

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHARTER COMMUNICATIONS, INC.,
Petitioner

v.

ADAPTIVE SPECTRUM AND SIGNAL ALIGNMENT, INC.,
Patent Owner

Case IPR2025-00012
U.S. Patent No. 10,848,398

**PATENT OWNER PRELIMINARY RESPONSE
UNDER 37 C.F.R. § 42.107(a)**

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	First Amended Docket Control Order [40], <i>Adaptive Spectrum and Signal Alignment, Inc. v. Charter Communications, Inc., et al.</i> , Case No. 2:24-cv-00124, (E.D. Tex.) filed October 10, 2024
2002	Defendant's Invalidity Contentions and Subject Matter Eligibility Contention, <i>Adaptive Spectrum and Signal Alignment, Inc. v. Charter Communications, Inc., et al.</i> , Case No. 2:24-cv-00124, (E.D. Tex.) November 1, 2024
2003	<i>Charter Comms., Inc. v. Adaptive Spectrum and Signal Alignment, Inc.</i> , IPR2024-01379, Paper 1 (Petition), September 17, 2024.
2004	Lex Machina – U.S. District Court for the Eastern District of Texas and District of Colorado, Patent Cases Timing
2005	Patent Family and Continuity Data for U.S. Patent No. 7,408,907 to Diener
2006	International Publication No. WO 2012/177705 to Shaffer <i>et al.</i>

I. INTRODUCTION

U.S. Patent No. 10,848,398 (“the ’398 patent”) claims innovative and non-obvious methods that improve wireless communications performance between an access point and communication units. At the time of invention more than a decade ago, prior art systems relied on static adaptation algorithms. These algorithms were preloaded into access points to adapt transmission strategies to counter rapidly varying wireless channel characteristics. While access points adapted to changing channel characteristics dynamically by applying the algorithms, the adaptive algorithms themselves were static—loaded into device firmware by a system designer.

The ’398 patent inventor recognized the shortcomings of loading static algorithms and invented an improved approach that dynamically determined policies for applying adaptive algorithms based on performance feedback from communication units. This approach included gathering real-time operational data from many communication units to dynamically produce a policy. Such a policy would then be sent to a communication unit to enable the unit to make decisions and take actions best adapted to the varying wireless channel characteristics.

Petitioner fails to demonstrate that any challenged claim is reasonably likely to be found unpatentable. Petitioner relies on Diener in Ground 1 in a single reference obviousness ground. Recognizing the shortcomings of Diener, Petitioner

hedges its bet by presenting Ground 2, which combines Diener with Shaffer.

However, both Diener and Shaffer disclose systems that are akin to those discussed in the background section of the '398 patent, which describes shortcomings in prior art systems. So, not surprisingly, neither reference—even if considered in combination—discloses key limitations within the independent claims. These limitations include: (1) “*receiving, by a server, from network monitoring devices that monitor, in real-time, data associated with an operation of two or more communication units located in different geographical areas*” to determine a policy and (2) “*communicating the policy to at least one or more communication units that implement one or more algorithms... to improve [the] performance of the one or more communication units.*”

Additionally, with respect to independent claims 11 and 20, Petitioner fails to demonstrate how the prior art discloses the limitation of “*in response to the server detecting the absence of an interference or noise from nearby wireless channels, determining that packets will be lost regardless of rate selection*” (“lost packets limitation”). Petitioner appears to have overlooked or misapprehended this limitation. In fact, Petitioner provides no citations or arguments identifying how Diener discloses “*determining that packets will be lost*” “*in response to...detecting the absence of [] interference or noise.*” This apparent oversight impacts **more**

than half of the challenged claims. As such, the Board should deny institution on this basis alone.

But the Board does not even need to reach the merits because the facts and circumstances here warrant denying institution under Section 314(a). Most notably, trial in the co-pending litigation is scheduled to occur *more than seven months before* a Final Written Decision will issue.

In sum, Petitioner failed to meet its burden of demonstrating a reasonable likelihood that any challenged claim will be found unpatentable. Furthermore, at a minimum, Petitioner simply overlooked a key limitation—the “lost packets limitation”—impacting more than half of the challenged claims, making it impossible for Petitioner to demonstrate that those claims are unpatentable. For these reasons, the Board should deny this Petition. Alternatively, the Board can simply use its discretion under Section 314(a) to deny the Petition.

II. PERSON OF ORDINARY SKILL IN THE ART (POSA)

For purposes of this Preliminary Response, Patent Owner applies Petitioner’s level of skill for a person of ordinary skill in the art (POSA). Pet., 11.

III. CLAIM CONSTRUCTION

For purposes of this Preliminary Response, Patent Owner agrees the *Phillips* standard applies. Patent Owner reserves the right to contest Petitioner’s implicit or explicit constructions during the proceeding.

IV. PETITIONER FUNDAMENTALLY MISUNDERSTANDS THE '398 PATENT AND THEREFORE PROVIDES AN INCOMPLETE AND ERRONEOUS ANALYSIS OF THE CLAIMS

The '398 Patent describes a novel way of optimizing the performance of a communication unit by gathering data from “hundreds (or even millions) of similarly situated communication units” and generating a policy that provides instructions for implementing a particular adaptation algorithm. EX1001, 4:2-18, 5:34-37, 7:34-53, 8:4-18. A remote server loads the generated policy into a communication unit so that the communication unit can autonomously determine and perform an action, such as “run/execute adaptation algorithms... to cope with real-time variations in link channel, noise, interference, and other factors that affect the communication performance.” *Id.*, 3:63-4:18. Petitioner fails to adequately acknowledge this clear description of the '398 Patent's purpose and therefore arrives at erroneous conclusions regarding the claims, the cited references, and the grounds applied in the Petition.

A. The Problem and Solution Presented in the '398 Patent

As the '398 Patent explains, one problem in the art was the use of “static” adaptation algorithms that were preloaded into WiFi communication systems, such as access points (“APs”). EX1001, 1:64-2:13, 4:47-56. Because static adaptation algorithms relied on “static assumptions that do not change over time,” WiFi

communication systems would “suffer from low performance due to [a] non-ideal design of the static adaptation algorithm.” *Id.*, 1:64-2:13, 4:47-56. This would significantly impact performance in “large-scale deployment where many communication devices, such as AP’s, independently operate.” *Id.*, 2:14-20.

To address this problem, the ’398 patent introduced a novel way to optimize performance of a communication unit (e.g., an AP in a WiFi system) by having a remote server analyze data from “hundreds (or even millions) of similarly situated communication units.” EX1001, 4:2-18, 5:34-37, 7:34-53, 8:4-18. This includes analyzing a “large amount of operational data” along with “historical data” from these many communication units. *Id.*, 4:2-18, 4:57-5:10, 7:34-53. With this data gathered from many different communication environments, a remote server is able to generate “the best policy to achieve optimal performance efficiency.” *Id.*, 4:2-18, 7:34-53. The remote server then loads this policy into the communication unit for execution. *Id.*, Abstract, 2:64-3:9, 4:13-18.

The provided policy “comprises rules and/or conditions for operation of the one or more communication units.” *Id.*, 8:4-6, 15:56-65. Notably, this policy supplies a rule or condition, and then the communication unit can autonomously “implement the policy according to time-varying data” that the communication unit gathers. *Id.*, Abstract, 2:64-3:9, 3:34-55, 4:57-65, 8:4-14, 15:38-42.

Implementing such a policy optimizes the performance of the communication unit

when the communication unit implements an algorithm for wireless communications. *Id.*, 1:19-22, 2:64-3:9, 4:13-18, 4:42-44, 4:57-65, 7:48-53, 15:54-63.

