Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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ocpat_uspto@qualcomm.com
doipdocket@nortonrosefulbright.com
Appellants seek our review under 35 U.S.C. § 134(a) of the
Examiner’s Final Office Action rejecting claims 1–3, 5–29, 31–57, and 59–
80, all of which are pending on appeal. Claims 4, 30, and 58 are cancelled.
App. Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.2

1 According to Appellants, the real party in interest is QUALCOMM Inc.
App. Br. 2.
Br.”); Reply Brief filed December 20, 2016 (“Reply Br.”); Examiner’s
Answer mailed October 20, 2016 (“Ans.”); Non-Final Office Action mailed
December 31, 2015 (“Non-Final Act.”); and original Specification filed
March 12, 2013 (“Spec.”).
STATEMENT OF THE CASE

Appellants’ invention relates to a wireless communication system including a multi-mode user equipment (UE) (i.e., mobile device), shown in Figure 4 of the Specification, operable to support communications with multiple radio access technologies (RATs) for both (1) cellular or wireless wide area network (WWAN) and (2) wireless local area network (WLAN) communications. Spec. ¶ 2, 7, 50; Abstract.

Figure 4 is reproduced below:

![Diagram of wireless communication system](image)

Figure 4 shows a system for performing automated interactions with computer software application 302.

As shown in Figure 4, multi-mode UE 410 may support LTE 420 for broadband cellular/WWAN data services, code division multiple access (CDMA) 420 for cellular/WWAN voice services, and a short-range WLAN 426, such as WIFI™ 422, WIMAX™ 424, BLUETOOTH®, and the like, for direct access to Internet Protocol (IP) networks. Spec. ¶ 50.
Claims 1, 17, 27, 43, 53, 54, 55, and 71 are independent. Claims 1 and 17 are illustrative of the claimed subject matter, as reproduced below with disputed limitations in italics:

1. A method of wireless communication, comprising:
   - receiving, at a mobile device, a management indication from a wide area wireless network (WLAN) to manage connectivity with a wireless local area network (WLAN), wherein the management indication comprises one of:
     - an indication for the mobile device to discover access points in the WLAN;
     - an indication for the mobile device to associate with an access point in the WLAN; and
     - an indication for the mobile device to offload traffic to the WLAN;
   - obtaining, by the mobile device, a status of a WLAN radio of the mobile device; and
   - determining, by the mobile device, whether to disregard or to follow the management indication based on the status, wherein the status of the WLAN radio comprises one of:
     - off;
     - active with the mobile device associated to the WLAN; and
     - active with the mobile device not associated to the WLAN.

17. A method of wireless communication, comprising:
   - receiving, at a mobile device, a dynamic indication from a wireless wide area network (WWAN) to offload data to a wireless local area network (WLAN) associated with the mobile device, wherein a current network offload policy at the mobile device does not specify offloading data to the WLAN associated with the mobile device;
   - suspending application of the current network offload policy at the mobile device based on the indication, wherein the current network offload policy was received at the mobile device from a core network (CN); and
transmitting data to the WLAN in response to the dynamic indication.

App. Br. 21, 23–24 (Claims App’x.).

Evidence Considered

<table>
<thead>
<tr>
<th>Inventor</th>
<th>Patent Number</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fu</td>
<td>US 2011/0222523 A1</td>
<td>Sept. 15, 2011</td>
</tr>
<tr>
<td>Hwang</td>
<td>US 2005/0153692 A1</td>
<td>July 14, 2005</td>
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</tbody>
</table>


Examiner’s Rejections & References


(2) Claims 6, 16, 32, 42, 60, and 70 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang, Hsu, and Fu. Non-Final Act. 39–44.

(3) Claims 14, 40, and 68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang, Hsu, and Mustajarvi. Non-Final Act. 44–47.


ANALYSIS

Independent Claims 1, 27, 53, and 55 based on Hwang and Hsu

In support of the obviousness rejection of independent claim 1, and similarly, claims 27, 53, and 55, the Examiner finds Hwang teaches all the recited steps, as demonstrated below (emphasis added):

<table>
<thead>
<tr>
<th>Claim Element</th>
<th>Hwang (Prior Art) Element</th>
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<tbody>
<tr>
<td>[1] “receiving, at a mobile device, a management indication from a wide area wireless network (WLAN) to manage connectivity with a wireless local area network (WLAN),”</td>
<td>Hwang’s UE (user equipment) receives broadcasting information (including SIB/CBS message and interworking WLAN information) from mobile communication network to manage connectivity</td>
</tr>
</tbody>
</table>
wherein the management indication comprises one of:

- [i] an indication for the mobile device to discover access points in the WLAN;
- [ii] an indication for the mobile device to associate with an access point in the WLAN; and
- [iii] an indication for the mobile device to offload traffic to the WLAN”

| [2] “obtaining, by the mobile device, a status of a WLAN radio of the mobile device; and” | Hwang’s UE determines if WLAN module 14a, shown in Fig. 3, can support the standard type of WLAN; see Non-Final Act. 6 citing (Hwang ¶ 50, 68, 71, 73, 76, 77, 81, 85, 93, Figs. 6–8) |
| [3] “determining, by the mobile device, whether to disregard or to follow the management indication based on the status [of the WLAN radio]” | Hwang’s UE determines if it can interwork with WLAN based on its ability to support the standard type of WLAN received in the interworking WLAN information; see Non-Final Act. 6 citing (Hwang ¶ 71, 73, Fig. 6, ¶ 82, 84, Fig. 8) |

Hwang’s Figure 3 shows UE operable in both (1) cellular, wireless wide area network (WWAN) and (2) wireless local area network (WLAN), as reproduced below:
Hwang’s Figure 3 shows dual-mode UE 10b including (1) WLAN module 14a to support WLAN communication and (2) cellular modem 14b to support WWAN communication.

To the extent necessary, the Examiner relies on Hsu for teaching the specific “status of the WLAN radio” as comprising “one of: [i] off; [ii] active with the mobile device associated with the WLAN; and [iii] active with the mobile device not associated with the WLAN” to support the conclusion of obviousness, i.e., “in order to minimize unnecessary WLAN scanning based on WLAN advertisement from the cellular network via signaling messages, thereby conserving power at a mobile device.” Non-Final Act. 6–7 (citing Hsu ¶¶ 37, 78, 82–83, Fig. 6; ¶ 95, Fig. 9; ¶¶ 75–76, Figs. 10B–10C).

Appellants acknowledge the claimed “status of the WLAN radio” can be interpreted to encompass Hwang’s disclosure of whether a UE supports a standard type of a target WLAN. App. Br. 10 (citing Hwang ¶ 71). However, Appellants argue: (1) the Examiner has offered “no explanation or
reasoning as to how Hwang can be modified with such [Hsu’s] status [of the WLAN radio comprises one of: (i) off; (ii) active with the mobile device associated to the WLAN; and (iii) active with the mobile device not associated to the WLAN] to teach the features of claim 1”; and (2) Hwang’s disclosure “cannot simply be modified to perform the claimed WLAN scan based on whether WLAN radio of the UE is off, active and associated, or active and not associated [as disclosed by Hsu]” because such a modification [i] would be “inconsistent with the disclosure of Hwang” and [ii] “would impermissibly change the principle of operation by which Hwang’s device . . . based on its support for a particular type of WLAN.” App. Br. 10–11. According to Appellants, this is because “whether the WLAN radio is off or active has no effect on whether the WLAN scan takes place because the WLAN scan is based on whether the type of the target WLAN is supported by the UE or not.” App. Br. 11.

Appellants also argue Hwang’s SIB/CBS message cannot be equated as Appellants’ claimed “management indication” recited in claim 1 because Hwang’s SIB/CBS message includes “information about a WLAN (e.g., standard type, SSID, etc.) that the UE can communicate with” and, as such, “is always processed and used,” whereas Appellants’ claimed “management indication” is used to determine by the UE as to whether “to disregard or to follow.” App. Br. 11–12.

We do not find Appellants’ arguments persuasive. Instead, we find the Examiner has provided a comprehensive response to Appellants’ arguments supported by a preponderance of evidence. Ans. 82–85. As such, we adopt the Examiner’s findings and explanations provided therein. Id. For additional emphasis, we note Appellants’ claim 1 is broadly worded
to include several alternative claim limitations. For example, Appellants’ claim 1 recites “a management indication as comprising:

“one of [A] an indication . . . to discover access points in the WLAN; [B] an indication . . . to associate with an access point in the WLAN; and [C] an indication . . . to offload traffic to the WLAN.”

Likewise, Appellants’ claim 1 also recites “a status of a WLAN” as comprising: “one of [A] off; [B] active . . . associated to the WLAN; and [C] active . . . not associated to the WLAN.” In addition, Appellants’ claim 1 also recites, inter alia: “determining, by the mobile device, whether to disregard or to follow the management indication based on the status.” (Id., emphasis added).

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In light of Appellants’ Specification, we interpret these alternative claim limitations of “one of A, B, and C” as including A, B, or C. As such, when properly interpreted, Appellants’ claim 1 only requires a mobile device to (1) receive “a management indication” from WWAN to manage WLAN to discover an access point (AP) in the WLAN, and simply (2) disregard such “management indication” when the status of the WLAN is off.

