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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,

PETITIONER,

v.

GENERAL ACCESS SOLUTIONS, LTD.,

PATENT OWNER.

Case No. IPR2023-01147

U.S. Patent No. 9,426,794

PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY

TABLE OF CONTENTS

I.	PALMER DOES NOT DISCLOSE THE CLAIMED WIDE AREA WIRELESS COMMUNICATION PROTOCOL.	1
A.	Palmer Does Not Disclose a Wireless Wide Area Network (WWAN).....	1
B.	Palmer Does Not Disclose a Wide Area Wireless Communication Protocol.....	4
II.	PALMER’S REQUIRED WIRED LAN PROHIBITS PALMER FROM DISCLOSING THE CLAIMED SECOND WIRELESS TRANSCEIVER COUPLED TO A FIRST WIRELESS TRANSCEIVER.....	7
III.	PALMER DOES NOT DISCLOSE THE CLAIMED MONITORING.....	12
IV.	HOHNSTEIN + PALMER DOES NOT DISCLOSE THE CLAIMED WIDE AREA WIRELESS COMMUNICATION PROTOCOL.....	17
V.	HOHNSTEIN + PALMER DOES NOT DISCLOSE THE CLAIMED MONITORING.....	25
VI.	PETITIONER’S PROPOSED COMBINATION WITH MAHANY DOES NOT CURE THE DEFICIENCIES IN PALMER.....	26
VII.	PETITIONER’S PROPOSED COMBINATION WITH AGRAWAL DOES NOT CURE THE DEFICIENCIES IN PALMER, PALMER/MAHANY, AND/OR HONSTEIN.	29
VIII.	CONCLUSION.....	29

TABLE OF AUTHORITIES

Cases

<i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	10
<i>Belden Inc. v. Berk-Tek LLC</i> , 805 F.3d 1064 (Fed. Cir. 2015)	25
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007)	10
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005)	1
<i>TQ Delta, LLC v. CISCO Sys., Inc.</i> , 942 F.3d 1352 (Fed. Cir. 2019)	27

I. PALMER DOES NOT DISCLOSE THE CLAIMED WIDE AREA WIRELESS COMMUNICATION PROTOCOL.

A. Palmer Does Not Disclose a Wireless Wide Area Network (WWAN)

Claim 1 recites “a wireless communication device...wherein the base station communicates with the first wireless transceiver and a plurality of other wireless communication devices *according to a wide area wireless communication protocol*.¹” (EX1001, claim 1.) Thus, Petitioner’s complaints that “protocol” is “a word not used in the ’794 specification” are meritless, as the claims are part of the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). Indeed, the fact that Palmer fails to disclose a WWAN is critical, as without a WWAN, it would not be obvious for a POSA to utilize the claimed “wide area wireless communication protocol.” (EX2007, ¶75.)

As the POR explains, Palmer discloses a network of LANs connected to a wired network, and does not teach utilizing a WWAN. (POR, 14-16, 28-35.) On Reply, Petitioner *first* argues that PO’s argument is faulty because it references Palmer’s Figure 1 embodiment. (Reply, 4.) This argument is frivolous, as the POR demonstrates that neither Palmer’s Figures 1 nor 2 disclose a WWAN. (POR, 14-16, 28-35.)

¹ All emphases added unless otherwise indicated.

Second, Petitioner argues that “a POSA would have understood Palmer’s antennas 32/34 to constitute a WWAN as the term is understood *in the context of the ’794 Patent*,² in which it means no more than having a larger coverage area than a WLAN.” (Reply, 5.) Petitioner provides no support for this statement, which conflicts with Petitioner’s prior complaints that “the ’794 specification does not mention a WWAN.” (Reply, 5; *see also* Reply, 1.) Thus, Petitioner has provided no support for its claim that a POSA would interpret Palmer’s disclosure based on such a narrow interpretation of a WWAN.

Third, Petitioner relies solely on Palmer’s teachings of “providing wireless coverage not only within a building, but also among several buildings or even within a city” as being indicative of a WWAN. (Reply, 5.) In support, Petitioner purports to rely on Dr. Chrissan’s declaration that WANS connect devices “in large geographical areas such as a campus or city.” (Reply, 3.) However, Petitioner warps Dr. Chrissan’s statement, arguing without support that the converse must also be true—that every communication link involving a mobile phone, fixed wireless device, or similar in a large geographical area such as a campus or city must be a WAN. (Reply, 3.) This is false.

In a belated attempt to provide support—lacking from the Petition—for its overly-expansive interpretation of a WAN—Petitioner’s expert cites two new

² Emphasis in Reply.

extrinsic definitions of WAN. (EX1024, ¶¶7-8.) However, these definitions differ—with one of them contradicting the interpretation of Petitioner’s expert—thus making clear that a POSA can only rely on a reference’s own disclosure of whether or not its network is a WAN, rather than extrapolating from characteristics of WANs disclosed in other references.

Notably, in his reply declaration, Petitioner’s expert reproduces a cherry-picked portion of an IBM Dictionary. (Ex. 1024, ¶8 (omitting the underlined, below).) However, the full IBM Dictionary definition states:

wide area network (WAN) (1) A network that provides communication services to a geographic area **larger than that served by a local area network** or a metropolitan area network, and that may use or provide public communication facilities. (T) (2) A data communications network **designed to serve an area of hundreds or thousands of miles**; for example, public and private packet-switching networks, and **national telephone networks**. Contrast with local area network (LAN).

(EX2021, 744.)

Under this definition, Palmer’s campus or city network would *not* be a WAN under either definition, because: 1) “metropolitan” means city-wide, and the definition defines WAN only as something *larger* than a city-wide network, and 2)

an area of “hundreds or thousands of miles” such as a “national telephone network[]” is larger than Palmer’s campus or city network.

