

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SPRINT SPECTRUM L.P., CELLCO PARTNERSHIP D/B/A VERIZON
WIRELESS, and AT&T MOBILITY LLC,
Petitioner,

v.

ADAPTIX, INC.,
Patent Owner.

Case IPR2016-00823
Patent 8,934,375 B2

Before KALYAN K. DESHPANDE, TREVOR M. JEFFERSON, and
J. JOHN LEE, *Administrative Patent Judges*.

DESHPANDE, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Sprint Spectrum L.P., Cellco Partnership d/b/a Verizon Wireless, and AT&T Mobility LLC (collectively, “Petitioner”) filed a Petition requesting an *inter partes* review of claims 1, 3, 9–10, 12, 15–17, 19, 25–26, 28, and 31–32 of U.S. Patent No. 8,934,375 B2 (Ex. 1001, “the ’375 patent”). Paper 4 (“Pet.”). Adaptix, Inc. (“Patent Owner”) filed a corrected Preliminary Response. Paper 8 (“Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” After considering the Petition, the Preliminary Response, and associated evidence, we conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing the unpatentability of claims 1, 3, 15–17, 19, and 31–32 of the ’375 patent. Thus, we institute an *inter partes* review of claims 1, 3, 15–17, 19, and 31–32 of the ’375 patent. We further conclude that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing the unpatentability of claims 9, 10, 12, 25, 26, and 28 of the ’375 patent. Therefore, we do not institute an *inter partes* review of claims 9, 10, 12, 25, 26, and 28 of the ’375 patent.

A. Related Proceedings

Petitioner indicates that the ’375 patent is the subject of the following proceedings: *Adaptix, Inc. v. AT&T Mobility LLC*, Case No. 6:15-cv-43 (E.D. Texas), *Adaptix, Inc. v. Sprint Spectrum, L.P.*, Case No. 6:15-cv-44 (E.D. Texas), and *Adaptix, Inc. v. Cellco Partnership d/b/a Verizon Wireless*, 6:15-cv-45 (E.D. Texas). Pet. 57–58.

IPR2016-00824, filed concurrently, also challenges the '375 patent. *Sprint Spectrum L.P. v. Adaptix, Inc.*, Case IPR2016-00824.

B. The '375 Patent (Ex. 1001)

The '375 patent discloses methods and apparatuses for allocating subcarriers in an orthogonal frequency division multiple access (OFDMA) system. Ex. 1001, 2:27–29. Accordingly, each of multiple subscribers measures performance parameters for a plurality of subcarriers, selects multiple candidate subcarriers with good performance, and provides information regarding respective candidate subcarriers to a base station. *Id.* at 3:24–29. The performance parameter measurements may be based upon pilot symbols provided by the base station. *Id.* at 5:36–46. Upon receiving the information from the subscribers, the base station selects subcarriers from the candidate subcarriers to be allocated for use by each subscriber. *Id.* at 3:37–39. Subsequently, the base station informs each subscriber of its respective subcarrier allocation. *Id.* at 3:55–57. This process is repeated periodically and/or when channel deterioration is observed. *Id.* at 6:63–7:15.

Figure 1B, reproduced below, is a flow diagram of one embodiment of the process for allocating clusters of subcarriers to subscribers.

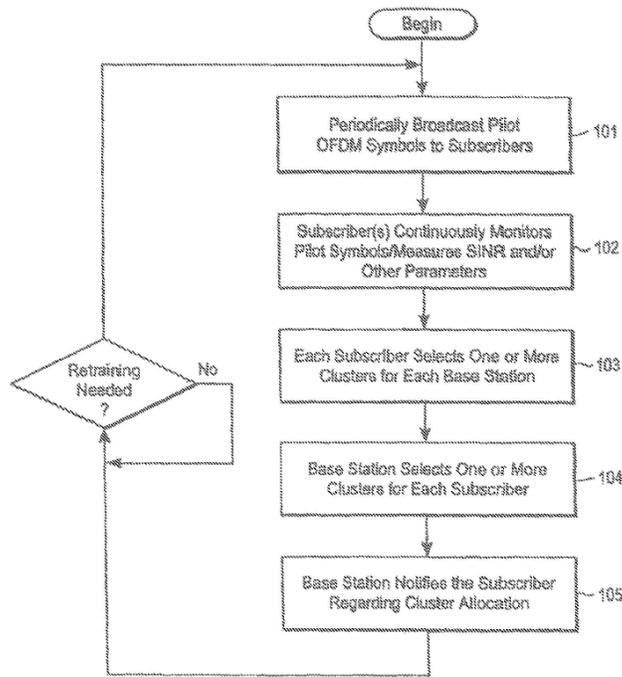


FIG. 1B

In accordance with the process depicted above in Figure 1B, each base station periodically broadcasts pilot OFDM symbols to every subscriber (step 101). *Id.* at 5:36–38. Each subscriber continuously monitors the reception of the pilot symbols and measures associated performance parameters (step 102). *Id.* at 5:47–50. Then, each subscriber selects one or more clusters with good performance and feeds back to the base station information regarding these candidate clusters (step 103). *Id.* at 5:50–55. The base station then selects, for each subscriber, one or more clusters from among the candidate clusters (step 104). *Id.* at 6:18–20. The base station notifies each subscriber about the cluster allocation. This process may be repeated. *Id.* at 6:63–65.

C. Illustrative Claim

Petitioner challenges claims 1, 3, 9–10, 12, 15–17, 19, 25–26, 28, and 31–32 of the '375 patent. Pet. 5–56. Claims 1 and 17 are independent

claims. Claims 3, 9, 15, and 16 depend from independent claim 1, and claims 10 and 12 depend from dependent claim 9. Claims 19, 25–26, 28, and 31–32 depend from independent claim 17. Claims 26 and 28 depend from dependent claim 25. Claim 1 is illustrative of the claims at issue and is reproduced below:

1. A method for a wireless system employing orthogonal frequency division multiple access (OFDMA), the method comprising:

measuring, at a first time by a subscriber unit, a first channel information for a plurality of subcarriers based on a first plurality of pilot symbols received from a base station;

providing, by the subscriber unit, a first feedback information relating to a plurality of feedback clusters based on at least the measuring of the first channel information for the plurality of subcarriers based on the first plurality of pilot symbols, each feedback cluster of the plurality of feedback clusters being at least two subcarriers, the first feedback information relating to the plurality of feedback clusters based on the first plurality of pilot symbols includes an index corresponding to a first modulation and coding rate associated with each feedback cluster of the plurality of feedback clusters;

receiving, by the subscriber unit, a first allocation of OFDMA subcarriers based on at least the providing of the first feedback information selected by the base station for use by the subscriber unit, the first allocation of OFDMA subcarriers including an indication of a modulation and coding rate associated with the first allocation of OFDMA subcarriers;

measuring, at a second time by the subscriber unit, a second channel information for the plurality of subcarriers based on a second plurality of pilot symbols received from the base station;

providing, by the subscriber unit, a second feedback information relating to the plurality of feedback clusters based on at least the measuring of the second channel information for the plurality of subcarriers based on the second plurality of pilot symbols, the second feedback information relating to the

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