistency belies Vasu's contention that it "showed in its claim charts how

the accused products share the same, or substantially the same, infringing features with any other product or the representative product.” 7/11/24 Letter at 1-2. Despite its assertions, Vasu has failed to provide sufficient explanation for why the Galaxy S22 is representative of all the Accused Products identified in its Infringement Contentions.

Further, Vasu’s Supplemental Infringement Contentions for the ’181, ’154, ’281, and ’996 patents improperly seek to add nearly 65 newly accused products, including at least the following 64 Galaxy products, that were not previously named in Vasu’s initial infringement contentions.

- Galaxy A Series (“A Series”): A01, A01 Core, A02, A03 Core, A10, A20s, A21s, A22, A22 5G, A30, A30s, A31, A32, A32 5G, A41, A42 5G, A50, A52, A52s 5G, A71, A72, A80, A82 5G, A90 5G
- Galaxy Note Series (“Note”): Note 3, Note 4, Note 10 Lite, Note 20, Note 20 Ultra
- Galaxy S Series (“S Series”): S4 Active, S4 Mini, S20 5G UW, S20 Ultra, S20 FE, S21, S21+, S21 Ultra, S21 FE, S22 5G, S23 FE, S23 5G,
- Galaxy Z Series (“Z Series”): Z Fold 5G, Z Fold2, Z Fold3, Z Fold6, Z Flip6
- Galaxy XCover Series (“XCover”): XCover, XCover Pro 2, XCover 4s
- Galaxy J Series (“J Series”): J2 Dash, J3 Achieve, J3 Star, J3 Aurora, J3 Top, J7 Top, J7 Pop, J7 Refine
- Galaxy Tab S Series (“Tab S”): Tab S5e, Tab S6, Tab S6 5G
- Galaxy Tab A Series (“Tab A”): Tab A10.1, Tab A7, Tab A8
- Galaxy Tab E Series (“Tab E”): Tab E9.6

The Discovery Order requires Vasu to identify “on an element-by-element basis for each asserted claim” how source code allegedly satisfies the claim element and supplement on that basis alone; it does not permit Vasu to identify additional products. Dkt. No. 29, ¶3(a)(i). Please confirm that Vasu will further revise its proposed supplementation to delete these newly accused Galaxy products as Accused Products.

#### Vasu’s Infringement Contentions Fail to Identify the Source Code of “Each” Accused Instrumentality

In addition to the local rules requiring infringement contentions to include “[a] chart *identifying specifically where each element of each asserted claim is found* within each Accused Instrumentality” (Local Patent Rule 3-1(c)), the Discovery Order requires that “[i]f a party claiming patent infringement asserts that a claim element is a software limitation, . . . the party claiming patent infringement shall identify, on an element-by-element basis for each asserted claim, what *source code* of each Accused Instrumentality allegedly satisfies the software limitations of the asserted claim elements.” Dkt. No. 29 ¶3(a)(i).

Vasu’s Supplemental Infringement Contentions, however, do not comport with these requirements. The Supplemental Infringement Contention merely dump hundreds of source code file names, offer a brief statement of function, and largely repeat the claim language without pointing specifically to where each element and steps for each asserted claim is found. Indeed, Vasu makes no attempt to correspond the claim language to the contents of the cited source code files.

For example, for asserted claim 1 of the ’181 Patent, there are at least three steps disclosed in element 1[c]: a “signal strength drop[ping]” below a threshold, “notif[ication of] an interface server,” and “establishing a second communication link.” Vasu’s Supplemental Infringement Contentions do not specifically identify where these steps are allegedly found in the source code, but instead merely repeats the claim language and then proceeds to list hundreds of source code file names without specifically identifying where each step is found within each of the files. See, e.g., Appendix B-1 at 65-82, also excerpted in part below:

U.S. Pat. No. 8,886,181	Infringement
<p>1[c].</p> <p>when the signal strength drops below a predetermined threshold, notifying an interface server with the mobile communication device and establishing a second communication link between the interface server and the end destination device without disrupting the first communication link;</p>	<p>...</p> <p><b><u>SOURCE CODE SUPPLEMENTATION</u></b></p> <p>As described above, this element’s functions may be performed through software in the Accused Products. The source code relating to the below software features when the signal strength drops below a predetermined threshold, the Accused Products notify an interface server with the mobile communication device and establish a second communication link between the interface server and the UE without disrupting the first communication link.</p> <p><u>Wi-Fi Calling</u></p> <ul style="list-style-type: none"> <li>• [REDACTED]</li> <li>• [REDACTED]</li> </ul>

While the excerpt identifies two entries in the list of source code files, the list includes more than 200 files (and is not even limited to those files, as Vasu refers to folders “including” those files, such that it appears that Vasu is attempting to point to potentially thousands of files). Samsung is unable to discern any information about what functionality Vasu is contending practices any claim limitations from this extensive list.