Petitioner’s expert also cites the Microsoft dictionary, which defines “wide area network” as “[a] communications network that connects geographically separated areas.” (EX1020, 507.) However, “geographically separated” is vague, such that it could mean between two or three adjacent buildings, or it could mean thousands of miles. Thus, a POSA could not determine whether a reference such as Palmer discloses a WAN based upon this definition. Instead, a POSA would recognize that a WAN is defined by more than geographic span, such that a POSA would look to the terms used in a reference to determine whether a WAN is disclosed. And the terms used by Palmer are clear—Palmer explicitly discloses a LAN with no mention of a WAN or its accompanying protocol. (*See* POR, 14-15.)

B. Palmer Does Not Disclose a Wide Area Wireless Communication Protocol

Petitioner *first* acknowledges that the Petition “cites no evidence” that Palmer discloses the claimed WWAN protocol. Specifically, Petitioner repeats its complaint that “Palmer has at least as much disclosure of protocols as the ’794 [p]atent, which neither uses the word ‘protocol’ in the specification, nor offers a single example protocol.” (Reply, 5-6.)

Second, Petitioner argues that Palmer discloses a WWAN “protocol based on Palmer’s reference to ‘the use of industry standard network protocols by the

wireless media...” (Reply, 4.) Not so. The Reply’s cited portion of Palmer states, in full: “The method would further reduce network connection losses due to the use of industry standard network protocols by the wireless media.” (EX1004, 2:52-55.) However, reviewing Palmer’s disclosure in context, it is clear that Palmer’s discussion of “industry standard network protocols by the wireless media” does not refer to wireless media transmission protocols. Instead, Palmer refers to data networking protocols such as TCP/IP that are carried with the wireless communications.

Indeed, Palmer makes clear that the Reply’s citation to Palmer at 2:52-55 refers back to Palmer’s discussion at 2:26-33, which states:

Under some current implementations, delays in rate shifting and/or roaming within a cell or to a new cell may result in the **loss of a network connection, such as a TCP/IP network connection**, between the wireless communication device and the central host processing unit. When this occurs, the worker must reinitiate a logon sequence to the host, then to the required application, and finally repeat the work that was lost due to the TCP/IP connection loss.

In context, it is clear that the “industry standard network protocol” discussed in Palmer is TCP/IP or a similar network and transport layer data protocol, which is agnostic to any wired, wireless, WAN, LAN or any other communication scheme or protocol. (*See id.*) As Dr. Chrissan explains, Palmer’s discussion of protocols applies only to the local network; Palmer does not describe wireless transmissions

between central antenna 32 and the multiple remote antennas 34 as being standardized, being part of a WWAN, or using a WWAN protocol. (EX2007, ¶84.)

Dr. Chrissan's interpretation of Palmer at 2:52-55 is also consistent with Palmer's only other use of the word "protocol." There, Palmer states: "The wired network 14 media may, for example, consist of an Ethernet, Token Ring, or ATM, and utilize **network protocols such as TCP/IP, SPX/IPX, SNA LU6.2**, as known in the art." (EX1004, 4:31-34.) This confirms that Palmer's two uses of "protocol" are in the context of "network protocols" that refer to network and transport layer data protocols such as TCP/IP, which are common across all WANs/WWANs/LANs/WLANs, and not exclusive to WANs/WWANs or LANs/WLANs themselves.

Second, the Reply alleges that Palmer "teaches that its invention **complements** the protocols," by "using industry standard network protocols with the invention to 'reduce network connection losses.'" (Reply, 6.) Not so. When read in context, as shown above, it is clear that Palmer discloses that industry standard network protocols (such as TCP/IP) are typically used for communication across the wireless connection, and these industry standard network protocols cause network connection losses if the underlying wireless connection has too many errors or dropouts. Therefore, if Palmer's rate shift versus roam (versus do nothing) method is employed, the wireless connection will have fewer errors and

dropouts, resulting in fewer network connection losses. (EX1004, 2:26-33, 52-55.) As such, the “network protocol” that Palmer’s invention “complements” is TCP/IP, or a similar network and transport layer data protocol, not a wireless transmission protocol.

By contrast, Palmer does not state that using industry standard protocols helps to reduce network connection losses (versus not using industry standard network protocols). (*See id.*) In fact, the Reply’s cited portion of Palmer at 2:52-55 would not make sense if it referred to industry standard wireless transmission (WWAN or WLAN) protocols, as it would indicate that those industry standard wireless transmission protocols needed help to avoid network connection losses, without disclosing a method of solving this problem.

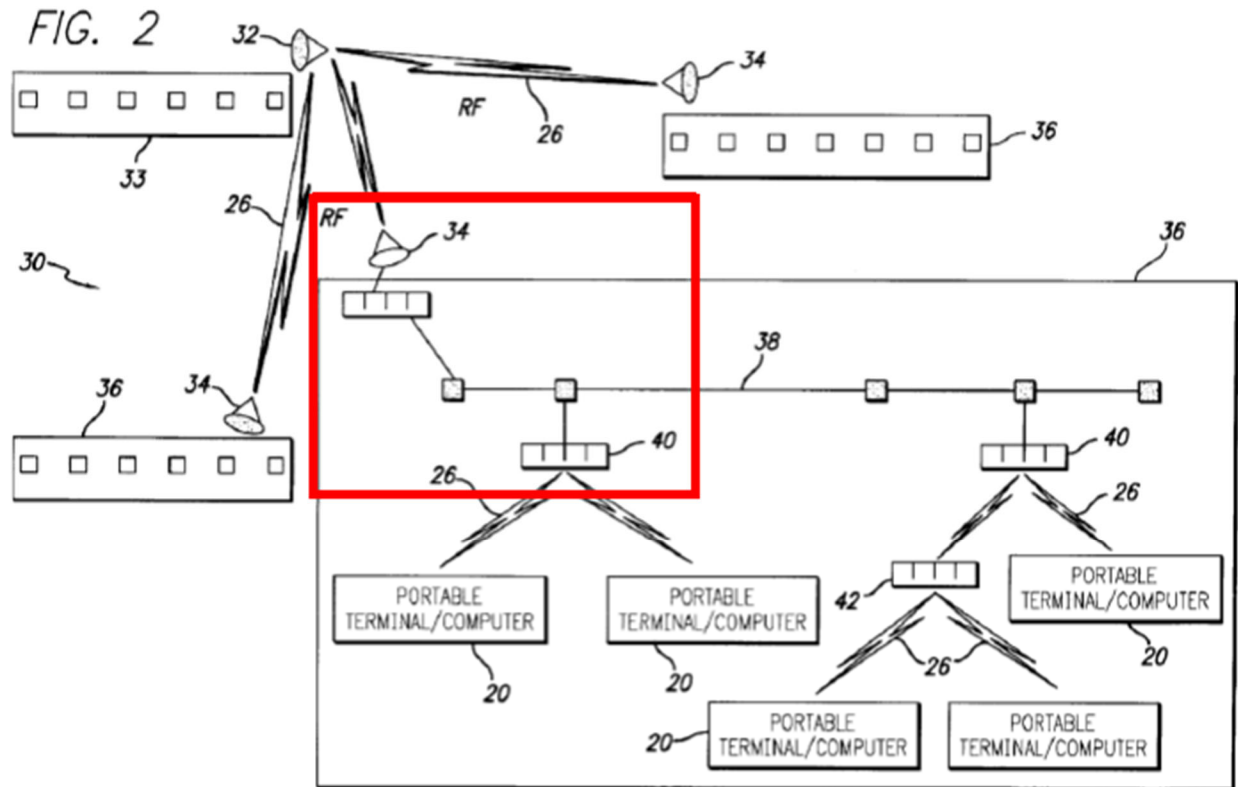
II. PALMER’S REQUIRED WIRED LAN PROHIBITS PALMER FROM DISCLOSING THE CLAIMED SECOND WIRELESS TRANSCEIVER COUPLED TO A FIRST WIRELESS TRANSCEIVER.

The Challenged Claims recite a wireless communication device that comprises a first wireless transceiver coupled to a second wireless transceiver. (EX1001, 10:17–56.) As the POR explains, Palmer does not disclose this claim element because a POSA would “recognize that different devices connected by a wired network 38, i.e., a wired LAN, are in fact different devices, rather than a single device.” (POR, 35-39.) Petitioner’s arguments to the contrary fail.

Dr. Chrissan has explained that “in Palmer, 1) there are *multiple access points* 40 for each remote antenna 34; and 2) access points 40 are *meant* to be spread around the building and to be geographically away from remote antenna 34, as opposed to being co-located. These two reasons *require* there to be a LAN in Palmer, and for the remote antenna 34 to be a distinct device from each access point 40.” (EX2007, ¶80.) In his reply declaration, Petitioner’s expert does not rebut this logic; he only states that he disagrees, but fails to explain why he disagrees, why it would be obvious to remove the LAN, or how removing the LAN would result in a system that still falls within the scope of Palmer’s invention. (EX1024, ¶11.) Petitioner’s expert then seemingly concedes that Palmer does require its disclosed LAN, and argues on the premise of “even accepting Dr. Chrissan’s opinion that a LAN connection between Palmer’s remote antenna 34 and access point 40 is ‘required.’” (EX1024, ¶¶11-13.) Petitioner’s arguments fail for at least four reasons.

First, Petitioner does not dispute that Palmer’s benefit is derived from having “multiple access points 40 for each remote antenna that are meant to be spread around the building and geographically away from remote antenna 34.” (See Reply, 10.) Instead, Petitioner argues that their “proposed combination involves integrating the remote antenna 34 with the left instance of the access point 40 (*i.e.*, the components within the red-annotated box [copied below]), without the

remaining access points 40” for the purpose of “providing the device as a single dual-function product[, which] would have provided a benefit of avoiding the purchase of two separate components.” (Reply, 10-11.)



In essence, Petitioner argues that, if Palmer’s invention involves one remote antenna 34 and ten remote access points 40, the motivation for their proposed combination is to allow a customer to purchase ten devices, instead of eleven, by combining remote antenna 34 with only one remote access point 40. This is *exactly* the type of generalized motivation to combine that the Federal Circuit has rejected. Specifically, in *ActiveVideo*, the Federal Circuit held that a motivation to combine asserting a general desire “to build something better,” “**more efficient, cheaper,**”

that “had more features” or was “**more attractive to [] customers**” “is generic” and thus insufficient to establish obviousness. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012); *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007).

Second, Petitioner’s proposed combination does not remove the wired LAN between box 40 and the unlabeled box connected to antenna 34, so a POSA would not consider remote antenna 34 and access point 40 within the red box to be a single device. (EX2007, ¶¶77-81; POR, 35-39.) Put another way, if two transceivers are so separated that they are two different devices on a wired LAN (as in Palmer), that does not disclose the Challenged Claims. For example, on a typical home LAN network (wired or wireless) that has printers, computers, smart phones and streaming devices connected to it, people do not consider any two of those to be the same device. This is true for all Challenged Claims, including claim 2, which a POSA would understand requires a single wire from one transceiver to

the other, and not a new, wired LAN—with additional devices connected—inserted between the two transceivers.³ (EX2007, ¶89.)

Third, Petitioner’s argument for combining Palmer’s components within one telecommunications rack assembly merely explains how a POSA would achieve the combination set forth in Petitioner’s red box proposed combination, above. (See Reply, 11.) This does nothing to change the fact—which Petitioner does not dispute—that the benefit of Palmer is to have “multiple access points 40 for each remote antenna that are meant to be spread around the building and geographically away from remote antenna 34.” (See Reply, 10.) Further, a wired LAN that connects components within one telecommunications rack assembly is still a wired LAN, with associated additional LAN transceivers and cabling, which a POSA would not consider to be a single wireless communication device. (EX2007, ¶¶77-81.)

³ The Reply’s cite to EX1001, 4:16-26 is irrelevant. This paragraph is located in the Background section of the ’794 patent, and discusses the benefits of using radio connections at all, versus an entirely wireline, i.e. cabled, solution. It does not define nor change what a POSA would understand “wireline” to mean within the context of claim 2. (See EX2007, ¶89.)

Fourth, Petitioner argues that the '794 specification's description of "the first transceiver alone as its own individual 'device' (*i.e.*, integrated access device 24) and the integration of this first transceiver with the second transceiver (*i.e.*, WLAN transceiver 38 as a different 'device'" ("integrated device") contradicts Dr. Chrissan's argument that a "POSA would further recognize that different devices connected by a wired network 38, *i.e.*, a wired LAN, are in fact different devices, rather than a single device." (Reply, 7-8.) Petitioner's argument misses the point of the '794 patent's disclosure of how to assemble an integrated device from multiple originally-separate devices. Describing an invention that effectively integrates two devices into one new device has no bearing on the fact that inserting a wired LAN between two devices prevents these two devices from becoming a single, integrated device. (*See* EX2007, ¶¶77-81.)

III. PALMER DOES NOT DISCLOSE THE CLAIMED MONITORING.

The Challenged Claims each require a "second transceiver" that monitors "signal characteristics" of the LAN devices. (EX1001, claims 1, 6.) The POR explains that Palmer does not disclose this limitation because, among other reasons, Palmer does not disclose (1) that an access point monitors signal characteristics, (2) including signal characteristics of two distinct mobile stations, or (3) based on the first signal characteristics and the second characteristics, directs

information through a specified path to the first mobile station and the second mobile station, respectively, as the Challenged Claims recite. (POR, 40-46.)

Petitioner makes four primary arguments for why Palmer discloses the claimed monitoring, all of which fail.

First, in support of its arguments, Petitioner tries to circumvent the word count limits of its Reply brief by relying heavily on additional arguments included in the reply declaration of its expert. (Reply, 14 (citing EX1024, ¶¶14-22).) But in this declaration, Petitioner’s expert states: “I explain in my Original Declaration that ‘the access point 40 is part of the network and the specific component directly interacting wirelessly with the portable terminals 20 and therefore collecting such measurements.’” (EX1024, ¶14.) However, Petitioner’s expert also describes in his Original Declaration that in Palmer, “[e]ach **access point 40** defines a service area of wireless coverage and **operates as a bridge** between the wireless coverage area and the wired network.” (EX1002, ¶61.) Petitioner’s expert further explains in his Original Declaration:

Palmer’s access point 40 receives the first downlink signal and re-transmits the first downlink signal to the first mobile station as a second downlink signal, again as **access point 40 operates as a ‘bridge’** and therefore ‘forwards packets’ from the remote antenna 34 to the portable terminal 20 by accepting data packets and forwarding them, **consistent with the above-presented dictionary definition for ‘bridge.’**

(EX1002, ¶92.) However, the “above presented dictionary definition for “bridge” states:

Bridge 1. In classic terms, a **bridge** is a data communications device that **connects two or more network segments and forwards packets between them. ...**

Classic bridges are relatively dumb devices, which are fast and inexpensive; **they simply accept data packets**, perhaps buffering them during periods of network congestion, **and forward them.**

(EX1011, 126-27; EX1002, ¶47 (stating that “[g]enerally, a bridge provides pass-through connectivity between the networks”).)

Therefore, by the admission of Petitioner’s expert, Palmer’s access point 40 is a “relatively dumb” device that simply accepts data packets, perhaps buffering them during periods of network congestion, and forwards them. (*See* EX1011, 126-127; EX1002, ¶47.) It is contradictory, then, to now say that an access point 40 collects measurements of any sort, or especially that an access point 40 does any claimed monitoring.

Second, Petitioner’s expert apparently recognizes this contradiction, because he now argues in his reply declaration that an access point 40 “performs the ‘monitoring’ simply by receiving the measurement data before forwarding it towards the administration building 33”—even without reading or analyzing its contents. (EX1024, ¶22.) But this interpretation of “monitoring” is not what a

POSA would understand, nor is it supported by any of the evidence Petitioner's expert cites for this proposition.

Specifically, in support of this statement, Petitioner's expert quotes the '794 patent's disclosure that "[i]n one implementation signal characteristics are measured, or otherwise determined, at the mobile station and results of such measures or determinations of are reported back to the WLAN transceiver and appropriate control circuitry." (EX1024, ¶16.) He then warps the '794 patent's disclosure to opine, "[t]herefore, the '794 patent describes that a WLAN transceiver performs monitoring of a downlink signal simply by receiving measurements taken by the mobile station." (EX1024, ¶17.) But a POSA would understand that the '794 patent's additional requirement that signal characteristics are "reported back to the WLAN transceiver and appropriate control circuitry" means 1) that the WLAN transceiver actually has control circuitry that can process the received data, and 2) the received data that is "reported back" actually terminates in the WLAN transceiver such that it can be processed by the control circuitry. (*See* EX1017, 88:22-89:10.) This is much different than Palmer's access point 40, which Petitioner's expert admits is a simple bridge that only retransmits data it receives without processing or analyzing it. (EX1011, 126-27; EX1002, ¶¶47, 61, 92.) Consequently, a POSA would understand that Palmer's access point 40 does not disclose the claimed "monitor[ing] first signal characteristics of the

second downlink signal of the first mobile station and monitor[ing] second signal characteristics of the second mobile station.”