B. The '398 Patent's Contextual Environment and Different Geographical Areas

To provide a contextual example of the novel process described in the '398 patent, Figure 2 depicts a “WiFi communication system 200.” EX1001, FIG. 2, 6:27-48. The WiFi communication system 200 includes access point (AP) 201, which provides localized WiFi access to stations 202 via WiFi signals 211. *Id.*

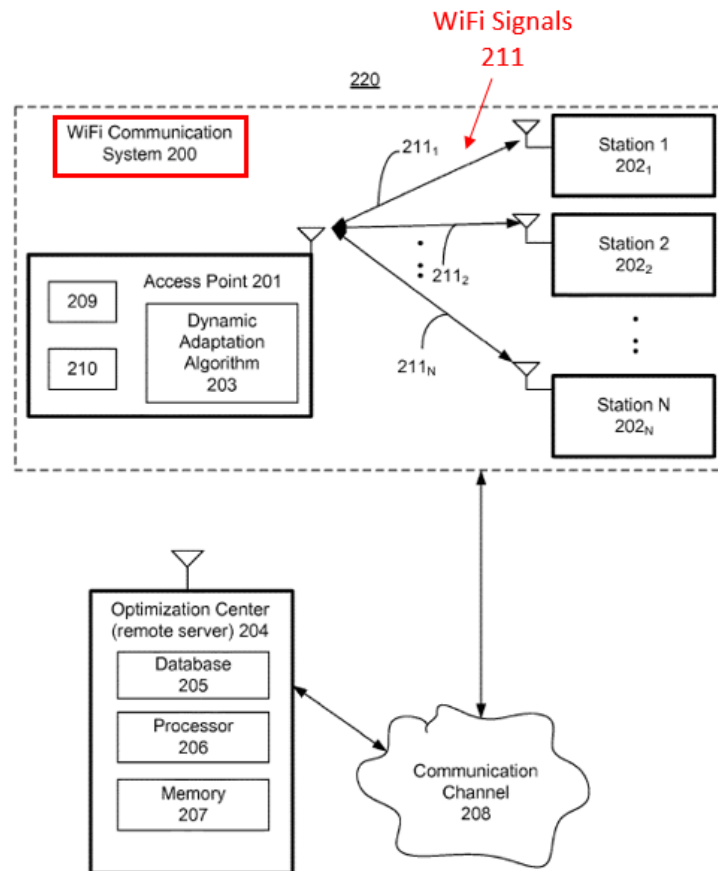


FIG. 2
EX1001, FIG. 2 (annotated).

The '398 patent explains that while FIG. 2 depicts one AP 201, “multiple APs may be used in the WiFi communication system 200” to provide the localized WiFi network and WiFi signals 211. EX1001, 6:42-48. To provide this network, the AP may be “a wireless Local Area Network (LAN) device,” “a wireless WiFi compatible base station,” “an Ethernet connected router,” or other similar device. *Id.*, 6:60-7:14.

Separate from the localized WiFi network depicted in Figure 2, the '398 patent explains that remote server 204 obtains operational data from many other WiFi networks located in “different geographical areas.” *Id.*, 7:48-60, 8:30-37. The remote server analyzes “similarly situated communication systems” including APs from “other similar geographical localities.” *Id.*, 7:48-60, 10:37-41. The remote server gathers and stores this operational data in a database for analysis when determining the best policy for a particular AP. *Id.*, 9:15-25, 10:34-41.

In this manner, the remote server gathers operational data across many different networks operating in different geographical locations so that it can build a wide knowledge base of historical data. *Id.*, 4:9-18, 4:57-5:10, 7:34-60, 10:34-41. Using this historical data, the remote server can flexibly generate the policy that optimizes performance for a particular AP when needed. *Id.*, Abstract, 1:19-22, 2:64-3:9, 4:13-18, 4:42-44, 7:48-53, 15:54-63.

C. Communicating a Policy Includes Communicating Rules and Conditions for Decision-Making at the Communication Unit

As the '398 patent explains, the remote server determines the best policy for optimizing performance and communicates this policy to a communication unit (e.g., an AP). EX1001, Abstract, 1:19-22, 2:64-3:9, 4:13-18, 4:42-44, 7:48-53, 15:54-63. A “policy comprises rules and/or conditions for operation of the one or more communication units” and provides instructions for decision-making occurring at the communication unit (e.g., whether to implement a particular algorithm to optimize performance). *Id.*, 8:4-6, 15:56-65. To illustrate the interaction between a policy, one or more algorithms, and a rule or a condition, the '398 patent describes an example AP that is capable of implementing different algorithms. *See generally id.*, 7:24-10:22.

For example, an AP may implement “first and second algorithms.” EX1001, 3:25-27, 3:60-62, 8:4-11, 8:19-67, 9:19-10:22. The '398 patent describes two such example algorithms. *Id.*, 9:27-38. “[T]he first algorithm comprises: monitoring received signal strength indication (RSSI); and adapting a data rate according to a mapping of the RSSI from a lookup table.” *Id.*, 9:27-30. To implement the first algorithm, the '398 Patent provides Table 1, which maps an RSSI value that an AP may measure to a particular data rate. *Id.*, 10:1-13.

TABLE 1

RSSI to rate mapping for first algorithm	
RSSI value	Rate
-92 dBm or below	6 Mbps
-92 dBm~-90 dBm	9 Mbps
-90 dBm~-88 dBm	12 Mbps
-88 dBm~-86 dBm	18 Mbps
-86 dBm~-84 dBm	24 Mbps
-84 dBm~-82 dBm	36 Mbps
-82 dBm~-80 dBm	48 Mbps
-80 dBm or above	54 Mbps

EX1001, 10:1-13 (Table 1; annotated).

As seen from Table 1, the first algorithm may be a mapping of a measured RSSI value to a particular data transmission rate. EX1001, 9:27-30, 9:62-10:13.

The second algorithm is based on counting a number of successful or failed transmissions. *Id.*, 9:30-38, 10:18-33. The second algorithm adjusts the data transmission rate when a number of consecutive successful transmissions “exceeds a first threshold” or when the number of failed transmissions “exceeds a second threshold.” *Id.*, 9:30-38.

In view of these or other algorithms, a remote server generates a “policy” that includes “rules and/or conditions” that provide an AP with instructions to determine what action to take, including whether to execute a particular algorithm. *Id.*, Abstract, 1:19-22, 2:64-3:9, 4:13-18, 4:42-44, 7:48-53, 8:4-6, 15:54-65. For example, the remote server analyzes “operational information and historical data... to generate *conditions for when to implement one of the first and second*

algorithms.” Id., 9:15-21 (emphasis added). In this example, “remote server 204 selects one of the first or second algorithms for the communication units... to achieve optimal performance efficiency.” *Id.*, 9:44-49. The first or second algorithms may have been pre-loaded into an AP or the remote server may provide an algorithm to the AP when providing the policy. *Id.*, 8:4-18, 8:47-67. The conditions included in the policy may include choosing the first or second algorithm based on, for example, the “current time,” “operational data,” “location information,” or a “Signal to Noise and Interference Ratio” (SNIR). *Id.*, 8:4-18, 9:1-14. “The rules may include equations, [which] when executed in the algorithms, will change how the conditions are evaluated by the algorithms.” *Id.*, 9:10-14.

In this manner, “[t]he rules and conditions specify the characteristics of the real-time and historical operational data such that ***the communication unit can select and use the most desired adaptation algorithm.***” *Id.*, 4:61-65 (emphasis added). The particular communication units or APs “execute[] their respective policies by implementing one of first and second algorithms based on the rules and/or conditions and time-varying data.” *Id.*, 8:41-46, 15:54-65. The AP measures its own “time-varying data” and then adapts its own data transmission scheme according to the received policy. *Id.*, Abstract, 2:64-3:9, 3:34-55, 8:4-14, 8:19-67, 15:38-63. As the ’398 patent explains, the policy that the remote server

communicates to the AP enables the AP to determine a course of action to optimize performance based on the time-varying data that the AP itself measures.

Id., Abstract, 2:64-3:9, 3:34-55, 8:4-14, 8:19-67, 15:38-63.

D. Overview of the Claims

The concepts of obtaining operational data from networks operating in differential geographical areas, providing a policy that includes rules or conditions for communication units to use when optimizing performance, and other novel concepts are reflected in independent claims 1, 11, and 20. EX1001, Claims 1, 11, and 20.