As another example, for asserted claim 1 of the '996 Patent, there are at least four steps disclosed in element 1[a], as highlighted in the four different colors below. Again, Vasu's Supplemental Infringement Contentions do not specifically identify where these steps are allegedly found in the source code, but instead merely repeats the claim language and then proceeds to list 235 different source code file names without specifically identifying where each step is found. See, e.g., Appendix F-1 at 46-63, also excerpted in part below:

U.S. Pat. No. 10,419,996	Infringement
<p>1[a].</p> <p>a switching system to switch operation between a first communication module and a second communication module, wherein if a context changes for known networks or a new network is detected with a more favorable context, a previously established communication automatically switches accordingly, wherein upon activation of a timer, the switching system causes the second communication module to change state from a sleep mode to a stand-by mode, and the switching system causes the second communication module to change state from the stand-by mode to an active mode before a communication is switched to the second communication module;</p>	<p>...</p> <p><b><u>SOURCE CODE SUPPLEMENTATION</u></b></p> <p>As described above, this element's functions may be performed through software in the Accused Products. The source code relating to the below software features provide a switching system to switch operation between a first communication module and a second communication module if a known network or a new network is preferred. A previously established communication automatically switches between the networks upon activation of a timer to cause the second communication module to change state from a sleep mode to a stand-by mode and from the stand-by mode to an active mode before switching the modules.</p> <p><u>Wi-Fi Calling</u></p> <ul style="list-style-type: none"> <li>• [REDACTED]</li> <li>• [REDACTED]</li> <li>• [REDACTED]</li> </ul>

Again, while this excerpt identifies three files, the full listing in Vasu's contentions identify more than 200 files as exemplary files.

Such lack of specificity leaves Samsung guessing as to the alleged location of the steps in the source code. Thus, Vasu's claim charts fail to meet the standard set by Local Patent Rule 3-1(c) and the Discovery Order. *See Michael S Sutton Limited v. Nokia Corp.*, No. 6:07-CV-203, Dkt. No. 59, at 4-5 (E.D. Tex. February 13, 2009) (finding that plaintiff's claim chart "does not show the location of each element and thus does not meet the standard set by Patent Rule 3-1(c)" when plaintiff "does not specifically identify where the[] steps are found in the source code" and defendant "is left guessing as to the alleged location of the steps in the source code").

Exacerbating these issues, in the second example above, Vasu groups multiple elements together, contrary to Local Patent Rule 3-1(c), which requires an element-by-element analysis. Thus, Samsung "is unable to crystallize its non-infringement and invalidity theories, and the parties are hindered in identifying what claim terms need construction." *See Michael S Sutton Limited*, Dkt. No 59 at 5 (quoting *Connectel, LLC v. Cisco Sys., Inc.*, 391 F. Supp. 2d 526, 527-28 (E.D. Tex. 2005) and finding that "[g]rouping two elements together and referencing a seven-page source code in a claim chart does not clarify where the elements are allegedly located").

If Vasu does not provide supplemental contentions that comply with the Local Patent Rules and Discovery Order, Samsung will seek to strike Vasu's contentions and compel Vasu to provide Infringement Contentions that comply with the rules, in addition to seeking costs for needing to do so. *See Zix Corp. v. Echoworx Corp.*, No. 2:15-CV-1272-JRG, 2016 WL 3410367, at \*2-3 (E.D. Tex. May 13, 2016) (granting motion to strike amended infringement contentions and imposing sanctions where the plaintiff refused to comply with its obligation to "identify the source code of each accused instrumentality that allegedly satisfies each claim element" where the "amended infringement contentions are in several instances vague and conclusory" and "[i]n other instances [] merely recite claim language without providing [defendant] with notice as to what specific parts of the accused products practice the relevant software claim elements"); *see also Michael S Sutton*, No. 6:07-CV-203, Dkt. No 59 at 4-7 (granting plaintiff's motion to compel additional supplemental infringement contentions when the plaintiff did not specifically identify where each step and/or element of the asserted claims is located in the source code).