Petitioner’s expert then attempts to support his warped interpretation of “monitoring” by mischaracterizing Dr. Chrissan’s testimony. Specifically, Petitioner’s expert states that “Dr. Chrissan testified during his deposition that, in his opinion, the device in administration building 33 of Palmer performs the monitoring by ‘receiving’ measurement data for the monitoring operation,” and “even under Dr. Chrissan’s interpretation that a device in administration building 33 performs ‘monitoring’ by receiving measurement data originally measured by portable terminal 20.” (EX1024, ¶¶18,22.) Not so. Dr. Chrissan’s testimony actually states in full:

I think the answer to that is, those units, any unit qualifying as network or central host processor in Palmer's sentence here, it's understood that those would not be directly measuring the Radio Signal 26, but they could collect measurements from Portable Terminal Computer 20 and potentially take other measurements related to the connection quality **and then use those measurements and possibly generate other measurements in some algorithm that was making a choice of rate versus roam.**

(EX1017, 88:22-89:10.) As shown above, Dr. Chrissan does not opine that a device in Palmer’s administration building 33 may perform “monitoring” *only* by receiving measurements from Portable Terminal Computer 20. (*Id.*) Rather, the

monitoring must include *using* those measurements, and possibly even generating other measurements, in an algorithm that is making a choice of rate versus roam. (*Id.*) For example, if a device in Palmer’s administration building 33 received packets but then did nothing with them, or forwarded them blindly to some *other* network, Dr. Chrissan and a POSA would easily recognize that that would not satisfy “monitoring.” (*See id.*)

The additional arguments of Petitioner’s expert that “passing through” is the same as “receiving,” which is the same as “monitoring,” fail for the same reasons as those described above. (*See* EX1024, ¶¶19-22.)

IV. HOHNSTEIN + PALMER DOES NOT DISCLOSE THE CLAIMED WIDE AREA WIRELESS COMMUNICATION PROTOCOL.

On Reply, Petitioner alleges that the ’794 patent “simply incorporates existing cellular technology.” (Reply, 20.) Because, as a POSA would readily recognize, cellular technology is *not* point-to-point like Hohnstein, but rather is point-to-multipoint, Petitioner appears to acknowledge that the ’794 patent—by “incorporating existing cellular technology”—itself requires point-to-multipoint communications. Petitioner’s citation to Dr. Chrissan’s quote from Mahany that “[a]t the time of the ’794 Patent, WANs typically ‘only provide point-to-point communications, use a narrow bandwidth, and often exhibit heavy communication traffic is not to the contrary, as in the same paragraph, Dr. Chrissan stated that “[i]t was against this existing WAN backdrop that cellular wireless networks—typically

designed for voice calls—were evolving to provide more cost-effective, wide-area data services.” (EX2007, ¶36 (quoting EX1006, 3:12-20); Reply, 19 (emphasis omitted).) The ’794 patent’s point-to-multipoint requirement is also embodied in the Challenged Claims, which recite a base station that “communicates with the first wireless transceiver and a plurality of other wireless communication devices according to a wide area wireless communication protocol.” (EX1001, claim 1.) The ’794 patent’s disclosure of a base station 12 communicating in point-to-multipoint cellular network with a plurality of subscriber stations 14 can be seen in the ’794 patent’s Figures 2 and 3, below.

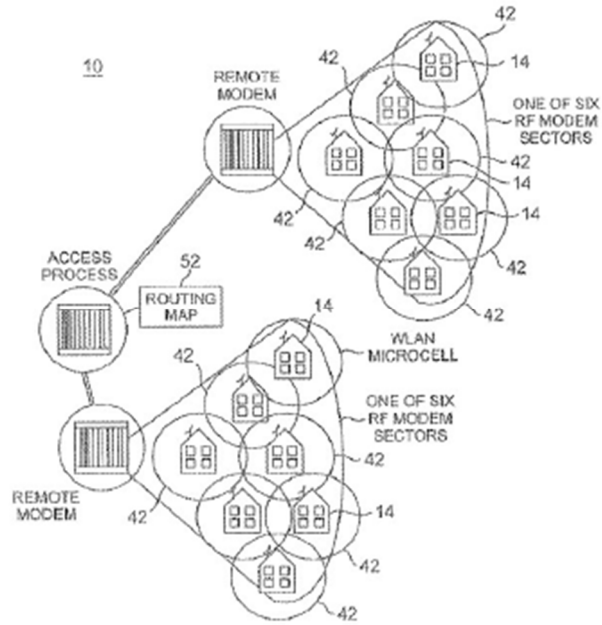
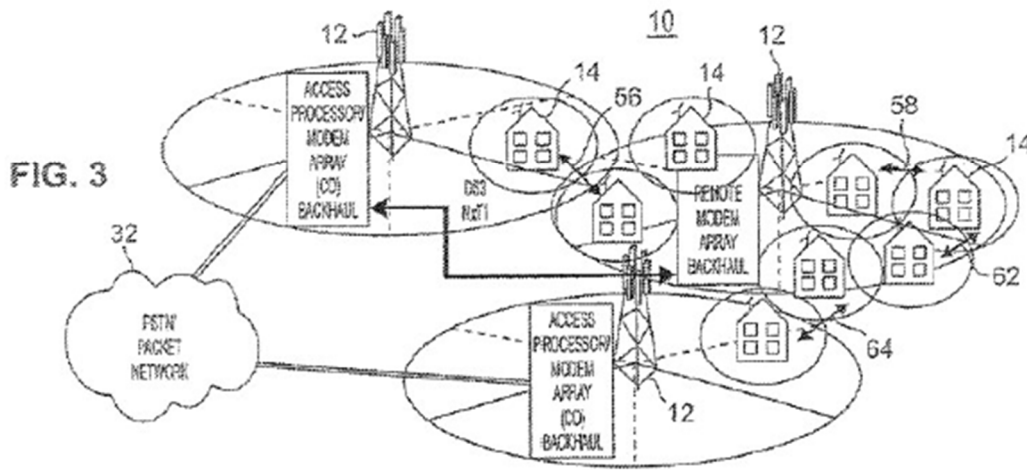


FIG. 2



(EX1001, Figures 2-3; EX2007, ¶55.)