For example, claim 1 recites a server receiving operational data corresponding to “two or more communication units *located in different geographical areas.*” *Id.*, Cl. 1 (emphasis added). The server processes this operational data along with historical data to determine a “policy for at least one of the two or more communication units.” *Id.* The server then can “detect[] interference or noise from nearby wireless channels” and “determine that packets will be lost regardless of rate selection.” *Id.* Otherwise, the server communicates the policy and a “rule or a condition” to a communication unit, where the communication unit implements “one or more algorithms” and uses the rule or condition to improve performance. *Id.*

As explained in the specification, the “rules and conditions were previously

not conceivable by the communication system... due to lack of information and processing power needed to generate the rules and conditions.” *Id.*, 5:17-33, 8:37-41. Rather, the remote server provides the policy and the rules and conditions to the communication unit so that it can execute the policy by implementing an algorithm “based on the rules and/or conditions and time-varying data.” *Id.*, 8:19-24, 8:41-46, 15:54-65.

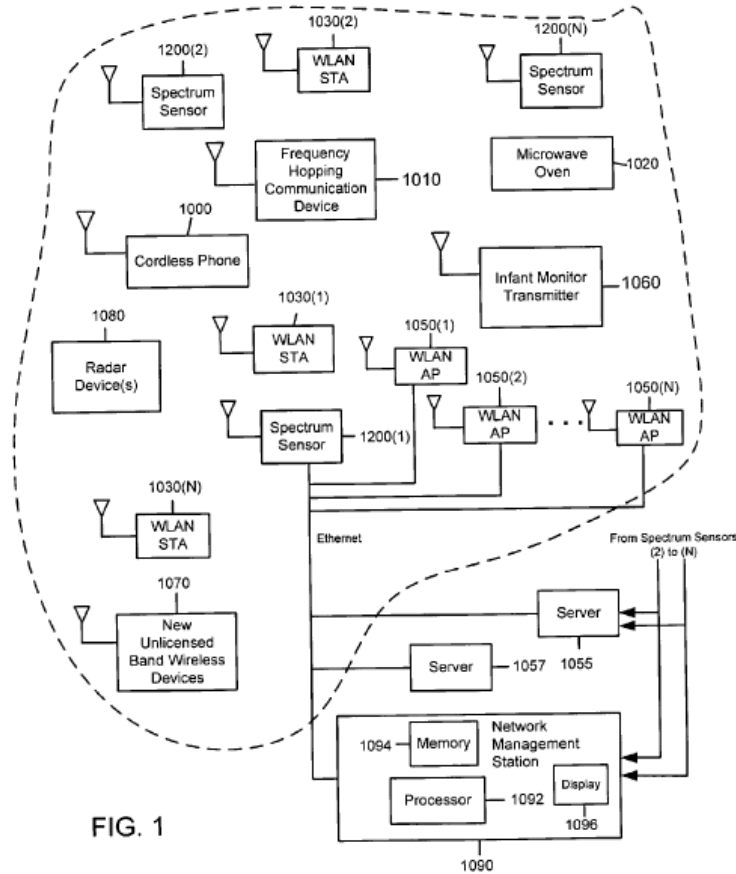
Relative to claim 1, independent claims 11 and 20 recite similar features related to gathering data from “communication units located in different geographical areas” and “communicating the policy” to communication units. Claims 11 and 20 also indicate that the communication units “implement one or more algorithms based on at least a rule or a condition to improve [] performance.” *Id.*, Claims 11, 20. In contrast to claim 1, claims 11 and 20 alternatively recite “detecting the absence of an interference or noise from nearby wireless channels.” *Id.* In response to detecting the absence of interference, the claims recite determining that packets will still be “lost regardless of rate selection.” *Id.*

V. OVERVIEW OF THE CITED ART

A. Diener

Diener is directed to a system and method for managing wireless devices that operate in a shared “radio frequency band” based on their location in a shared “region.” EX1003, Abstract; 2:7-14; 3:49-53, 6:2-7. As seen from Figure 1, Diener

depicts a network that includes these wireless devices within the region (dotted-line). *Id.*, 6:5-7.



EX1003, FIG. 1.

As depicted in FIG. 1, Diener describes several wireless local area network (WLAN) access points (APs) and client stations (STAs), which may communicate using the IEEE 802.11 WiFi standard. EX1003, 1:37-45, 6:8-15. Other devices in the region may include a “cordless phone 1000,” “microwave oven 1020,” and “infant monitor transmitter 1060,” which suggest a localized network within a

household. *Id.*, FIG. 1, 5:65-6:36. The operation of these and other wireless devices in the region and may cause interference in the shared “radio frequency band” because the devices are “sufficiently close in proximity to each other.” *Id.*, Abstract, 5:40-48, 6:2-18, 74:45-61.

To address this interference, Diener describes the WLAN APs and other frequency “spectrum sensors” monitoring the network and recording spectrum activity information, which is then reported to a “network management station 1090.” *Id.*, 6:58-62; 8:46-50. Based on the received information, the “network management station” classifies the signals and then executes a corresponding policy. *Id.*, 6:58-62, 9:22-10:18, FIG. 5. By executing the policy, the “network management station” determines controls or “spectrum actions” that are applied to the WLAN APs or other network devices to mitigate the localized interference. *Id.*, 9:55-10:2. Examples of the controls performed by the “network management station” include:

[A]ssigning a device to a different frequency sub-band or channel in the frequency band (dynamic frequency selection—DFS), network load balancing (on the basis of channel frequencies or time), adjusting the transmit power (transmit power control—TPC), adjusting the communication data rate, adjusting a parameter of the transmitted data packet, executing interference mitigation or co-existence algorithms, executing spectrum etiquette procedures, executing spectrum priority schemes, or re-assigning STAs to APs in a WLAN.

EX1003, 9:60-10:2.

B. Shaffer

Shaffer is directed to “reduc[ing] the impact of hidden nodes in wireless networks.” EX1004, ¶56. Two nodes in a wireless network are hidden nodes when they are too far apart to detect each other, but their signals still collide at a third node located between them. *Id.*, ¶2. To address this issue, Shaffer describes a wireless network with a “head-end device” and a plurality of nodes, as shown in Figure 1. *Id.*, ¶25; FIG. 1.

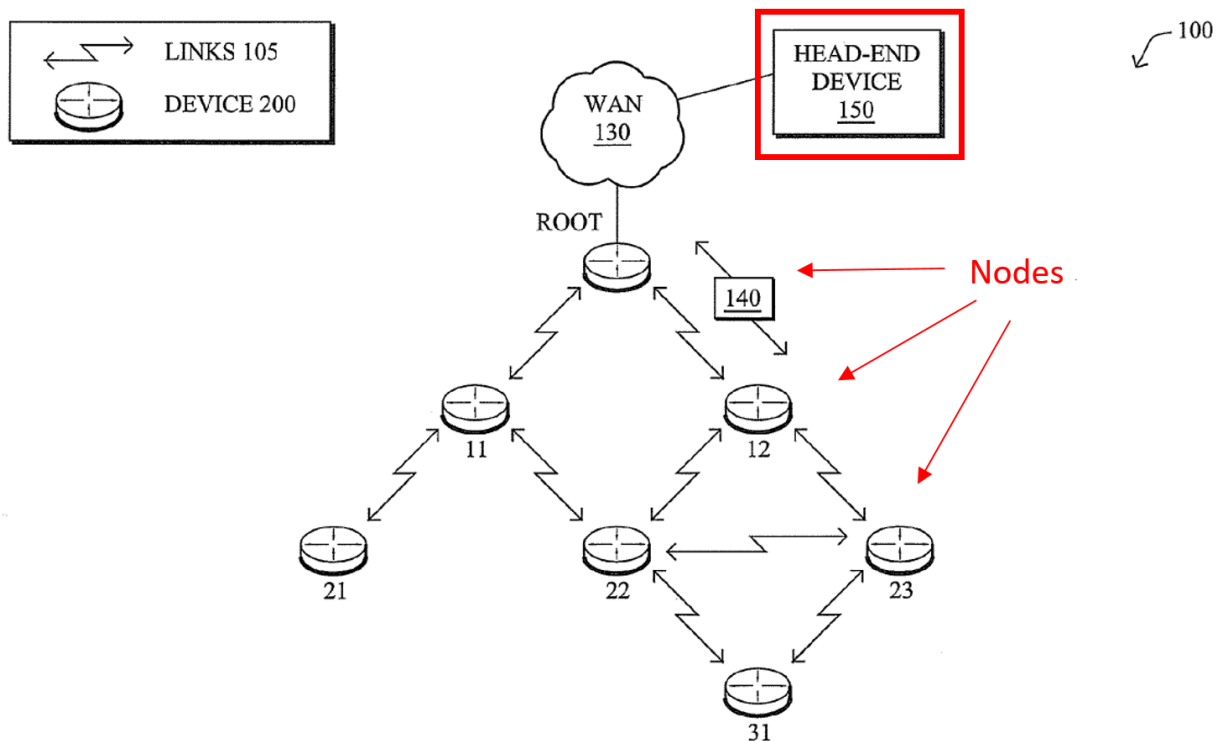


FIG. 1

EX1004, FIG. 1 (annotated).