### Vasu's Infringement Contentions Fail to Chart with the Required Specificity

Vasu's Supplemental Infringement Contentions also do not sufficiently put Samsung on notice as to how the Accused Products infringe the Asserted Patents, leaving Samsung to guess at how Vasu might be alleging the accused products infringe. Despite Samsung's production of source code, Vasu continues to fail to provide charts with the required specificity in at least the following ways:

#### **1. '181 Patent**

- Claim 1 requires an "interface server." Vasu's infringement contentions assert the interface server is "the AAA server" (B-1 at 17), "HSS" (B-1 at 19) and the "SCC AS" (B-1 at 50). Vasu makes no attempt to show that the AAA server and HSS meet any of the claim

limitations relating to the claimed “interface server.” Vasu must amend its contentions to remove reference to these components as the alleged “interface server.”

- Element 1[b] requires “monitoring a signal strength of the first wireless communication network” and 1[c] requires “when the signal strength drops below a predetermine threshold,” performing some action. Vasu alleges that the first wireless communication network is “a Wi-Fi network or a PLMN.” B-1 at 13. Vasu provides contentions for how it alleges the accused products monitor signal strength of a Wi-Fi network and actions performed in response but does not provide contentions for how it alleges the accused products monitor signal of a PLMN or any actions performed in response to such monitoring. Vasu must amend its contentions to clarify what functionality relating to signal strength monitoring in its contentions is relevant to the PLMN, or that the first wireless network is Wi-Fi only, and that the PLMN is not the first wireless network.
- Element 1[d] requires “notifying the mobile communication device to terminate transmission over the first communication link.” In Vasu’s Infringement Contentions, Vasu contends that the “Accused Products (also referred to as user equipment, UEs) perform every step of the method of Claim 1 . . . .” Vasu, however, asserts that the “SCC AS”—not the Accused Products—“notifies the Accused Products to terminate a wireless communication link when appropriate, according to its connection criteria and signal strength.” Then in your 7/11/24 Letter, Vasu asserts that “the SCC AS is only an example of the notifications provided,” and that it is relying on “joint and/or indirect infringement.” Regardless of whether Vasu is relying on indirect and/or joint infringement, Vasu must make clear what functionality it is contending infringes in its infringement contentions. Vasu must amend its Infringement Contentions to make clear that it is not asserting that each Accused Product performs all of the claimed functionality.
- Element 1[c] requires “when the signal strength drops below a predetermined threshold, notifying an interface server with the mobile communication device,” but Vasu still does not clearly identify what it contends is the notification to the interface server in its Infringement Contentions. Vasu asserts in your 7/11/24 Letter that its claim charts include notification information and points to Vasu’s allegation in its contentions that “the Wi-Fi service calculate[s] “a ‘connected score’ based on the RSSI and . . . [can] pass the score to [a] connectivity service, which uses the score to determine whether to connect to a Wi-Fi network or to a mobile network.” (Letter at 4 and Appendix B-1 at 58). Therefore, Samsung understands that Vasu’s contention for the “notifying” is limited to the allegation that the Wi-Fi service passes a connected score based on the RSSI to a connectivity service. If our understanding is incorrect, please let us know.
- Element 1[d] requires “notifying the mobile communication device to terminate transmission over the first communication link.” Samsung understands from your 7/11/24 Letter that Vasu’s contention for this step is limited to the Accused Products’ alleged operation of “sen[ding] a DEAUTH command when the RSSI value was -84 dBm, thereby

terminating the Wi-Fi connection.” Appendix B-1 at 83. If our understanding is incorrect, please let us know.