Based on such an interpretation, Appellants’ claim 1 is extremely broad and does not distinguish over Hwang alone. Nevertheless, a disclosure such as Hwang that anticipates under 35 U.S.C. § 102 typically renders the claim unpatentable under 35 U.S.C. § 103 in all but rare cases. See In re Pearson, 494 F.2d 1399, 1402 (CCPA 1974); cf. Cohesive Tech v. Water Corp., 543 F.3d 1351, 1363 (Fed. Cir. 2008) (“novelty under 35 U.S.C. § 102 and nonobviousness under 35 U.S.C. § 103 are separate conditions of patentability”).

To the extent Hsu is applicable, we are not persuaded by Appellants’ arguments that modifying Hwang to incorporate Hsu’s teachings would impermissibly change the principle of operation of Hwang’s device. App. Br. 9–19; Reply Br. 3–10. Instead, we find Hsu’s detection and selection of a WLAN complements Hwang’s UE operable in both (1) cellular, wireless wide area network (WWAN) and (2) wireless local area network (WLAN). In addition, we also find the Examiner has presented sufficiently “articulated reasoning with some rational underpinning” to support the combination of Hwang and Hsu, i.e., “to minimize unnecessary WLAN scanning based on WLAN advertisement from the cellular network via signaling message.” Non-Final Act. 7.
For these reasons, we are not persuaded of Examiner’s error. Accordingly, we sustain the Examiner’s obviousness rejection of independent claim 1 and similarly, claims 27, 53, and 55, as well as their respective dependent claims 2, 3, 6, 7, 9–16, 18–26, 28, 29, 32, 33, 35–42, 44–52, 56, 57, 60, 61, and 63–70, which Appellants do not argue separately.

With respect to Appellants’ separate arguments against the Examiner’s rejection of (1) dependent claims 5, 31, and 59; and (2) dependent claims 8, 34, and 62, these arguments are unpersuasive for the same reasons discussed with respect to the rejections of independent claims 1, 27, 53, and 55. App. Br. 13–15; Reply Br. 5–8. For the same reasons discussed, we also sustain the Examiner’s obviousness rejection of claims 5, 8, 31, 34, 59, and 62.

Independent Claims 17, 43, 54, and 71

In contrast to claim 1 (and similarly, claims 27, 53, and 55), independent claim 17 simply recites the ability of a mobile device to (1) “offload data” to a wireless local area network (WLAN), (2) “suspend[] application of the current network offload policy at the mobile device based on the indication” and (3) “transmit[] data to the WLAN in response to the dynamic indication.” Independent claims 43, 54, and 71 recite similar limitations.

In support of the rejection of independent claim 17 and, similarly claims 43, 54, and 71, the Examiner finds Hwang teaches most aspects of Appellants’ claimed “method of wireless communication” and Hwang’s UE operable in both (1) cellular, wireless wide area network (WWAN) and (2)
wireless local area network (WLAN). Non-Final Act. 54–55 (citing Hwang ¶¶ 50, 68, 71, 73, 76, 77, 81, 85, 93, Figs. 6–8).

The Examiner acknowledges Hwang does not teach, but relies on (1) Alcatel-Lucent for teaching, “suspending application of a current network offload policy at the mobile device based on the indication” and (2) Mustajarvi for teaching “a current network offload policy at the mobile device [that] does not specify offloading data to the WLAN” to support the conclusion of obviousness. Non-Final Act. 55–56 (citing Alcatel-Lucent pp. 9, 31–32; Mustajarvi ¶¶ 2, 5, 8–11, Fig. 2).

Appellants argue Hwang does not teach “a dynamic indication ... to offload data to a wireless local area network WLAN” because upon reception of information about a WLAN, Hwang’s “UE is not yet connected” and, as such, cannot offload data. App. Br. 15–16. In addition, Appellants argue Alcatel-Lucent does not teach that the overridden policy is a “current network offload policy,” as recited in claim 17. App. Br. 16.

Again, we are not persuaded by Appellants’ arguments and, as such, adopt the Examiner’s findings and explanations provided on pages 86–88 of the Examiner’s Answer. Suspending the current network offload policy and offloading data to the WLAN are necessary steps for Hwang’s UE to establish WLAN communications.

For these reasons, we sustain the Examiner’s obviousness rejection of independent claim 17, and similarly, claims 43, 54, and 71, which include commensurate limitations, and their respective dependent claims 72–80, which Appellants do not argue separately.
CONCLUSION

On the record before us, we conclude Appellants have not demonstrated the Examiner erred in rejecting claims 1–3, 5–29, 31–57, and 59–80 under 35 U.S.C. § 103(a).

DECISION

As such, we AFFIRM the Examiner’s final rejection of claims 1–3, 5–29, 31–57, and 59–80.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED