UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,
v.

HEADWATER RESEARCH LLC,
Patent Owner.

Case No.: IPR2026-00050
Patent No. 8,631,102

DECLARATION OF ERIK DE LA IGLESIA IN SUPPORT OF PATENT OWNER'S RESPONSE

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

Executed on July 21st, 2026, at Mountain View, California.



Erik de la Iglesia

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I, Erik de la Iglesia, hereby declare as follows:

I. Introduction

1. I am over the age of eighteen (18) years and otherwise competent to make this declaration.

2. I have been retained as an expert witness on behalf of Patent Owner Headwater Research LLC for the above-captioned *inter partes* review ("IPR"). I understand that the petition for *inter partes* review involves U.S. Patent No. 8,631,102 ("the '102 patent").

3. I make this declaration based on my personal knowledge, educational background and training, consideration of the materials I discuss herein, and my expert opinions.

4. My work on this matter is being billed at my normal hourly consulting rate of $795, with reimbursement for actual expenses. My compensation is not related to the outcome of any proceeding involving the '102 patent. I have no personal interest in the outcome of the case.

5. In preparing this declaration, I have reviewed and considered the '102 patent (Ex. 1001) and its prosecution history (Ex. 1002), the Petition and the prior art references submitted with the Petition—including U.S. Patent Application Publication No. 2009/0017789 ("Thomas," Ex. 1005) and U.S. Patent Application Publication No. 2008/0039102 ("Sewall," Ex. 1006)—the declaration of Dr. Bill

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Lin submitted in support of the Petition (Ex. 1003), the transcript of Dr. Lin's deposition taken July 7, 2026 (Ex. 2008), and each other document cited in my declaration.

II. Background and Qualifications

6. My qualifications for forming the opinions given in this declaration are summarized here and are addressed more fully in my curriculum vitae, which is submitted as Exhibit 2007.

7. I hold a Bachelor of Science degree in Electrical Engineering from the University of Florida, and a Master of Science degree in Electrical Engineering from Stanford University. While at Stanford, I was an NSF Graduate Research Fellow. My graduate focus included VLSI CMOS architecture, high-speed circuit design, computer networks and protocols, and artificial intelligence. I have worked in several computer and electrical engineering related fields for over 25 years resulting in 68 issued U.S. patents that have been cited over 2,850 times in USPTO patent applications. Since 2003, I have served in a number of chief architect and founder roles of companies that have been acquired or gone public. My experiences include the design or implementation of networks and network-based computation and protocol systems similar to the technology of the '102 patent, including systems implementing device-side settings and policies for the operation, security, and control of network services.

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8. Between December 1997 and November 1999, I was a circuit design engineer at Intel Corporation within the Mobile and Handheld Products Group. My responsibilities included working on several aspects of mobile processors and chipsets including clock and power distribution, dynamic clock frequency selection, and the circuit design, device simulation, and validation of such features. Until March of 2000, I worked on similar functionality within the Microprocessor Products Group for the Itanium 3 and 4 products.

9. My work in power distribution included thermal modeling and predictive control of silicon devices and their packaging such as multi-tiered cooling systems for embedded, mobile, and desktop environments. Such systems included multiple tiers of thermal sensors, active and passive thermal control systems, and the feedback and analytic firmware and software control. My models were part of the development of the Thermal Design Power (TDP) metrics used by OEM and system designers to plan thermal control solutions for consumer and industrial products. The Mobile and Handheld Products Group also defined and implemented settings and policies for operations and security of devices.

10. Between March 2000 and September 2003, I worked as a logic designer and architect for WebStacks and, through acquisition, Extreme Networks. WebStacks built a fully hardware-based TCP and HTTP processing stack for network processing functions including load balancing, proxy processing, and

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content rewriting. I was responsible for the architecture and design of the HTTP processing engine including header extraction and processing.

11. Between August 2003 and August 2007, I worked as Founder, Chief Architect and Director of Engineering for Reconnex, later acquired by McAfee. Reconnex built a gigabit line-rate network security analyzer capable of classification, heuristic analysis, and policy enforcement on arbitrary protocols and content types. The Reconnex product captured and analyzed content transmitted over the internet using HTTP and other protocols, including storage protocols. Design of the Reconnex system was based on a modified and customized version of the Linux kernel which included specifically designed driver source code and interfacing between the application and kernel domains. Reconnex technology was employed in the audit and compliance verticals based on its ability to quickly analyze and classify the content of transmissions and interact with protocols and communications crossing corporate and departmental boundaries. In network environments, including mixed wired and wireless environments, Reconnex technology served to audit and enforce policy settings for security and operations control and identification and analysis of communication streams.