As the POR explains, Hohnstein discloses that each connection from a distribution point 40 to an access point 22 is point-to-point, with each connection to a distinct access point 22 having its own front end (“FE”) interface 100 and

using different protocols, as seen in Hohnstein's Figure 2, below. (POR, 48-51; EX2007, ¶94.)

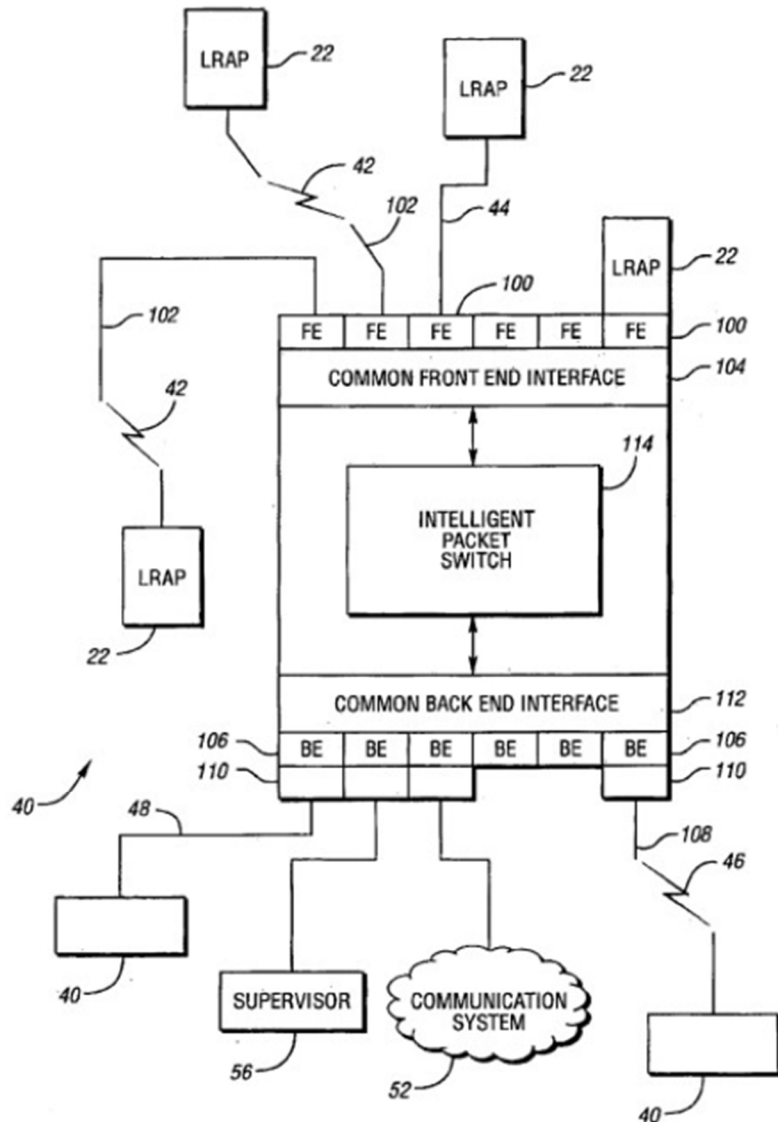


Fig. 2

(EX1005, Figure 2.)

Despite admitting at deposition that Hohnstein's connections from distribution point 40 to access point 22 do not utilize a wide-area communication

protocol, and indeed use different protocols, (EX2014, 28:9-32:14, 34:7-35:5)

Petitioner's expert on reply *first* argues:

Hohnstein uses the same reference numeral 42 to refer to these multiple wireless connections between a distribution point 40 and each of multiple access points 22. A POSA would have understood that if these wireless connections were intended to be limited to different protocols, Hohnstein would have assigned distinct reference numerals for each of these multiple wireless connections and made some statement on the issue.

(EX1024, ¶30.) This is incorrect.

Instead, Hohnstein refers to “42” only as a “radio link” (EX1005, 5:46, 8:41) and makes it clear that each radio link 42 is point-to-point with its own front end. (EX2007, ¶94.) A POSA would understand that Hohnstein's labeling of a radio link “42” between a distribution point 40 and an access point 22 simply means “radio link” and makes no statement about a same or different wide area wireless communication protocol. (See EX2007, ¶94.) As Dr. Chrissan explains, a POSA would be most influenced by the fact that Hohnstein *explicitly* explains (at EX1005, 8:34-36) and draws (in Figure 2) the radio links 42 as each having its own front end 100. (*Id.*) If the radio links 42 in Hohnstein used a single wide area wireless communication protocol, a POSA would expect to see them use a common front end, as a cellular modem does in Figure 2 of the '794 patent when

spanning a pie-shaped “ONE OF SIX RD MODEM SECTORS,” as shown above.
(See EX2007, ¶¶94-95.)

Second, Petitioner’s expert additionally argues that, regarding the radio links 42, “[a] POSA would have understood that if these wireless connections were intended to be limited to different protocols, Hohnstein would have assigned distinct reference numerals for each of these multiple wireless connections and made some statement on the issue.” (EX1024, ¶30.) But Petitioner’s expert cannot reconcile this opinion that reference numbers are indicative of protocols used with his additional (albeit incorrect) opinion that two types of radio links to which Hohnstein actually *does* assign distinct reference numerals (backhaul 46 and access 42) somehow use the same protocol. (See EX1024, ¶31.)

In addition to Hohnstein’s a distribution point 40 and an access point 22 not utilizing a single protocol, the POR establishes that Hohnstein also does not utilize the claimed “wide area wireless communication protocol.” (POR, 47-57.) Like Palmer, in its description of Figure 2, Hohnstein only discusses packet protocols, e.g. ATM, TCP/IP, 802.x, which are common to and agnostic of wireless versus wired or LAN versus WAN. Hohnstein does not mention a “wide area wireless communication protocol” or any wireless communication protocol. (EX1005, 8:32-67.)