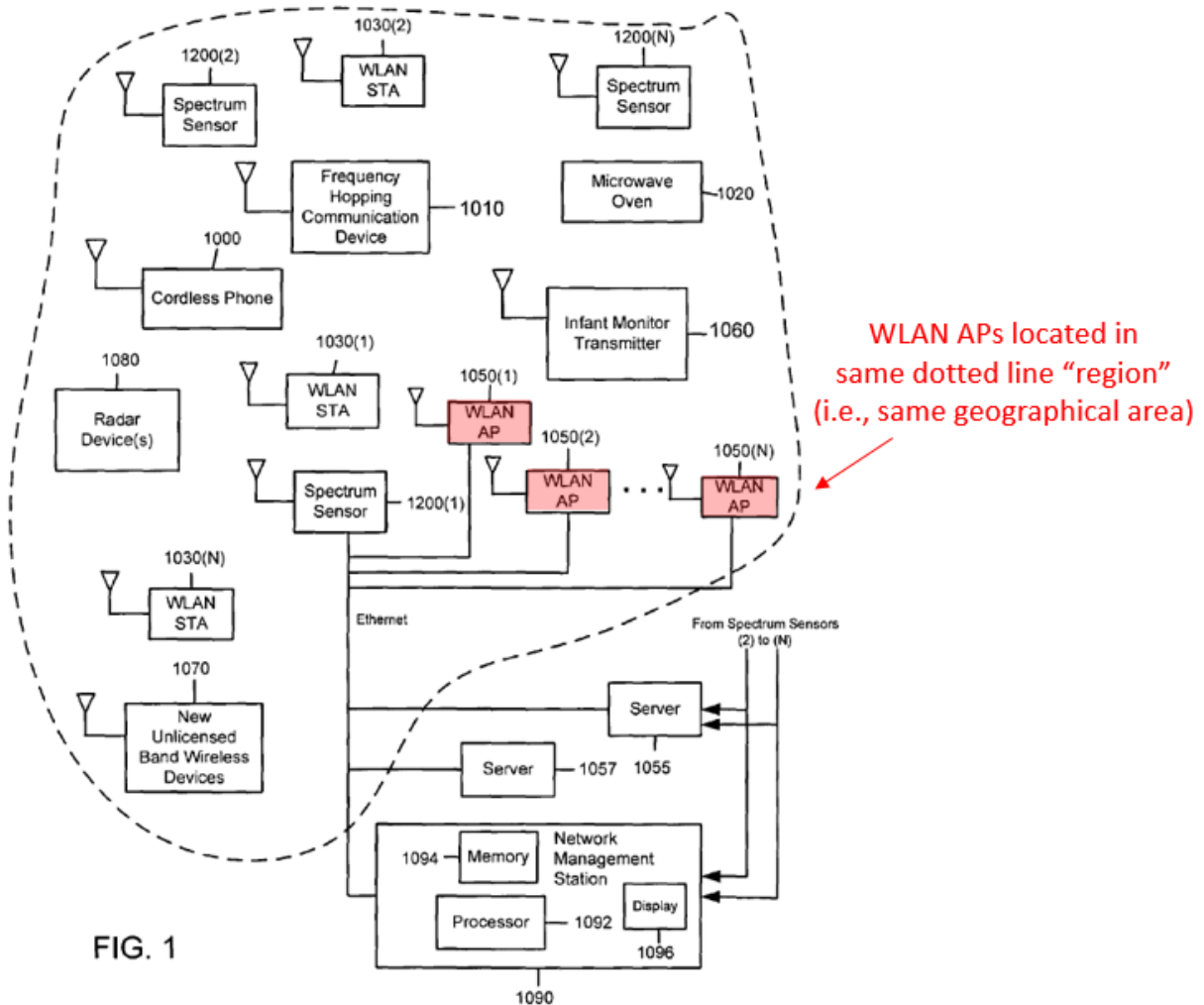
To mitigate the impact of hidden nodes, Shaffer describes the head-end device modifying node parameters or routing decisions according to two potential algorithms. EX1004, ¶¶56, 58. The first algorithm describes a “cost function” that selects a communication route based on a number of hidden nodes. *Id.*, ¶¶58, 68, 84. The second algorithm modifies transmission power or receiver sensitivity at a node based on the number of hidden nodes. *Id.*, ¶¶58, 92, 94. Instead of implementing these algorithms at a particular node, Shaffer’s “head-end device” applies and executes these algorithms according to the number of hidden nodes. *Id.*, ¶¶68, 84, 92, 94.

VI. DIENER DOES NOT DISCLOSE GATHERING OPERATIONAL DATA FROM MULTIPLE COMMUNICATION UNITS “LOCATED IN DIFFERENT GEOGRAPHICAL AREAS”

Independent claims 1, 11, and 20 recite “*receiving, by a server, ... data associated with an operation of two or more communication units located in different geographical areas.*” EX1001, Claims 1, 11, and 20. Diener fails to teach this claim element because Diener addresses interference experienced by *localized* “IEEE 802.11” (i.e., WiFi) wireless local area network (WLAN) AP devices rather than gathering operational data from APs located in different geographical regions. EX1003, 1:39-45, 6:5-18; *see also* EX1001, 1:44-54, 7:54-60, 10:34-41.

First, Petitioner maps Diener’s WLAN APs to the claimed “*communication units.*” Pet., 20. But as seen from the “dotted-line” in Figure 1, Diener’s primary

disclosure focuses on WLAN APs 1050(1) ... 1050(N) all being located within one region. EX1003, FIG. 1; 5:65-6:36. Diener explains that “[m]ultiple WLAN APs 1050(1) to 1050(N) may be operating *in the region*, each of which has one or more associated client STAs 1030(1) to 1030(N).” *Id.*, 6:16-18 (emphasis added).



EX1003, FIG. 1 (annotated).

As seen from the presence of devices like “cordless phone 1000,”
“microwave oven 1020,” and “infant monitor transmitter 1060,” this singular

region suggests a single household with an IEEE 802.11 WiFi network, which reflects a *single geographical area* rather than different geographical areas.

EX1003, FIG. 1, 5:65-6:36; *see also id.*, 8:50-52 (describing spectrum sensors being positioned at various locations within the same “locality or premises”).

Diener further confirms this understanding via its main goal of managing localized interference occurring in a “shared frequency band” that is shared among localized devices. EX1003, Title, 2:7-14, 2:28-43, 3:49-53, 5:40-64, 6:2-7, 26:47-58. For example, Diener aims to address communication interference in a “local RF environment” that affects “short-range wireless devices,” like WLAN APs in a Wi-Fi network. *Id.*, 3:41-46. In addressing this interference issue in the context of Figure 1, Diener states:

When these devices are *sufficiently close in proximity to each other*, or transmit signals at sufficiently high power levels, there will inevitably be interference between signals of one or more devices. The *dotted-line shown in FIG. 1 is meant to indicate a region where activity from any of the devices shown may impact other devices.*

EX1003, 6:2-7 (emphasis added).