12. Between August 2007 and September 2008, I founded Strangways, a company focused on addressing messaging security for webmail and internet messaging protocols. Products and technology developed by Strangways were sold

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to SendMail Inc., Iron Port (Cisco), and other companies. The Strangways product utilized a Squid caching server and ICAP content rewrite server to translate HTTP to SMTP.

13. Between September 2008 and April 2014, I worked as Chief Architect for Gridiron Systems and, through acquisition, Senior Director of Technology for Violin Memory. I held the Senior Director position with Violin Memory both before and after the company's IPO. My responsibilities included architecture and design of flash media controllers, adaptive caching design, and machine learning for application storage behavior analytics.

14. The Gridiron product was a storage accelerator used in many analytic environments such as big data architectures with constant ingest and processing of financial, consumer and IoT data. In my role as Chief Architect, I often worked with customers to implement and accelerate their analytics environments and spoke on related topics at trade shows and industry user groups. During product development, I worked with the data science team at Shopzilla to improve database and storage performance for real-time shopping recommendation and user tracking for advertising.

15. Additional information regarding my employment history and prior expert testimony is included in Exhibit 2007. As reflected in Exhibit 2007, I have consulted on several matters involving intellectual property disputes including

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instances of alleged patent infringement requiring analysis of source code, reviewing and analyzing patents, writing expert reports, and testifying in court. I have testified at deposition and at trial in a number of these cases.

III. Legal Principles

A. Claim Construction

16. I understand that the first step in performing a validity analysis of the patent claims is to interpret the meaning and scope of the claims by construing the terms and phrases found in those claims. I understand that the appropriate construction of a claim term is its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent and the prosecution history. I further understand that the standard for claim construction in an *inter partes* review is the same standard as is applied in district court proceedings.

17. I understand that a determination of the meaning and scope of the claims is a matter of law. I have been informed that to determine the meaning of the claims, one should consider the intrinsic evidence, which includes the patent's claims, written description, and prosecution history. I understand that Dr. Lin states that no claim terms require express construction (Ex. 1003, ¶55), and in my analysis I have applied the plain and ordinary meaning of the claim language as one of ordinary skill in the art would understand it.

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B. Burden of Proof

18. I understand that in an *inter partes* review, the petitioner has the burden of proving unpatentability by a preponderance of the evidence.

C. Anticipation

19. I have been instructed by counsel and understand that a patent claim is anticipated only if a single prior art reference discloses every element of the claim. I further understand that it is not sufficient for the elements merely to appear somewhere within the four corners of the reference: the single reference must disclose the elements arranged or combined in the same way as they are arranged in the claim. I understand that anticipation is not established by identifying multiple, distinct teachings within a reference that a skilled artisan might combine to arrive at the claimed arrangement.

20. I also understand that a reference need not describe the claimed subject matter using the same words as the claim. However, where a petitioner relies on subject matter that is not expressly disclosed, I understand that the missing subject matter must be "inherent" in the reference—that is, it must necessarily be present in what the reference discloses—and that inherency cannot be established by probabilities or possibilities, or by showing that a disclosed system merely could be implemented in the claimed way.

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D. Obviousness

21. I have been instructed by counsel and understand that a combination of prior art references may render a claim obvious if, at the time of the invention, a person of ordinary skill in the art would have selected and combined those prior-art elements in the normal course of research and development to yield the claimed invention.

22. I understand that in an obviousness analysis, one should consider the *Graham* factors, including: the scope and content of the prior art; the differences between the claimed inventions and the prior art; and the level of ordinary skill in the art. I further understand the obviousness analysis is to be performed on a claim-by-claim basis. I understand that a person of ordinary skill in the art is a person of ordinary creativity, not an automaton.

23. I have been instructed by counsel and understand that obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. I understand obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have been motivated to combine those references in a manner that would include all limitations of the challenged claim, and, in making that combination, a person of ordinary skill in the art would have had a reasonable expectation of success.

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24. I also understand that an obviousness analysis must be conducted with awareness of the distortion caused by hindsight bias and with caution of arguments reliant upon *ex post* reasoning. For instance, I understand that when considering obviousness, I should put myself in the position of a person of ordinary skill in the field at the time of the invention, rather than considering new information that is known today, but was not known before the priority date of the challenged patent.