Third, Petitioner’s expert mischaracterizes Dr. Chrissan’s argument in order for Petitioner to incorrectly argue that Hohnstein’s wireless links are WAN links because they are microwave links. (Reply, 20.) Specifically, Petitioner’s expert argues that “Dr. Chrissan opines that Hohnstein’s disclosed wireless links 42 between distribution point 40 and access points 22 are microwave links and therefore do not utilize a wide area wireless communication protocol.” (EX1024, ¶26.)” This is incorrect.

The passage that Dr. Chrissan asserted “emphasizes that the links are point-to-point microwave links” does not mention Hohnstein’s wireless links 42 at all. (EX2007, ¶107.) Instead, in ¶107, Dr. Chrissan only rebuts the assertion by Petitioner’s expert in EX1002, ¶¶140-141 that Hohnstein’s **backhaul** wireless links **46** (not 42)⁴ are part of the Internet simply because Hohnstein describes them as “backhaul communication,” and therefore, as part of the Internet, they must “involve[] wide area networks and communication protocols.” (*Id.*) Moreover, Dr. Chrissan has never provided an opinion on a cause and effect between microwave

⁴ In EX2007, ¶107, Dr. Chrissan rebuts Petitioner’s expert’s citation to Hohnstein at 8:49–55 and 16:15–21, where Hohnstein is only discussing the backhaul and radio links **46**, not the radio links 42 between a distribution point 40 and access points 22.

links and wide area wireless communication protocols. Thus, because Petitioner's expert also does not provide an opinion that Hohnstein's wireless links 42 are microwave links, there is no evidence in the record that Hohnstein's wireless links 42 are microwave links, such that Petitioner's microwave link-based arguments are irrelevant. (See EX1024, ¶¶26-27 (Petitioner's expert asserting that "Dr. Chrissan opines that Hohnstein's disclosed wireless links 42...are microwave links," and stating "[e]ven accepting that the wireless links 42 are microwave links," without providing his own opinion that Hohnstein's wireless links 42 are microwave links).)

Finally, at EX1024, ¶31, and in contrast to EX1024, ¶26 discussed above, Petitioner's expert acknowledges that Dr. Chrissan's opinion is that Hohnstein's wireless link **46, not 42**, is a microwave link. (EX1024, ¶31.) Here, Petitioner's expert opines that "under Dr. Chrissan's opinion that Hohnstein's wireless link 46 is a microwave link, a POSA would have understood that in Hohnstein then, the same type of microwave links **may be used** to form wireless links 42. Hohnstein lacks any suggestion that multiple microwave links would be different protocols, let alone limited to different protocols." (EX1024, ¶31.) But Hohnstein explicitly differentiates radio links 46 as backhaul links, and radio links 42 as links between distribution points 40 and access points 22. Specifically, Hohnstein's discussion of backhaul links, e.g., "[t]ypical backhaul frequencies include 6, 11, 18 and 23 GHz

licensed bands for DS3/OCS transmission and 5.8 and 24 GHz for unlicensed ATM-25 transmission,” is both separate and different from Hohnstein’s discussion elsewhere of access links. (*See* EX1005, 16:15–21, *passim*.) Given this, a POSA would not understand that a wireless protocol used for a backhaul radio link 46 would be re-used for a radio link 42. Moreover, the opinion of Petitioner’s expert that the links used for wireless links 46 “may be used to form wireless links 42” is insufficient to establish that a POSA would have been motivated to alter Hohnstein’s wireless links 42 in this manner, particularly given Hohnstein’s disparate treatment of the two types of wireless links. *See Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (holding that “obviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.”) (emphasis in original).

V. HOHNSTEIN + PALMER DOES NOT DISCLOSE THE CLAIMED MONITORING.

On Reply, Petitioner argues, just as in Palmer, that “Hohnstein’s monitoring matches that of the ’794 [p]atent,” while again incorrectly alleging that “the only example in the ’794 [p]atent specification of a transceiver performing ‘monitoring’ is likewise where a mobile station reports measurements to the transceiver.” (Reply, 27.) Specifically, Petitioner alleges that Hohnstein’s access point 22 merely “perform[s] a handoff operation of the subscriber unit 26 to another access

point,” and forwards packets intended for subscriber unit 26 back into distribution point network 41 and onward to the new access point. (Reply, 28.) This is no more than the “monitoring” that Petitioner alleged with respect to Palmer, and so does not disclose the claimed “monitoring” for the reasons set forth in Section III., above.

VI. PETITIONER’S PROPOSED COMBINATION WITH MAHANY DOES NOT CURE THE DEFICIENCIES IN PALMER.

First, Petitioner alleges that the Petition speaks for itself by alleging that Mahany discloses distinctive WLAN and WWAN protocols simply because Mahany describes transceiver circuitry 4803 being a wireless “LAN” transceiver circuit while transceiver circuit 4807 being a wireless “WAN” transceiver circuit.” (Reply, 30.) But it is not enough that Mahaney discloses an optional WAN and required LAN. Rather, Mahany does not explain that the device shown in Figure 48 is a pass-through device, i.e., data does not pass between the optional WAN and required LAN, as claimed. Instead, Mahany discloses data in Mahany’s Figure 48 originates/terminates in the device using the LAN or WAN. (See EX1006, 9:7-12, 75:11-14.)