To allegedly address this localized interference, Diener describes network management station 1090 (i.e., the Petition’s alleged “server”) obtaining “spectrum intelligence” information “from one or more WLAN APs” or “from spectrum sensors.” EX1003, 7:3-7, 10:24-25; Pet., 20. But gathering this “spectrum

information” suggests that the APs are in close proximity and are in the *same* geographical area. *Id.*, 23:41-46 (describing the processing of “spectrum information from *multiple points or nodes ... in a region* of unlicensed band operation (e.g., an enterprise)”). For example, the Petition even acknowledges and admits that the gathering of “spectrum profile information” reflects APs in close proximity that are capable of detecting the interference experienced by other localized devices:

Spectrum profile information describing the radio frequency environment (activity in the frequency band) at a wireless client device is sent to the wireless base station device (where the parameter controls are made) from either a *wireless client device or another radio device in the proximity of one or more wireless client devices that is capable of generating the spectrum profile information*. The spectrum profile information may include information identifying signals that are *occurring in the frequency band in the proximity of a wireless client device*.

EX1003, 3:60-4:2 (emphasis added); Pet., 22-23 (also citing EX1003, 8:59-62).

In view of Diener’s own stated goals of managing interference occurring in frequency bands shared by Wi-Fi-based WLAN APs in close proximity, Diener focuses on gathering spectrum information from geographically localized devices that share the same frequency spectrum. EX1003, Abstract, FIG. 1, 1:39-45, 2:28-43, 3:41-46, 5:40-6:36. Diener therefore does not describe gathering operational

data from “*two or more communication units located in different geographical areas*” as reflected in the ’398 patent and in the claims. *See* Section IV.B.

Recognizing this deficiency, Petitioner cites a single passage from Diener that references a “WAN” to argue that Diener discloses gathering operational data associated with APs located in “*different geographical areas.*” Pet., 21. But this passage is similarly deficient and still does not provide the requisite teaching. Specifically, the passage states:

For example, the network management application 94 may be executed by the network management station 1090 that is located in a central monitoring or control center (telephone service provider, cable Internet service provider, etc.) coupled to the sensor devices, APs, etc., ***as well as the devices which it controls (e.g., APs) via a wide area network (WAN) connection***, e.g., the Internet, a dedicated high speed wired connection, or other longer distance wired or wireless connection.

EX1003, 24:7-15 (emphasis added).

This passage simply states that the network management station 1090 (i.e., Petitioner’s alleged “server”) can be connected to an AP via a WAN connection. This passage does not describe gathering operational data associated with multiple APs that are located remotely from each other. Petitioner therefore has not shown that Diener teaches “*receiving, by a server, ... data associated with an operation of two or more communication units located in different geographical areas*” as

required by the claims.¹ Thus, because Petitioner’s analysis suffers from a fatal flaw, Petitioner fails to meet its burden, and the Board should deny institution.

VII. DIENER DOES NOT DISCLOSE DETERMINING A POLICY OR COMMUNICATING A POLICY TO A COMMUNICATION UNIT

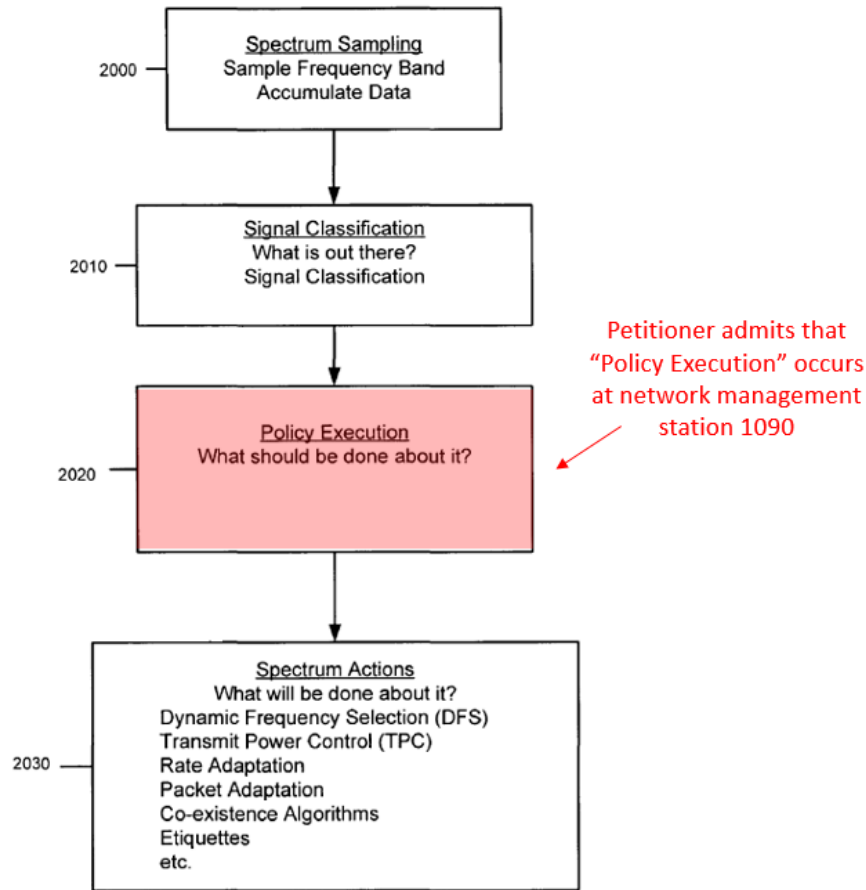
Independent claims 1, 11, and 20 recite “*communicating [a] policy to at least one or more communication units*” that implement one or more algorithms based on a rule or condition. EX1001, Claims 1, 11, and 20. Diener does not disclose communicating such a policy because (1) Diener does not disclose the claimed “policy” and (2) Diener does not describe providing a communication unit with rules or conditions for deciding which action to take to improve performance, such as whether to implement a particular algorithm.

First, Diener does not describe the “policy” used in the ’398 patent. *See* Section IV.C. As previously explained, the ’398 patent uses the term “policy” to refer to rules or conditions provided to a communication unit so that the communication unit can determine a particular course of action for improving

¹ As further explained below, this is primarily because Diener’s fundamental purpose of managing interference in a localized area differs from the ’398 patent’s goal of generating and communicating a policy based on a large amount of operational data gathered from many APs located in different geographic areas. *See* Sections IV.C, VII.

performance. *See* Section IV.C. Independent claims 1, 11, and 20 reflect this understanding as well. *See* Section IV.D. Instead of identifying such a policy, the Petition argues that Diener's network management station 1090 (i.e., Petitioner's alleged "server") ***uses policies*** to make policy decisions. Pet., 20, 28 (citing EX1003, 6:58-67). The Petition continues by arguing that the network management station 1090 determines a policy for corrective action and then ***executes that policy*** to determine a "spectrum action." Pet., 28-30 (citing EX1003, FIG. 5, 9:47-52, 54:63-55:3). That is, Diener's policy specifies a spectrum action for the network management station 1090 to take to modify the operation of APs in a network. EX1003, FIG. 5, 2:18-27, 9:47-10:2, 10:19-36.

FIG. 5



EX1003, FIG. 5 (annotated); Pet., 28-29.

Diener's policy—which is executed by network management station 1090 (i.e., Diener's alleged "server")—differs from the "policy" described in the '398 patent, which is provided to a communication unit so that the *communication unit* can decide what action to take to optimize performance. *See* Section IV. As previously explained, the server described in the '398 patent generates a "policy" with rules and/or conditions and then provides this policy to a communication unit. This differs from Diener's policy, which is preloaded and used at the network

management station 1090 to make policy decisions. EX1003, 6:58-62, 9:47-52.

Diener therefore does not disclose the claimed “policy.”

Second, Diener’s “network management station 1090” does not communicate a policy to any APs or communication units. Rather, Diener’s network management station 1090 follows a policy to generate commands or “controls” to instruct an AP to perform a particular action. *Id.*, 2:18-24, 6:58-67, 9:37-10:2, 10:19-36. This differs from the communication of a policy as recited in the ’398 patent, which enables the AP to use rules and conditions to make decisions and take actions (e.g., whether to implement a particular algorithm). *See* Section IV.C.