## 2. '154 Patent

- Claim 1 requires an “interface server.” Vasu’s infringement contentions assert the interface server is “the AAA server” (Appendix D-1 at 16), “HSS” (D-1 at 18) and the “SCC AS” (D-1 at 48). Vasu makes no attempt to show that the AAA server and HSS meet any of the claim limitations relating to the claimed “interface server.” Vasu must amend its contentions to remove reference to these components as the alleged “interface server.”
- Elements 1[d] and 43[d] requires “notifying the [mobile] communication device to terminate transmission over the first communication link.” In its Infringement Contentions, Vasu contends that the “Accused Products (also referred to as user equipment, UEs) perform every step of Claim 1 . . . .” Vasu, however, asserts that the “SCC AS”—not the user equipment—“notifies the Accused Products to terminate a wireless communication link when appropriate, according to its connection criteria and signal strength.” Then in the 7/11/24 Letter, Vasu asserts that “the SCC AS is only an example of the notifications provided,” and that it is relying on “joint and/or indirect infringement.” Regardless of whether Vasu is relying on indirect and/or joint infringement, Vasu must make clear what functionality it is contending infringes in its infringement contentions. Vasu must amend its Infringement Contentions to make clear that it is not asserting that each Accused Product performs all of the claimed functionality.
- Element 1[c] requires “a second context is preferred over the context of the first communication link.” Element 43[c] similarly requires “a second context of a second communication link corresponding to the second network is preferable.” Vasu’s Supplemental Infringement Contentions generally allege that “the Accused Products may prefer a second context (signal strength by RSSI in the second network or by user preference),” but does not identify what specifically in the Accused Products is the alleged first and second context. Your 7/11/24 Letter, which merely repeats this general contention that “signal strength by RSSI or a user’s network preference—both of which are second contexts—can be preferred over a network whose signal strength falls below a certain threshold” does not provide any further clarity. Letter at 4. Merely identifying different contexts in such general terms without specifying which contexts map to the claim’s “first” and “second” contexts does not put Samsung on notice of what Vasu contends is the infringing functionality for each limitation as required. Vasu must amend its Infringement Contentions to clearly identify what it contends are the “first context” and “second context,” and what functionality in the Accused Products it contends is “a second context is preferred over the context of the first communication link.”
- Elements 1[c] and 43[c] require “when a second context is preferred over the context of the first communication link, notifying an interface server,” but Vasu still does not clearly

identify what it contends is the notification to the interface server in its Infringement Contentions. Vasu asserts in your 7/11/24 Letter that its claim charts include notification information and points to Vasu's allegation in its contentions that "the Wi-Fi service calculate[s] "a 'connected score' based on the RSSI and . . . [can] pass the score to [a] connectivity service, which uses the score to determine whether to connect to a Wi-Fi network or to a mobile network." (Letter at 4 and Appendix D-1 at 56). Therefore, Samsung understands that Vasu's contention for the "notifying" is limited to the allegation that the Wi-Fi service passes a connected score based on the RSSI to a connectivity service. If our understanding is incorrect, please let us know.

- Elements 1[d] and 43[d] require "notifying the [mobile] communication device to terminate transmission over the first communication link." Samsung understands from your 7/11/24 Letter that Vasu's contention for this step is limited to the Accused Products' alleged operation of "sen[ding] a DEAUTH command when the RSSI value was -84 dBm, thereby terminating the Wi-Fi connection." Appendix D-1 at 81. If our understanding is incorrect, please let us know.

### 3. '281 Patent

- Elements 1[a], 23[b], and 37[a] require a "first communication module and "second communication module." In its Infringement Contentions and 7/11/24 Letter (p. 5), Vasu alleges that "Wi-Fi network selection functions can be either the first communication module or the second communication module, depending on the network switching operation," but Vasu does not identify what is the other communication module in each scenario. Similarly, Vasu contends that where "the communication network is switched to mobile network, the Wi-Fi network selection functions or the Wi-Fi firmware is the first communication module; if the communication network is switched to Wi-Fi network, the Wi-Fi network selection functions or the Wi-Fi firmware is the second communication module." Vasu, however, does not identify what is the second communication module when the communication network is switched to mobile network and what is the first communication module when the communication network is switched to Wi-Fi network. Further, Vasu has not identified any structural component or software as the first and second communication modules for each network switching operation. Thus, for each type of network switching operation, Vasu must identify the structural component or software that it alleges to be the "first communication module" and the "second communication module."
- Relatedly, Vasu also alleges that "[d]epending on the switching of network (Wi-Fi to Wi-Fi, Wi-Fi to mobile, or mobile to Wi-Fi), VoIP user agent, VoWiFi call function, mobile call function can be either the first or the second communication module" (see, e.g., Appendix E-1 at 12), but VoIP user agent, VoWiFi call function, and mobile call function are different from Wi-Fi network selection functions Vasu separately identified as a communication module, as discussed above, when there is a switching to a mobile network or to a Wi-Fi network. Samsung is unable to determine which, if any, of these purported features (VoIP

user agent, VoWiFi call function, and mobile call function) Vasu contends is the alleged first and second communications module in each permutation of network switching, or how these features allegedly meet the various claim requirements for the claimed communication modules. Vasu's contentions should not leave Samsung guessing as to what is being accused. Vasu must amend its Infringement Contentions to show how these features meet the limitations of the claims for each networking switching operation (Wi-Fi to Wi-Fi, Wi-Fi to mobile, mobile to Wi-Fi), including Wi-Fi to Home PLMN, Home PLMN to Wi-Fi, Wi-Fi to Visitor PLMN, and Visitor PLMN to Wi-Fi, or remove them from its Infringement Contentions.