IV. Overview of the '102 Patent

25. The '102 patent describes "device assisted" service policy implementation, in which "service policy settings for the device"—settings that in conventional networks resided in the network core—are "moved out of the core network and into the end user device." Ex. 1001, 8:62–9:4. As relevant here, the specification describes embodiments in which the end-user device, such as "a Wi-Fi hot spot with a service processor 115 capability," acts "as a service intermediary or intermediate connection between the network and one or more end point devices," forwarding traffic between those devices and the network. Ex. 1001, 153:31–37, 154:37–38.

26. Claim 1—the sole independent claim—recites a device-side policy configuration, wherein an "end-user device" includes various limitations. The limitations principally at issue here, using the limitation labels from the Petition and Dr. Lin's declaration, are the following (Ex. 1001, claim 1):

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[1b] memory configured to store a plurality of service policy settings, the plurality of service policy settings including a first service policy setting for authorizing the end-user device to provide a forwarding service to the one or more other devices, the forwarding service for forwarding traffic between the one or more other devices and the network system;

[1d][i] at least assist to obtain configuration information from the one or more network elements, the configuration information instructing the one or more processors to modify or to allow modification of the first service policy setting,

[1d][ii] at least assist to obtain, through the user interface, a user input associated with enabling or disabling the forwarding service, and

[1d][iii] modify a second service policy setting of the plurality of service policy settings in accordance with the user input, the second service policy setting for at least assisting in enabling or disabling the forwarding service.

27. Claim 1 thus requires two distinct "service policy settings," controlled through two different channels. The "first service policy setting" is "for *authorizing* the end-user device to provide a forwarding service to the one or more other devices," and it is modified (or its modification allowed) by "configuration information" that the device obtains "from the one or more network elements." The "second service policy setting of the plurality of service policy settings" is "for at least assisting in *enabling or disabling* the forwarding service," and it is modified "in accordance with" a "user input" obtained "through the user interface." In short,

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the network side controls whether the end-user device is authorized to provide the forwarding service at all, while the device's user controls whether that service is enabled or disabled. These are two different settings, stored in the device's memory, modified through two different channels.

V. Person of Ordinary Skill in the Art

28. I understand that Dr. Lin states in his declaration that a person of ordinary skill in the art pertinent to the '102 patent "would have had at least a bachelor's degree in computer science, electrical engineering, or a related field, and at least two years of work/research experience in the field of computer networking and networking devices," and that "[m]ore related education would compensate for fewer years of work experience (and vice versa)." Ex. 1003, ¶¶53–54. For purposes of this declaration, I apply Dr. Lin's proposed level of ordinary skill in the art. My own qualifications exceed this level, and my opinions below would be the same whether I applied stricter qualifications with additional years of experience or Dr. Lin's proposed level of skill.

VI. Overview of Thomas

29. Thomas describes a cell phone (wireless device 110) that asks a server for permission to provide hotspot service through a hotspot application. The process works as follows: the user starts client access application 312; the phone sends a start message to server 108; the server answers with a start response

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message indicating "okay to run or never start," and if an "okay to run" result is received, the hotspot application will be allowed to continue running to provide hotspot service; when the user stops the application, stop messages are exchanged and the session ends. Ex. 1005, [0057]–[0060], [0065]. Thomas states this expressly:

> In response to receiving the start response message, the wireless device 110 will either start the client access application 312 or will stop its attempts depending upon whether the parameter set indicated that it was okay to run or whether it should never start.

30. Ex. 1005, [0060]. Thomas also describes mechanisms by which the owner of wireless device 110, or a service provider, may allow or disallow particular downstream computing devices 114 from using the hotspot service that device 110 provides. *E.g., id.*, [0044]–[0046], [0052], [0061]–[0063], Figs. 5, 6, 8. I discuss those disclosures below.

VII. Dr. Lin Identifies Only a Single "Service Policy Setting" in Thomas (Ground 1)

A. The "authorized/unauthorized" setting and the "on/off" setting that Dr. Lin identifies are the same setting.

31. I understand that Dr. Lin opines that the claimed "first service policy setting" in Thomas is a setting reflecting whether wireless device 110 is authorized to provide the hotspot forwarding service. Dr. Lin states that "[o]ne of skill in the art would understand that the end user device's initial or default policy service with

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respect to the forwarding service is *unauthorized*, as authorization is required before wireless device 110 can provide its forwarding service." Ex. 1003, ¶64. He further states that, if the server grants authorization, "[t]he wireless device 110 may then change its first service policy setting to authorized, which permits the wireless device to initiate application 312 and provide the forwarding service to other computing devices," Ex. 1003, ¶65, and that this authorization is a "'setting' that would remain in place during the forwarding service session," Ex. 1003, ¶66. In other words, on Dr. Lin's theory, the alleged first setting is "authorized" from the time application 312 is permitted to run until the forwarding-service session terminates.