As the Petition acknowledges, Diener’s network management station 1090 executes controls when following a policy. Pet., 35. For example, the network management station 1090 may assign a device to a different channel or frequency sub-band and or adjust a communication data rate. EX1003, 9:60-10:2. Further, the network management station 1090 can execute its own interference mitigation algorithms, but does not provide any such algorithms to an AP or other communication device. *Id.*, 9:60-10:5. In this manner, Diener’s description of “controls” executed by a network management station 1090 (i.e., the alleged “server”) does not disclose communicating a policy to a communication unit or AP.

Using a shotgun approach, Petitioner additionally argues that the network management station 1090 transmits “control signals” to an AP, which causes the AP to “change one of its operational parameters.” Pet., 35-36; EX1003, 10:31-33. But this also does not disclose the communication of a *policy* to an AP as understood in the context of the ’398 patent. *See* Section IV.C. Such control signals do not enable an AP to use rules or conditions to determine an appropriate action. *See* Section IV.C. Rather, Diener’s control signals merely change the AP’s operational parameters according to the policy that has already been executed by network management station 1090. EX1003, 9:47-60, 10:19-36. Thus, Diener’s transmission of control signals also does not disclose communicating a policy to an AP.

Making another attempt under its shotgun approach, Petitioner cites Diener’s teaching of “executing interference mitigation or co-existence algorithms.” Pet., 37 (citing EX1003, 9:67, FIG. 5). But this statement also does not disclose communicating a policy to an AP. As seen from Figure 5 and as explained in Diener, these algorithms are implemented by network management station 1090 (i.e., Petitioner’s alleged “server”) to generate control signals. EX1003, 6:58-62, 9:47-10:5 (listing the execution of the algorithms among other network management station 1090 operations like assigning a device to a different frequency sub-band or channel, performing network load balancing, and re-

assigning STAs to different APs), 10:22-33 (describing network management station 1090 transmitting control signals to APs). Thus, Diener’s description of network management station 1090 employing such algorithms also does not disclose the claimed communicating of a policy to an AP. *See* Section IV.C.

In continuing to erroneously apply Diener to the claims—still more failed arguments under its shotgun approach—Petitioner also cites several “scenarios” that generically refer to policies. Pet., 38-41. For example, the Petition cites a scenario related to a “video stream” that experiences a background hum of noise. Pet., 38 (citing EX1003, 60:53-64 (an “802.11a network [that] carries a video stream”)). Diener states that the “policy associated with this case may be to use a spatial processing algorithm to improve the link margin between two devices.” EX1003, 60:60-64. But this statement again does not describe the communication of a policy to an AP in the manner described in the ’398 patent and recited in the claims. Rather, this again simply refers to the execution of a policy and “spatial processing algorithm” but does not teach providing such a policy or algorithm to an AP. *Id.*; Section IV.C.

In a last-ditch effort under its shotgun approach, the Petition resorts to a theoretical hypothetical. Specifically, the Petition additionally cites a scenario where a theoretical Bluetooth™ device causes interference. Pet., 38-39 (citing EX1003, FIG. 19). Petitioner identifies Figure 19, which depicts a dialog box that

refers to setting a fragmentation size and locking a data rate. Pet., 39 (citing, FIG.

19). While Petitioner alleges that this reflects employing two algorithms after receiving a policy, this is still incorrect. Diener states that “FIG. 19 illustrates exemplary spectrum event summary information *after an action was executed according to a spectrum policy.*” EX1003, 57:29-31 (emphasis added). As previously explained, Diener’s actions and spectrum policy are executed by network management station 1090. *Id.*, FIG. 5, 6:58-62, 9:47-10:5, 54:63-55:3. Thus, the graphical user interface depicted in Figure 19 again merely depicts operations performed by network management station 1090 and does not teach communicating a policy to an AP. Section IV.C.

Petitioner also points to “spectrum aware drivers within the WLAN AP” that “employ the controls communicated by the policy.” Pet., 40 (citing EX1003, 11:20-33). Diener states that these spectrum aware drivers respond to controls or control signals to change an operational parameter. EX1003, 11:1-19. Further, Diener states that “*spectrum aware drivers 17 may receive commands from interference algorithms at a higher level* to adjust a transmit rate, fragmentation threshold, etc.” or to “perform dynamic packet scheduling.” *Id.*, 11:11-30 (emphasis added). But this functionality still does not disclose a server communicating a policy to an AP. Rather, this description confirms the understanding that network management station 1090 executes a policy and

transmits commands to an AP according to that policy. *Id.*, 11:20-33; *see also id.*, FIG. 5, 6:58-62, 9:47-10:5.

Finally, in one last flawed attempt, Petitioner erroneously alleges that rules are provided to Diener's APs when "interference mitigation or avoidance algorithms" are executed. Pet., 40-41. Petitioner maps Diener's "controls" to the claimed rules. *Id.*, 41. But this description still does not describe communicating a policy with rules or conditions for implementing an algorithm to an AP. As previously explained, Diener's description of "controls" and "control signals" reflect the ***network management station 1090*** executing a policy and performing actions (e.g., assigning a device to a different frequency sub-band). EX1003, FIG. 5, 6:58-62, 9:47-10:5 (emphasis added). Even if the claimed controls are "rules"—which they are not—they are not provided to an AP as a policy for implementation. Section IV.C. Rather, control signals are generated as a result of the network management station 1090 executing a policy or an interference mitigation algorithm. EX1003, FIG. 5, 6:58-62, 9:47-10:5. Indeed, Petitioner even acknowledges that Diener's control signals instruct an AP to "take a specific action" rather than enabling an AP to implement its own algorithms as previously explained. *Compare* Pet., 41 *with* Section IV.C. Thus, transmitting control signals to an AP does not amount to providing a policy or rules to an AP so that the AP can perform its own decision-making and determine a particular action to take.

Section IV.C.

Because Diener does not disclose communicating a policy with rules or conditions that enable a communication unit to determine its own course of action to optimize performance, Diener does not disclose all of the elements of independent claims 1, 11, and 20. The Board should therefore reject Ground 1 and deny institution.

VIII. SHAFFER DOES NOT CURE DIENER’S DEFICIENCIES BECAUSE SHAFFER ALSO DOES NOT DISCLOSE COMMUNICATING A POLICY TO A COMMUNICATION UNIT

With respect to Ground 2, Shaffer in combination with Diener still does not disclose or otherwise render obvious independent claims 1, 11, or 20. Petitioner only relies on Shaffer for allegedly teaching the use of two algorithms to address hidden nodes and applies this teaching to “*determining a policy*” and “*communicating the policy*.” Pet., 58-64. Petitioner does not rely on Shaffer for teaching APs located in different geographical areas or any other claim elements. Shaffer, however, does not cure Diener’s deficiencies because Shaffer’s description of two algorithms similarly does not disclose the same “policy” as recited in the ’398 patent and also does not disclose communicating a policy to a communication unit. *See* Section IV.C.

First, the Petition still exclusively relies on Diener for determining a policy. Pet., 60 (“In the combined system of Diener and Shaffer, a POSITA would have

recognized *that when Diener’s network management station 1090 determines a policy*, it sends a control signal to the relevant APs...). While Petitioner cites Shaffer’s discussion of two algorithms, Petitioner does not rely on this disclosure for determining a policy. Pet., 59-60. Thus, Diener in combination with Shaffer still does not disclose or render obvious the claimed “*policy*” for the reasons previously presented against Diener alone. *See* Section VII.