- Elements 1[b], 23[d], 37[b], and 45[d] require “wherein upon activation of a timer, [the/a] switching system causes [the/a] second communication module to change state from a sleep mode to an active mode, wherein the timer is activated to establish a time window of a predefined size . . . .” Elements 12[b] and 31[b] similarly require “activating [] a timer to establish a first time window of a first predefined size . . . . And element 31[f] requires, in part, “a timer is activated to establish a second time window of a second predefined size.” Per your 7/11/24 Letter, Vasu asserts it has identified “three separate timers.” Letter at 5. Samsung understands from your letter that Vasu's contentions for the “timer” are limited to the following three features: (1) “Android connectivity system issu[ing] periodic scans”; (2) “Doze”; and (3) “imminent AlarmClock alarm.” *Id.* To the extent Vasu continues to maintain that these three features are the alleged “timer,” Vasu must amend its Infringement Contentions to show how these features meet the limitations of the claims related to the timer, including, e.g., identifying what is the specific first time window that is established by the activation of each of these timers and what is the predefined size of this first window, as well as what is the second time window of what second predefined size that is established the activation of these timers.

As one example, it is unclear what Vasu is asserting to be the “first time window of a first predefined size” and the “second time window of a second predefined size.” In its Infringement Contentions and 7/11/24 Letter (p. 5), Vasu refers to “an exemplary second time window,” copied below (see also Appendix E-1 at 306 (cl. 31) and 61 (cl. 1)). First, Vasu's Supplemental Infringement Contentions do not provide the specificity that Vasu provides in its letter, and on their face, the contentions leave Samsung guessing as to what the time windows are. Vasu must amend its Infringement Contentions to make clear what the time window are. Moreover, Vasu's Infringement Contentions point back to the same polling interval of 3 seconds for the “second time window with a pre-defined size,” and discloses a polling interval being extended to 6 seconds when the device is stationary. Vasu must amend its Infringement Contentions to clarify what it is alleging to be the “first time window of a first predefined size” and the “second time window of a second predefined size” for each of the relevant asserted claims. For example, is the “second time window of a second predefined size” of claims 1 and 31 the polling interval at 6 seconds or at 3 seconds?

In an exemplary scenario, when the screen of the Accused Products is on, and the Wi-Fi service may poll RSSI and link-layer stats every 3 seconds (the first time window with a pre-defined size) or by other configuration (config `wifiPollRssiIntervalMilliseconds` or config `wifiAdjustPollRssiIntervalEnabled` for dynamic adjustment based on the device mobility state and RSSI). *Id.* at 05. The polling interval is extended to 6 seconds when the device is stationary and RSSI is above -68 dBm (configured by the config `wifiClientRssiMonitorThresholdDbm` and config `wifiClientRssiMonitorHysteresisDb`), which is the second pre-defined threshold value. *Id.* The polling interval is reduced back to 3 seconds (the second time window with a pre-defined size, configured by the config `wifiPollRssiIntervalMilliseconds`) when the device is non-stationary or RSSI is below -73 dBm, which is the third pre-defined threshold value and smaller than the second pre-defined size (-68 dBm). *Id.*