32. For the claimed "second service policy setting," I understand that Dr. Lin points to "an on or off setting" for the forwarding service, which he states "is reflected in the user interface of Thomas's wireless device 110 which displays that the forwarding service is 'ON.'" Ex. 1003, ¶79 (citing Ex. 1005, Figs. 9–10). Dr. Lin states that "to enable the forwarding service, 'the user of the wireless device 110 starts the client access application 312' and to disable the forwarding service, the 'user of the wireless device 110 stops the client access application 312,'" after which stop messages are exchanged and the device "may then terminate the session (i.e., change the second service policy setting to off)." Ex. 1003, ¶80. In

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other words, within Dr. Lin's theory, the alleged second setting is "on" from the time application 312 starts until the forwarding-service session terminates.

33. In my opinion, these two alleged settings are the same setting, because each is functionally and operationally the ***same*** setting: whether Thomas's phone is providing the forwarding service through application 312. Thomas is explicit that the authorization information Dr. Lin relies upon for the alleged "first" setting is what causes "the wireless device 110 [to] either start the client access application 312 or … stop its attempts." Ex. 1005, [0060]. And Dr. Lin's own description of the alleged "second" setting is coextensive with whether application 312 is running. Ex. 1003, ¶¶79–80. Both alleged settings, according to Dr. Lin's own description of Thomas, thus are set to "authorized" or "on" when application 312 is permitted to run, and set to "unauthorized" or "off" when the session terminates. A person of ordinary skill reviewing Thomas and Dr. Lin's declaration would understand this to be ***one*** setting, not a stored "plurality of service policy settings including a first service policy setting" and a distinct "second service policy setting of the plurality," as claim 1 requires.

34. Dr. Lin's deposition testimony, in which he was asked about these specific portions of his declaration, confirms my opinion. Asked to distinguish the two settings his declaration identifies, Dr. Lin answered: "Those are both under the client access application." Ex. 2008 at 28:1–7. Asked whether the alleged second

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setting could be "on" at the same time that wireless device 110 is *not authorized* to provide network forwarding service, he stated he had not offered such an opinion. Ex. 2008 at 67:18–68:7. And asked to identify any disclosure in Thomas in which the alleged second setting is "off" while the device remains "authorized," he was unable to do so. Ex. 2008 at 68:8–69:24. I have likewise reviewed Thomas, and I did not identify any disclosure in which the alleged "authorized/unauthorized" state and the alleged "on/off" state exist as separate stored settings, hold different values, or are (or can be) modified separately.

35. I have also reviewed Dr. Lin's analysis at paragraphs 62 through 81 of his declaration for any explanation of how the alleged "authorized" setting and the alleged "on" setting are distinct from one another. There are none. The declaration asserts that "authorized" maps to the "first" setting and "on" maps to the "second" setting, but contains no analysis of what makes them different settings, where each is separately stored, or how one could be modified without the other. Ex. 1003, ¶¶62–81.

B. The "another 'first service policy setting'" of Ex. 1003, ¶67 does not identify a distinct setting meeting the claim language.

36. I understand that paragraph 67 of Dr. Lin's declaration states that Thomas "discloses that wireless device 110 may change authorization settings (i.e., another 'first service policy setting') to provide the forwarding service on an

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individual user-by-user basis," citing Thomas's Figure 5 user interface for allowing or disallowing access by particular computing devices. Ex. 1003, ¶67 (citing Ex. 1005, [0044]–[0046], [0052], Fig. 5).

37. At his deposition, Dr. Lin was asked specifically whether the setting described in paragraph 67 is the same first service policy setting as, or a different setting from, the one described in paragraph 64 of his declaration. He answered that "it's the same service policy in terms of network authorization, and paragraph 67 just adds additional support." Ex. 2008 at 40:13–41:19. He explained that Figure 5 serves "to illustrate a use case for why this device 110 would want to get network authorization," Ex. 2008 at 42:15–23, and confirmed that his "opinions in paragraphs 67 are confined to exactly what I wrote in paragraph 67." Ex. 2008 at 44:5–16. Based on this testimony, it does not appear that Dr. Lin intended to present an alternative "first service policy setting" at all.