But even when considering Shaffer’s discussion of two algorithms, this disclosure also does not disclose the claimed *policy*. As previously explained, the ’398 patent uses the term “policy” to refer to rules or conditions provided to a communication unit so that the communication unit can determine an action to optimize performance. Section IV.C. Instead of identifying such a policy, Shaffer simply describes the existence of two algorithms that may be used to address hidden nodes that may cause interference. EX1004, ¶58; *see also id.*, ¶103 (describing an “administrator” that configures a policy that is “used” by an algorithm rather than a policy that is provided to a communication unit.) But the mere description of two possible algorithms does not describe a policy that provides rules and conditions to a communication unit to use when determining a course of action to optimize performance. *See* Section IV.C. Thus, Shaffer—even when considered in combination with Diener—still does not disclose the “*policy*” recited in the claims.

This is further evidenced by Shaffer’s silence on *communicating a policy* to a communication unit. Shaffer does not describe providing a policy to a communication unit so that the communication unit can use the policy to make decisions about what action to take. *See* Section IV.C. Rather, as the Petition admits, Shaffer’s ***network administrator*** defines the policy and sends specific instructions for execution:

Shaffer teaches ***a “network administrator” which determines which algorithm to use for each device.*** ([EX1004], [0103]-[0104], [0106]). The network administrator may consider “the physical parameters of the environment and the impact of potential collisions with packets from hidden nodes” when ***setting a policy that indicates which algorithm should be employed.*** (*Id.*, [0113]).

Pet., 60 (emphasis added).

Because Shaffer’s “network administrator” is the one that selects and executes the policy, Shaffer does not disclose *communicating a policy* to a communication unit. Thus, because neither Shaffer nor Diener describes communicating a policy with rules or conditions that enables a recipient communication device to make its own decisions, the combination fails to teach or otherwise render obvious the claimed *communicating a policy*.

Recognizing this deficiency, Petitioner makes the following conclusory and unsupported statements:

“[A] POSITA would have understood that the communicated policy instructs an AP to invoke the specific cost function algorithm and/or a power transmission algorithm of Shaffer to reduce the impact of a hidden node in the network.”

“[A] POSITA would have understood that the APs implement the two algorithms (e.g., cost function or power transmission) in response to the policy that is communicated by the server.”

Pet., 64.

But as previously explained, nothing in Shaffer or Diener—even when considered in combination—suggests an AP that implements multiple algorithms or that decides on a particular action to optimize performance. *See* Section VII. Rather, Diener’s network management station 1090 (i.e., Diener’s alleged “server”) executes a policy to perform a spectrum action that issues a command to an AP. EX1003, FIG. 5, 2:18-27, 6:58-67, 9:47-10:2, 10:19-36. Shaffer also operates in a similar manner where a “network administrator” decides actions that a communication unit is meant to take. Pet., 60 (citing EX1004, ¶¶103-104, 106, 113). In this manner, the combination of Shaffer and Diener still does not teach or render obvious communicating a policy with rules or conditions that enable an AP to determine a course of action to optimize performance. *See* Section IV.C.

Because Diener in combination with Shaffer still does not disclose or otherwise render obvious communicating a policy with rules or conditions that

enable a communication unit to decide and take actions, the Diener-Shaffer combination does not render obvious all of the elements of independent claims 1, 11, or 20. The Board should therefore reject Ground 2 and deny institution.

IX. THE PETITION FAILS TO ESTABLISH THAT DIENER DETECTS THE “ABSENCE OF AN INTERFERENCE OR NOISE” AS REQUIRED BY CLAIMS 11 AND 20.

Independent claim 11 recites “*in response to the server detecting the absence of an interference or noise from nearby wireless channels, determining that packets will be lost regardless of rate selection.*” EX1001, 19:41-44.

Independent claim 20 recites similar features using analogous language. *See id.*, 20:30-33. The Petition solely relies on Diener for this limitation and does not rely on Shaffer. Pet., 51, 68. The Petition, however, still fails to establish that Diener teaches detecting the “absence” of interference or noise and then, in response, determining that packets will be lost regardless of rate selection.

First, the Petition’s statement that “Diener teaches that its system would detect both the existence of or absence of interference or noise” is conclusory and does not sufficiently explain how this claim element is met. Pet., 51, 56. This statement fails to address determining that packets will be lost *in response to* the server detecting the absence of interference or noise. Thus, even separately from whether Diener teaches detecting the absence of interference or noise, the Petition outright fails to show that Diener teaches the claimed “determining” occurring “*in*

response to the server detecting the absence of an interference or noise from nearby wireless channels,” as required by independent claims 11 and 20.

Second, Petitioner’s analysis of claim element 1(d)—as applied to claims 11 and 20—is similarly deficient. For example, Petitioner argues that Diener discloses “APs [that] would retreat from interference because packets are going to be lost regardless of the selected transmission rate.” Pet., 32. But this statement only addresses the scenario where interference is detected and does not address *detecting the absence of interference or determining that packets will be lost in response to detecting the absence of interference.*

Petitioner further asserts that “[a] POSITA would have understood that signal classification would involve detecting the existence—or absence—or [*sic*] interference on these channels.” Pet., 33. But Petitioner’s subsequent analysis is entirely directed to detecting the presence of interference and detecting packet loss regardless of rate selection in the presence of interference. *Id.*, 33-34 (arguing that packets are lost in Diener when an interferer cannot be mitigated through signal classification). This analysis fails to address claims 11 and 20, which recite “*in response to the server detecting the **absence of an interference or noise** from nearby wireless channels, determining that packets will be lost regardless of rate selection.*”

Independent of Petitioner’s arguments, Diener fails to disclose the

determination of lost packets in response to detecting the absence of interference because Diener only discusses taking corrective action in response to detecting interference:

[W]hen an interference condition (presence of another signal in the frequency band of operation, adjacent frequency channel of operation, etc., of a device or network of devices in the frequency band) *is detected*, a real-time alert may be generated to advise a network administrator about the condition.

EX1003, 9:37-42 (emphasis added).

“When an interference condition in the frequency band is detected, the spectrum expert 56 or network expert 80 may command the location engine 54 to physically locate the source of the interferer.”

EX1003, 18:59-63 (emphasis added).

While Diener may discuss taking an action in response to an interference condition, nowhere does Diener discuss identifying a condition where no interference is detected. Further, Diener does not describe making any determination that packets will be lost regardless of rate selection in response to detecting the absence of interference or noise as required by independent claims 11 and 20.

In this manner, Petitioner does not adequately appreciate or fully address “*in response to the server detecting the absence of an interference or noise from*

nearby wireless channels, determining that packets will be lost regardless of rate selection” as recited in claims 11 and 20. *See* Pet., 51, 56. Because this deficiency means that Petitioner will fail to meet its burden ***for more than half of the challenged claims*** in the ’398 patent, the Board should not expend resources and should deny institution. PTAB Trial Practice Guide, p. 64 (“The Board retains the discretion to deny institution of the petition as a whole ... even when the petition includes at least one claim subject to a challenge that otherwise meets the criteria for institution”; “If a panel determines that a petition meets the standards for institution in relation to fewer than all the challenges presented... the panel will evaluate all the challenges and determine whether, in the interests of efficient administration of the Office and integrity of the patent system, the entire petition should be denied.”); *Deeper, UAB v. Vexilar, Inc.*, Case IPR2018-01310, Paper 7, 42 (PTAB Jan. 24, 2019) (informative) (“the Board may consider the number of claims and grounds that meet the reasonable likelihood standard when deciding whether to institute”); *Chevron Oronite Co. v. Infineum USA L.P.*, Case IPR2018-00923, Paper 9, 10-11 (PTAB Nov. 7, 2018) (informative).

X. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER *FINTIV*

The Board should deny the Petition without looking to the merits based on its discretion, under the *Fintiv* factors.

In *Apple Inc. v. Fintiv, Inc.*, the Board articulated six nonexclusive factors for determining whether to institute an AIA post-grant proceeding where there is parallel district-court litigation. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (P.T.A.B. Mar. 20, 2020) (“*Fintiv*”). On June 21, 2022, Director Vidal issued a Memorandum re: Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (“*Fintiv Memo*”) clarifying the procedure that the Board should follow when evaluating the six *Fintiv* factors. Here, the Board should exercise its discretion to deny the Petition because (1) *Fintiv* factors two through five support discretionary denial; and (2) the Petition does not provide a compelling, meritorious challenge (*Fintiv* factor six).