- In providing its clarifications, for claims 1, 12, 23, 31, 37, and 45, Vasu’s amendments should make clear that it is not asserting that the 20, 60, and 180 seconds, e.g., as described in the paragraph preceding the above excerpted paragraph for claim 1 (see Appendix E-1 at 61), are the alleged first or second time windows. To the extent Vasu is relying on any of these other times for any “time window” elements, Vasu must amend its Infringement Contentions to identify them.
- Claims 12 and 31 require that the second network to which the connection is switched is a “Wi-Fi network,” but Vasu asserts that the second wireless network is a “Wi-Fi or mobile network” (see Appendix E-1 at 108 and 254). Vasu must amend its Infringement Contentions to remove the reference to “mobile network” or explain its good-faith basis for asserting that a mobile network is a “Wi-Fi network.”
- Elements 12[a]-[b], 12[c], 12[e], and 12[g] require four contexts: “first context,” “second context,” “third context” and “fourth context.” Vasu points to a number of signal strengths and user preferences generally but never clearly identifies what the first, second, third, and fourth contexts are. Further, as we previously noted, Vasu generally alleges that the “the Accused Products detect a third context (signal strength via RSSI or user preference) through pre-defined time window and a threshold value of the signal strength” (Appendix E-1 at 139) and “the Accused Products detect a fourth context through switching system and its communication modules during the second time window (described in Element 12[d/e])” (Appendix E-1 at 144), but Samsung continues to be unable to determine what specifically Vasu is asserting are the third and the fourth contexts, particularly given that Vasu appears to merely cross reference its discussion and evidence from other claim elements that do not recite a “third context” or “fourth context.” Your 7/11/24 Letter merely does the same: “Vasu has provided examples of what the contexts can be in previous limitations, which are references in the claim limitations at issue.” Letter at 6 (citing Appendix E-1 at 81 and 98). Merely identifying a number of different contexts without specifying which contexts map to the claims “first,” “second,” “third,” and “fourth” contexts does not put Samsung on notice of what Vasu contends is the infringing functionality for each limitation as required. Vasu must amend its Infringement Contentions to identify what it contends are the “first,” “second,” “third,” and “fourth” contexts.

- Elements 1[b], 12[f], 23[d], 31[f], 37[b], and 45[d] require a “second predefined threshold value  $[V_{th2}]$ ,” and elements 1[b], 12[h], 23[d], 31[f], 37[b], and 45[d] require a “third predefined threshold value  $[V_{th3}]$ ,” wherein the third predefined threshold value ( $V_{th3}$ ) is smaller than the second predefined threshold value ( $V_{th2}$ ). Samsung understands from your 7/11/24 Letter that Vasu’s contention for the “second predefined threshold value  $[V_{th2}]$ ” is limited to -68 dBm (see, e.g., Appendix E-1 at 61, 139, 306), and the “third predefined threshold value  $[V_{th3}]$ ” is limited to -73 dBm (see, e.g., Appendix E-1 at 61, 144, 306). If our understanding is incorrect, please let us know.
- Elements 23[d], 37[b], and 45[d] require “wherein upon activation of a timer, the switching system causes the second communication module to change state from a sleep mode to an active mode . . . .” Vasu asserts that “[a]s described in Element 1[b], the Accused Products’ switching system (“Switch to mobile data” or “Switch to better Wi-Fi network”) activate a timer to cause the second communication module (mobile call functions) to change state from sleep mode to active mode based on pre-defined time windows,” but in 1[b], Vasu only asserts that “the platform exits Doze (from sleep state to an active mode) by user interaction, device movement, turning on the screen, or imminent AlarmClock alarm (another timer).” Appendix E-1 at 57. Vasu must amend its Infringement Contentions to identify what it asserts to be the “sleep mode” and the “active mode.”
- Element 31[b] requires “activating, with the server, a timer to establish a first time window of a first predefined size  $T_1$  if the detected first signal level is greater than a first predefined threshold value,” and element 31[c] requires “determining, with the server, a second signal level during the first time window” In its Infringement Contentions, Vasu merely points to various features it alleges are in the accused products and does not identify any server functionality. Vasu must amend its Infringement Contentions to show what functionality of the server Vasu is asserting activates a timer and the way in which the server determines a second signal level during the first time window as required by these claim elements.
- Element 31[d] requires “if the second detected signal level falls below the first predefined threshold value, then searching for alternative Wi-Fi signals having signal level above the first predefined threshold value, with the server.” Element 31[e] requires “if an alternative signal level is above the first predefined threshold value, then switching a Wi-Fi communication in progress to a source of the alternative Wi-Fi signal, with the server.” Element 31[f] requires “if no alternative signal level is above the first predefined threshold value, then switching a Wi-Fi communication in progress to the wireless network, with the server.” Again, in its Infringement Contentions, Vasu merely points to various features it alleges are in the accused products and does not identify any server functionality. Vasu must amend its Infringement Contentions to show what functionality of the server Vasu is asserting (1) searches for alternative Wi-Fi signals having signal level above the first predefined threshold value, (2) switches a Wi-Fi communication in progress to a source of the alternative Wi-Fi signal, and (3) switches a Wi-Fi communication in progress to the wireless network if no alternative signal level is above the first predefined threshold value.