38. I have been asked to consider whether an individual user-by-user authorization in Thomas *would* be a setting "for authorizing *the end-user device* to provide a forwarding service to the one or more other devices," as limitation 1[b] requires. In my opinion, it would not be. In Thomas, the only state that determines whether wireless device 110 is authorized to provide its forwarding service is the authorized/on state addressed above: once device 110 learns it is "okay to run," it initiates application 312 and provides the forwarding service. Ex. 1005, [0057]–

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[0060]; Ex. 1003, ¶¶64–65. The user-by-user mechanisms would at most influence which *downstream devices* are able to provide their users access to the forwarding service that device 110 has already been authorized to provide—and they can be exercised only after the wireless device 110 has already been authorized to provide its forwarding service.

39. Thomas's own descriptions confirm that its user-by-user mechanisms authorize the downstream *client computing devices 114*, not wireless device 110. Regarding Figure 5, Thomas states that "a single wireless device 110 is provided with a user interface to allow or disallow access to a connection via the Internet 104 *by computing devices* that are within range of the wireless device 110," that "three of the computing devices have been approved" as client computing devices 114, and that "[a]n additional computing device 502 *is not authorized* to use the wireless device 110 for networking activities." Ex. 1005, [0044]. Similarly, Thomas describes "[a]uthorization *of computer traffic from the client computing devices 114*" by "methods of identifying *eligible computing devices*," with the user of wireless device 110 able to "accept or deny the request to access the Internet through the wireless device 110." Ex. 1005, [0046]. It is the computing devices 114 (or 502) that are either authorized or not; wireless device 110—the device Dr. Lin maps to the claimed "end-user device"—is the device doing the authorizing.

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40. The Figure 6 "stranger" scenario that Dr. Lin cites (Ex. 1003, ¶¶67, 74–75) is the same. Thomas's paragraph 52 describes a stranger's request being "passed through an available wireless device 110 within wireless communication range of the user's client computing device 114 and authenticated to provide access"—that is, the stranger's client device 114 is authenticated to provide its user, the stranger, with access through device 110. Ex. 1005, [0052]. Thomas then describes alternatives in which that same authentication of the stranger's device is performed by "a service provider that provides wireless service to the wireless device 110," or in which "a service provider with which the stranger has an account" is "contacted separately by the stranger for account authorization." *Id.* Each alternative authenticates or authorizes ***the stranger's device*** 114. None of these disclosures describes wireless device 110 receiving authorization or permission to provide any service—device 110 need not authenticate itself, as it already knows whether it is authorized to provide forwarding services.

41. Thomas's Figure 8 confirms my understanding in this regard. Figure 8 sets forth "generalized steps for establishing a session where the request for access through the wireless device 110 is processed at the wireless device 110," in which server 108 determines "whether it is appropriate *for the proposed device* to run"—the "proposed device" being client computing device 114. Ex. 1005, [0061], [0063]. Thomas states that the server's "add client response message includes a

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message type indicating whether *the device* is authorized to run," and assumes for illustration "that the *client computing device 114* is authorized to run." Ex. 1005, [0063]. Again, the authorization is provided to client device 114, rather than to wireless device 110 in these disclosures.

42. Accordingly, in my opinion, the disclosures cited in paragraph 67 (and paragraphs 74–75) of Dr. Lin's declaration do not identify a "first service policy setting for authorizing the end-user device to provide a forwarding service to the one or more other devices," and they do not supply the second, distinct "service policy setting" that is otherwise missing from Dr. Lin's analysis of Thomas.

C. Dr. Lin's analysis does not show the relied-upon disclosures of Thomas arranged as in claim 1.

43. As I noted in the Legal Principles section above, I understand that anticipation requires a single reference to disclose the claim elements arranged as they are arranged in the claim. In my review of Dr. Lin's Ground 1 analysis (Ex. 1003, ¶¶56–81), he draws on disclosures from across Thomas—including Figures 1 and 3, the Figure 5 "sales team" implementation, the Figure 6 "stranger" implementation, the Figure 7 and Figure 8 message flows, and the Figure 9–10 user interface screens—without explaining whether or how those disclosures operate together in a single implementation arranged as claim 1 requires. Thomas itself introduces these disclosures separately, describing each as "an exemplary

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implementation," "an exemplary message flow," "an exemplary block diagram," and the like. Ex. 1005, [0013], [0015]–[0021].