Second, Petitioner asserts that its arguments for incorporating Mahany’s base station teachings into Palmer are sound because it merely proposes incorporating “concepts of base station architecture.” (Reply, 30.) But as explained in the POR and above, although Mahany discloses that the block in Figure 48 is a

base station, it does not disclose the claimed base station (or wireless communication device) because Mahany does not explain that device shown in Figure 48 is a pass-through device. (*See* EX1006, 9:7-12, 75:11-14.) Thus, incorporating the concepts of base station architecture, as disclosed in Mahany, still does not disclose the claimed base station or wireless communication device. Further, because Petitioner’s allegations with respect to configuring “Palmer’s central antenna 32 as a ‘base station’ (*e.g.*, using a cellular network) based on Mahaney’s teachings” wholly fail to allege that a POSA would have had a motivation to combine these teachings, Petitioner’s allegations fail as a matter of law. *See TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1359 (Fed. Cir. 2019) (Accordingly, “a conclusory assertion with no explanation is inadequate to support a finding that there would have been a motivation to combine because this type of finding, without more, tracks the *ex post* reasoning *KSR* warned of and **fails to identify any actual *reason* why a skilled artisan would have combined the elements in the manner claimed.**”) (cleaned up).

Third, Petitioner argues that “Mahany does not ‘disparage[]’ WAN networks. Mahany simply notes general limitations of using a WAN, which the ’794 [p]atent itself acknowledges.” (Reply, 29.) In so arguing, Petitioner fails to acknowledge that Mahany states, “While permitting such transmissions, wide area networks (WANs) only provide **point-to-point** communications, use a narrow

bandwidth, and often exhibit heavy communication traffic. Moreover WANs require relatively higher transmission power—a negative factor in the ever increasing need for power savings associated with portable transceiving devices. As a result, **WANs are generally slow and expensive. and simply do not provide an effective overall solution.**” (Reply, 29; EX1006, 3:9-20.) A POSA would find nothing like this disclosure from Mahany in the ’794 patent’s description of its base station 12 or the set of remote modems thereof. Therefore, a POSA can easily see that Mahany does in fact disparage WANs significantly more than the ’794 patent does, and that Mahany’s WAN is a different communication system than the claimed base station and associated “wide area wireless communication protocol.” (EX2007, ¶¶122, 124.) In addition, Mahany explicitly characterizes WANs as point-to-point, whereas, as described in Section IV., above, the Challenged Claims are clearly point-to-multipoint using a single wide area wireless communication protocol. For these reasons, a POSA would not have been “motivated to incorporate the integration of WLAN and WWAN transceivers taught by Mahany, applied towards Palmer’s remote antenna 34 and an individual access point 40 as Petitioner’s expert argues. (EX1024, ¶37.)

VII. PETITIONER’S PROPOSED COMBINATION WITH AGRAWAL DOES NOT CURE THE DEFICIENCIES IN PALMER, PALMER/MAHANY, AND/OR HONSTEIN.

For the reasons discussed in the POR, Petitioner fails to allege that Agrawal monitors signal characteristics, such that Agrawal does not cure at least this element of Petitioner’s proposed combinations. (POR, 69-70.) Further, a POSA would not have been motivated to combine Agrawal with Palmer or Hohnstein. (POR, 68-72.)

VIII. CONCLUSION

GAS requests the Board confirm the Challenged Claims of the ’794 patent are patentable.

Dated: September 23, 2024

Respectfully submitted,

/Sarah E. Spires/

Sarah E. Spires (Reg. No. 61,501)

SKIERMONT DERBY LLP

1601 Elm Street, Suite 4400

Dallas, Texas 75201

Tel: (214) 978-6600

Fax: (214) 978-6601

sspires@skiermontderby.com

Lead Counsel for Patent Owner

Michael J. Valaik (*pro hac vice*)

BARTLIT BECK LLP

54 W. Hubbard Street, Suite 300

Chicago, IL 60654

Tel: (312) 494-4400

michael.valaik@bartlitbeck.com

Nosson D. Knobloch (*pro hac vice*)

BARTLIT BECK LLP

1801 Wewatta Street, Suite 1200

Denver, CO 80202

Tel: (303) 592-3100

nosson.knobloch@bartlitbeck.com

Back-Up Counsel for Patent Owner

CERTIFICATE OF WORD COUNT

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the Microsoft Office word count for the foregoing Patent Owner's Sur-Reply under 37 C.F.R. § 42.23, excluding the table of contents, table of authorities, claim listing, certificate of word count, and certificate of service, totals 5,595 words, which is less than the 5,600 words allowed under 37 C.F.R. § 42.24(c)(1).

Dated: September 23, 2024

/Sarah E. Spires/

Sarah E. Spires (Reg. No. 61,501)
SKIERMONT DERBY LLP
1601 Elm Street, Suite 4400
Dallas, Texas 75201
Tel: (214) 978-6600
Fax: (214) 978-6601
sspires@skiermontderby.com
Lead Counsel for Patent Owner

Michael J. Valaik (*pro hac vice*)
BARTLIT BECK LLP
54 W. Hubbard Street, Suite 300
Chicago, IL 60654
Tel: (312) 494-4400
michael.valaik@bartlitbeck.com

Nosson D. Knobloch (*pro hac vice*)
BARTLIT BECK LLP
1801 Wewatta Street, Suite 1200
Denver, CO 80202
Tel: (303) 592-3100
nosson.knobloch@bartlitbeck.com
Back-Up Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Patent Owner's Sur-Reply was served on September 23, 2024, by delivering a copy via electronic mail to the attorneys of record for the Petitioner as follows:

VerizonIPR@venable.com

Justin J. Oliver
USPTO Reg. No. 44,986
VENABLE LLP
joliver@venable.com

Stephen K. Yam
USPTO Reg. No. 64,927
VENABLE LLP
syam@venable.com

Brian Rosenthal (*pro hac vice*)
GIBSON, DUNN & CRUTCHER LLP
brosenthal@gibsondunn.com

Dated: September 23, 2024

Respectfully Submitted,

/Sarah E. Spires/

Sarah E. Spires (Reg. No. 61,501)
Lead Counsel for Patent Owner