- In addition, for various limitations for claim 31, as an alternative the alleged “SCC AS interface server,” Vasu also refers to a “server for Wi-Fi framework/Wi-Fi firmware,” but does not identify what this “server” actually is, or how it relates in any way to the remaining claim language. Vasu must amend its Infringement Contentions to identify what this “server” is and show what functionality of this server Vasu is asserting (1) activates a timer, (2) determines a second signal level during the first time window, (3) searches for alternative Wi-Fi signals having signal level above the first predefined threshold value, (4) switches a Wi-Fi communication in progress to a source of the alternative Wi-Fi signal, and (5) switches a Wi-Fi communication in progress to the wireless network if no alternative signal level is above the first predefined threshold value. Otherwise, Vasu must amend its Infringement Contentions to clarify that the only server it is accusing is the “SCC AS interface server.”

#### 4. '996 Patent

- Elements 1[a] and 35[a] requires a “first communication module and “second communication module.” Similarly, Element 34[a] requires a “communication module” and “Wi-Fi communication module.” In its Infringement Contentions and 7/11/24 Letter (p. 5), Vasu alleges that “Wi-Fi network selection functions can be either the first communication module or the second communication module, depending on the network switching operation,” but Vasu does not identify what is the other communication module in this scenario. Similarly, Vasu contends that where “the communication network is switched to mobile network, the Wi-Fi network selection functions or the Wi-Fi firmware is the first communication module; if the communication network is switched to Wi-Fi network, the Wi-Fi network selection functions or the Wi-Fi firmware is the second communication module,” Vasu, however, does not identify what is the second communication module when the communication network is switched to mobile network and what is the first communication module when the communication network is switched to Wi-Fi network. Further, Vasu has not identified any structural component or software as the first and second communication modules for each network switching operation. Thus, for each type of network switching operation, Vasu must identify the structural component or software that it alleges to be the “first communication module” and the “second communication module.”
- Relatedly, Vasu also alleges that “[d]epending on the switching of network (Wi-Fi to Wi-Fi, Wi-Fi to mobile, or mobile to Wi-Fi), VoIP user agent, VoWiFi call function, mobile call function can be either the first or the second communication module,” but VoIP user agent, VoWiFi call function, and mobile call function are different from Wi-Fi network selection functions Vasu separately identified as a communication module, as discussed above, when there is a switching to a mobile network or to a Wi-Fi network. Samsung is unable to determine which, if any, of these purported features (VoIP user agent, VoWiFi call function, and mobile call function) Vasu contends is the alleged first and second communications module in each permutation of network switching, or how these features allegedly meet the

various claim requirements for the claimed communication modules. Vasu's contentions should not leave Samsung guessing as to what is being accused. Vasu must amend its Infringement Contentions to show how these features meet the limitations of the claims for each networking switching operation (including at least Wi-Fi to Wi-Fi, Wi-Fi to mobile, mobile to Wi-Fi, Wi-Fi to Home PLMN, Home PLMN to Wi-Fi, Wi-Fi to Visitor PLMN, and Visitor PLMN to Wi-Fi) or remove them from its Infringement Contentions.