A. Factor 1 is neutral as no stay has been requested.

As Petitioner acknowledges, no stay has been requested in the parallel litigation, and there is no indication that the court would grant one in the event this proceeding were instituted. Pet., 5-6. Factor one, therefore, is neutral. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15, 12 (PTAB May 13, 2020) (“*Fintiv II*”) (in similar circumstances finding that “[t]his factor does not weigh for or against discretionary denial.”).

B. Factor 2 strongly favors denial because trial will begin nearly seven months before the FWD deadline.

Factor two weighs heavily in favor of discretionary denial. The projected statutory deadline for issuing a Final Written Decision (FWD) in this IPR is May

19, 2026. Jury selection in the parallel litigation is scheduled to begin September 22, 2025, which is more than seven months before the projected FWD deadline. EX2001, 1; EX1007, 1. The *Fintiv* Memo also authorizes panels to “consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides” as reported on the uscourts.gov website. *Fintiv* Memo, 3 n.4. According to the latest report (September 2024) on the uscourts.gov website, the median time-to-trial for civil actions in the Eastern District of Texas is 21.9 months. The complaint in the parallel litigation was filed February 21, 2024. Applying the median time-to-trial, the estimated trial date would be in mid-December 2025 (about December 18, 2025), which is about five months before the projected FWD deadline.

Additionally, in a parallel proceeding (IPR2024-01379) Petitioner cited a Lex Machina report² and alleged that “the Eastern District of Texas’ median time-to-trial for patent cases is 727 days, which would result in a trial date of February 17, 2026.” EX2003, 5 (Petition citing EX2004). Even applying this date, which is most favorable to Petitioner, the trial in the parallel litigation would begin more than three months before the projected FWD deadline. The table below

² The *Fintiv* memo authorized the Board to consider the median time-to-trial statistics that are published by US Courts, not by Lex Machina.

summarizes the various projections and demonstrates that, regardless of the source of the projection, the Board should reach a final decision in this IPR between about three to nearly eight months after jury trial in the parallel litigation:

Eastern District of Texas	Projected Trial Date	Months Before FWD
Current Case Schedule	September 22, 2025	More than seven
US Courts (Civil)	Mid-December 2025	More than five
Lex Machina (Patents)	February 17, 2026	More than three

Petitioner references a “motion to transfer the co-pending litigation to the District of Colorado” and that, if transferred, the estimated trial date would be “early 2027.” Pet., 6. Like a motion for stay, a judge determines whether to grant a motion to transfer “based on the facts of each specific case as presented in the briefs by the parties.” *See Fintiv II* at 12. The Board should not speculate on how a court will rule on a pending motion to transfer. *See id.* Under the current facts, trial in EDTX is scheduled to begin more than seven months before the FWD deadline, and thus Factor two weighs heavily in favor of denying institution.

C. Factor 3 favors denial because the parties and the district court already have and will continue to make significant investment in the parallel litigation.

Factor three weighs in favor of denying institution. Here, the Board “consider[s] the amount and type of work already completed in the parallel

litigation by the court and the parties *at the time of the institution decision.*” *Fintiv*, 9 (emphasis added). The deadline for issuing a Decision on Institution (DI) in this IPR is May 19, 2025. The parties have already exchanged invalidity and infringement contentions and are engaged in fact discovery. By the May 19, 2025 DI deadline, the court will have conducted a Claim Construction Hearing (on March 19, 2025), and the parties will have completed fact discovery (by April 15, 2025) and be engaged in expert discovery. EX2001, 4-7.

Petitioner’s arguments that factor three favors institution are not persuasive because they consider the state of the parallel litigation at the time the Petition was filed, not at the time of the DI. *See* Pet., 6 (arguing that the case “is in its early stages” without considering the then-current case schedule (Dkt. 20 issued July 22, 2024), which Petitioner filed as Exhibit 1007³). Nor was Petitioner diligent in filing the Petition, as it alleges. *See* Pet., 7-8. Petitioner admits it filed the Petition “approximately 17 weeks” (***more than four months***) after it was served infringement contentions. *Id.*, 7-8. And the Petition was filed eight months after the Complaint identified the asserted claim that is among the claims challenged here.

³ The current schedule, issued October 4, 2024, and filed as Exhibit 2001, shows that only minor updates have been made to the schedule since the July 22, 2024 schedule (EX1007).

EX1005, ¶¶ 61–63. *Cf. Fintiv*, 11 (“If the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution under *NHK*.”). Petitioner does not provide any explanation for its delay in filing the Petition.

Because the parties and the court will have expended significant resources by the May 19, 2025 DI deadline and because Petitioner was not diligent in filing the Petition, factor three weighs in favor of denying institution.

D. Factor 4 strongly favors denial because there is substantial overlap between the issues that will be tried in the different tribunals.

Factor four weighs in favor of denying institution. “*Fintiv* factor four looks at the overlap between the issues raised in the IPR petition and in the parallel proceeding in order to evaluate ‘concerns of inefficiency and the possibility of conflicting decisions.’” *Fintiv* Memo, 7; *Fintiv*, 12. Here, there is substantial overlap between the invalidity issues: the Petition challenges the validity of all claims of the ’398 patent based on (i) Diener and (ii) Diener and Shaffer, Pet., 3; in the parallel litigation, Petitioner challenges the validity of claims 1-4 and 6-10 using the same two references, EX2002, 4-5, 21-23.

Petitioner’s stipulation—to “not pursue any of the invalidity references relied on in the Petition in the district court litigation”—is not a *Sotera* stipulation

and does not allay the concerns undergirding factor four. Pet., 6. In fact, Petitioner's stipulation is essentially meaningless. It includes only two patents, each of which has at least one counterpart or related patent/publication that is not included in the stipulation. For example, Diener is a continuation-in-part from two other patents (U.S. Patent Nos. 7,269,151 and 7,424,268) and is a member of a large family of other patents. EX2005. Shaffer was also published as WO 2012/177705. EX2006. But even if Petitioner stipulated not to use these related references, that still does not prevent Petitioner from using other references that have cumulative teachings.

Accordingly, because there is significant overlap in validity issues and Petitioner's stipulation does nothing to reduce this overlap, factor four weighs in favor in denying institution.

E. Factor 5 strongly favors denial because the parties involved in this IPR are the same as in the district court proceeding.

Factor five weighs in favor of denying institution because, as Petitioner acknowledges, "Petitioner is a defendant in the parallel proceeding." Pet., 8; *Fintiv II*, 15 ("Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.").

F. Factor 6 strongly favors denial because the Petition fails to demonstrate that one or more of the claims are unpatentable.

The *Fintiv* Memo explains that “[c]ompelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Fintiv* Memo, 4. As explained in the arguments above, the Petition fails to establish that Diener, alone or with Shaffer, teaches or suggests gathering operational data from communication units “located in different geographical areas,” communicating a policy, or detecting the absence of interference or noise. *See, supra*, Sections VI-IX. Petitioner’s expert largely repeats the Petition verbatim without providing additional analysis or corroborating evidence. *Id.*; *Xerox Corp. et al. v. Bytemark*, IPR2022-00624, Paper 9, 15 (PTAB Aug. 24, 2024). Therefore, factor six favors denying institution. *Fintiv*, 15.

* * *

At bottom, five of the *Fintiv* factors either favor or strongly favor denial. As such, the Board should exercise its discretion to deny the Petition in view of the parallel litigation.

XI. CONCLUSION

The Petition fails to show a reasonable likelihood that any of the challenged claims is unpatentable as obvious in view of the cited art and, therefore, the Board must deny institution. Alternatively, the Board should use its discretion under the *Fintiv* factors to deny institution.

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CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Patent Owner Preliminary Response complies with the type-volume limitation of 14,000 words, comprising 8,467 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Patent Owner Preliminary Response complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PATENT OWNER PRELIMINARY RESPONSE UNDER 37 C.F.R. § 42.107(a)** and associated Exhibits 2001-2006 were served in their entireties on February 19, 2025, upon the following parties via electronic mail:

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