44. I note that Dr. Lin's declaration articulates his understanding of anticipation as follows: "a patent claim is invalid as anticipated if a single piece of prior art teaches every element of the claims." Ex. 1003, ¶27. That statement does not include the requirement, as I understand it, that the elements be disclosed as arranged in the claim in order for anticipation to be satisfied, and consistent with that omission I did not find any analysis in Dr. Lin's declaration addressing whether Thomas's relied-upon disclosures are so arranged. At his deposition, Dr. Lin declined to state whether even Figures 5 and 6 of Thomas belong to the same implementation, noting only that Thomas describes each as "an exemplary implementation in each case." Ex. 2008 at 9:19–12:21, 12:22–13:2. And Thomas does not itself describe each of these teachings as being part of the same embodiment. *See generally* Ex. 1005, [0013], [0015]–[0021] (describing each figure as "exemplary" without saying they relate to the same embodiment).

VIII. Dr. Lin's Ground 2 Analysis (Thomas in View of Sewall) Does Not Cure The Deficiencies Described Above

45. I understand that for the limitations discussed above, Dr. Lin's Ground 2 analysis rests on the same Thomas theory as his Ground 1 analysis. For limitation 1[b], his declaration states that "Thomas discloses 1[b]," incorporating

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his Ground 1 analysis, Ex. 1003, ¶118, and separately states that "[o]ne of skill would recognize that Sewall also discloses 1[b]," Ex. 1003, ¶125. I did not find in paragraphs 118 through 129 of his declaration any explanation of how the "first service policy setting" he attributes to Sewall would be implemented in Thomas—whether it would replace Thomas's authorization mechanism, operate in addition to it, or form some hybrid—or any description of how a combined Thomas-Sewall device would operate to meet the limitation.

46. Dr. Lin's deposition testimony, in which he was asked about this portion of his declaration, confirmed this. Asked what he proposed "would be changed about Thomas' operation with respect to limitation 1B" in the combination, he answered that "for all of the claims where I've offered my opinion that Thomas alone anticipates, my opinion remains the same with respect to here as well," with the combination offering "additional perspective on how Sewall teaches also the claim elements." Ex. 2008 at 48:19–49:10. Asked whether he was "proposing that it would be obvious to change the operation of Thomas," Dr. Lin explained that "both Thomas and Sewall each discloses 1B, offering different perspectives," and, asked how the combined system would operate, answered "they both teach 1B." Ex. 2008 at 49:11–50:16. Asked whether he identified "any motivation to change Thomas' operation with respect to limitation 1B," he answered that "each discloses 1B on their own." Ex. 2008 at 50:17–24.

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47. The same is true for limitation 1[d][iii], which recites the "second service policy setting." Dr. Lin's declaration states that "Thomas discloses 1[d][iii]," Ex. 1003, ¶147, and that "[o]ne of skill would recognize that Sewall also suggests 1[d][iii]" because "it would have been obvious for Sewall's personal hotspot device to include a user-selectable option to enable or disable the forwarding service, just as Thomas discloses and suggests," Ex. 1003, ¶149. That analysis proposes a change to *Sewall* (adding a user-selectable option Sewall's device allegedly lacks), not to Thomas, and it describes the added feature as operating "just as Thomas discloses"—that is, exactly the single-setting mechanism I addressed above. At his deposition, Dr. Lin was asked whether, in his Ground 2 analysis, he proposed "any changes to Thomas that would further arrive at limitation 1D3," and he answered: "I don't believe so. I think Thomas discloses 1D3." Ex. 2008 at 52:25–53:5.

48. As I noted in the Legal Principles section, I understand that obviousness requires more than showing that all limitations can be found across two different references. Instead, obviousness requires identifying how and why a person of ordinary skill would combine or modify the references *to arrive at the claimed invention*, with a reasonable expectation of success. Applying that standard, Dr. Lin's Ground 2 analysis of the limitations discussed above identifies no modification to Thomas to arrive at those limitations, no operation of a

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combined system different from Thomas alone to satisfy those limitations, and no motivation to modify Thomas to arrive at those limitations. Because Dr. Lin's Ground 2 analysis rests on the same single-setting reading of Thomas that fails for Ground 1, in my opinion it does not cure the deficiencies I have described.

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