- Elements 1[a], 12[d], 23[d], 34[b], and 35[b] require “wherein upon activation of a timer, the [switching system/the server] causes the [second/Wi-Fi] communication module to change state from a sleep mode to a stand-by mode,” element 25[d] requires “wherein upon activation of a timer, a communication module of the second device changes state from a sleep mode to a stand-by mode,” and elements 39[f] and 41[d] require “wherein upon activation of a timer, the [mobile communication device/interface] causes a communication module to change state from a sleep mode to a stand-by mode.” It is Samsung’s understanding from your 7/11/24 Letter that Vasu’s contentions for the “timer” are limited to the following three features: (1) “Android connectivity system issu[ing] periodic scans”; (2) “Doze”; and (3) “imminent AlarmClock alarm.” To the extent Vasu continues to maintain that these three features are the alleged “timer,” Vasu must amend its Infringement Contentions to show how these features meet the limitations of the claims related to the timer, including, e.g., explaining how upon the activation of any of these purported timers, a communication module changes state from a sleep mode to a stand-by mode as caused by the mobile communication device or interface per the asserted claims.
- Elements 12[d] and 23[d] require “wherein upon activation of a timer, the server causes a communication module to change state from a sleep mode to a stand-by mode, and the server causes the [second] communication module to change state from the stand-by mode to an active mode before a [the] communication is switched to the communication module.” ISamsung understands from your 7/11/24 Letter that Vasu’s contentions for the “server [that] causes a communication module to change state from a sleep mode to a stand-by mode” and “from the stand-by mode to an active mode before a communication is switched to the communication module” is limited to the “SCC AS” it references in its analysis of 12[c] (7/11/24 Letter at 6; see also F-1 at 98), but Vasu has not amended its Infringement Contentions to include this additional disclosure and show how the SCC AS causes a communication module to change state from a sleep mode to a stand-by mode and causes the communication module to change state from the stand-by mode to an active mode before a communication is switched to the communication module. Vasu should amend its contentions to make this clear.
- Elements 1[b], 12[d], 23[d], 25[d], 34[b], 35[b], 39[f], and 41[d] also require a “communication module [that] changes state from a sleep mode to a stand-by mode” and “from the stand-by mode to an active mode.” Samsung understands from your 7/11/24 Letter that Vasu’s contentions for the “sleep mode” is “the Doze stationary state,” the “stand-by mode” is “the Doze lightweight,” and the “active mode” is “the exit of Doze by a

triggering event (e.g., user interaction, device movement, turning on the screen, or imminent AlarmClock alarm)” (7/11/24 Letter at 6; see also F-1 at 35), but Vasu has not amended its Infringement Contentions to include this additional explanation. Vasu must amend its Infringement Contentions to specify these contentions.

- Relatedly, for elements 1[a], 12[d], 23[d], 25[d], 34[b], 35[b], 39[f], and 41[d], Vasu’s Infringement Contentions show what it alleges to be a transition from a sleep mode to an active mode, but they do not identify the functionality Vasu alleges is the transition from a sleep mode to a stand-by mode or what functionality Vasu alleges is the transition from the stand-by mode to an active mode. Vasu must amend its Infringement Contentions to include this additional disclosure.

#### Vasu Cannot Amend its Infringement Contentions Without Seeking Leave

Because the deadline for Vasu to serve supplemental infringement contentions that comply with the Discovery Order has passed, Vasu is not permitted to amend its Infringement Contentions without first seeking leave of the Court. *See Traxcell Technologies, LLC v. AT&T, Inc.*, E.D. Texas Case No. 2:17-cv-00718-RWS-RSP, Dkt. No. 18 (August 13, 2018) (“In short, plaintiffs that rely on ‘amended’ or ‘supplemental’ infringement contentions without moving for leave to amend do so at their own peril. Because of the clarity of the rule, any ambiguity as to whether contentions have been accepted by agreement of the parties will likely be resolved in the defendant’s favor. The better practice is for the plaintiff to always move for leave to amend”).

Moreover, Samsung’s products, and information about them, are publicly available, Samsung has produced technical documents and source code describing how the accused functionality operates (to the extent Samsung can discern the accused functionality), and Vasu has had more than ample time to prepare its infringement contentions after initiating this lawsuit over seven months ago. Accordingly, should Vasu be granted leave to amend its contentions and choose to maintain its claims against Samsung for products beyond the Galaxy S22 products, Samsung reserves its rights to object to any attempt by Vasu to expand its theories of infringement beyond those specifically identified in the Infringement Contentions, including, for example, its addition of 64 newly accused products for the ’181, ’154, ’281 and ’996 patents, or attempts to add allegations beyond its existing allegations of infringement of the identified claims of the Patents-in-Suit.

With respect to any proposed amendments relating to the deficient identification of the accused functionality as identified in the preceding section of this letter, Samsung will consider any such proposal when Vasu provides the proposed amendment.

Please confirm by September 19, 2024, that Vasu will promptly provide proposed amended infringement contentions by September 30, 2024, to address the issues raised in this letter. If Vasu does not agree, Samsung requests a meet and confer on September 20 on a motion to strike Vasu’s Supplemental Infringement Contentions and to compel Vasu to provide infringement contentions that comply with the local rules.

Sincerely,

A handwritten signature in dark ink, appearing to read "Alexander Middleton". The signature is written in a cursive style with a large initial "A" and a long, sweeping underline.

Alexander Middleton