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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ED H. FRANK and RICHARD MARTIN

Appeal 2010-008386
Application 10/658,514
Technology Center 2400

Before, ERIC B. CHEN, LARRY J. HUME, and JOHN G. NEW,
Administrative Patent Judges.

NEW, *Administrative Patent Judge.*

DECISION ON APPEAL

SUMMARY

Appellants file this appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1-36. Specifically, the Examiner rejected claims 1-7, 9-16, 18-25, 27-34, and 36 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Ayyagari et al. (US 2001/0024434 A1, September 27, 2001) ("Ayyagari") and Singhal et al. (US 2002/0165990A1, November 7, 2002) ("Singhal"). The Examiner also rejected claims 8, 17, 26, and 35 as unpatentable under 35 U.S.C. § 103(a) as being obvious over the combination of Ayyagari, Singhal, and Matta et al. (US 2003/0142651 A1, July 31, 2003) ("Matta").

We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellants' invention is directed to a system and method for network management in a hybrid wired/wireless local area network. Abstract.

GROUPING OF CLAIMS

Because Appellants argue that the Examiner erred for substantially the same reasons with respect to claims 1-36 we select claim 1 as representative of this group. App. Br. 14, 26. Claim 1 recites:

1. A method for providing network management in a hybrid wired/wireless local area network, the method comprising:

receiving at a network device, from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information;

responsive to said first messaging protocol message, determining at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch; and

distributing by said network device, QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message, wherein said second messaging protocol message is different from said first messaging protocol message.

App. Br. 29.

Appellants argue that the Examiner erred for substantially the same reasons with respect to dependent claims 5, 14, 23, and 32. App. Br. 24.

We select claim 5 as representative. Claim 5 recites:

5. The method according to claim 2, comprising scheduling access by at least one of said plurality of access devices to one or both of said first and/or said second access points.

App. Br. 30.

Appellants argue that the Examiner erred for substantially the same reasons with respect to dependent claims 6, 15, 24, and 33. App. Br. 25.

We therefore select claim 6 as representative of this group. Claim 6 recites:

6. The method according to claim 1, wherein said distributing comprises distributing said QoS information to at least a portion of the hybrid wired/wireless local area network.

App. Br. 30.

Appellants argue that the Examiner erred for substantially the same reasons with respect to dependent claims 7, 16, 25, and 34. App. Br. 26. We therefore select claim 7 as representative of this group. Claim 7 recites:

7. The method according to claim 1, comprising allocating bandwidth to maintain said at least a minimum QoS level.

App. Br. 30.

ISSUES AND ANALYSES

Claim 1

Issue

Appellants argue that the Examiner erred in finding that the combination of Ayyagari and Singhal teaches or suggests the limitation of claim 1 reciting “receiving at a network device, from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information.” We therefore address the issue of whether the Examiner erred in so finding.

Analysis

Appellants contend that Ayyagari’s teaching that “a router i.e., network device, receives QoS request from access pointer [200]” and “the access point 200 sends a message requesting QoS to a router 235” fails to teach the limitation of claim 1 reciting “a first messaging protocol message containing quality of service (QoS) information.” App. Br. 16. According to Appellants, a “message requesting QoS to the router 235” is not the same thing, as a message containing QoS information. *Id.* (emphasis omitted).

Appellants also argue that Ayyagari's "access point 200 sending a message requesting QoS to a router 235" (i.e., the SBM 240), is in fact, relaying an internal message within the access point 200. App. Br. 17 (emphasis omitted). Appellants contend that Ayyagari teaches or suggests that the access point 200 is a computing environment, which includes: a subnet bandwidth manager ("SBM") 240 and authentication software 205, and that the router 235 is internal to the SBM 240. App. Br. 18. Appellants argue that the router 235 is therefore an integral part of the aggregate access point 200 computing environment and, consequently, any message that is sent/received within the aggregate access point 200 computing environment (e.g., the access point 200 sending a message requesting QoS to the router 235), is merely an internal message within the aggregate access point 200 computing environment. *Id.*

Appellants argue further that Singhal fails to teach or suggest that the first messaging protocol is different from the second messaging protocol. App. Br. 21. Appellants assert that Singhal's disclosure of both a wireless network and wired network would not make it obvious to an artisan of ordinary skill in the contemporaneous art to modify Ayyagari to use a different second messaging protocol message for both types of networks (i.e., wired and wireless network). App. Br. 22.

The Examiner responds that the request to the router 235 for QoS is a message containing QoS information because the request itself necessarily contains QoS information so that the network can determine if it can support the requested QoS. Ans. 6. The Examiner finds that Appellants' Specification provides no specific definition as to what the QoS information should consist of; nor is the claim specific as to what the QoS message

should contain. *Id.* Therefore, the Examiner finds that the request for QoS information is a message containing QoS information. *Id.*

The Examiner concedes that the SBM can be a function of the access point environment. *Id.* However, the Examiner finds that the router 235 is nevertheless a separate device from the access point 200. *Id.* The Examiner points to Fig. 2 of Ayyagari, which shows the access point 200 in communication with the router 235 as two separate and distinct devices. *Id.* The access point sends a message requesting QoS to the router 235. *Id.* Furthermore, finds the Examiner, even if access point 200 and the router 235 are the within the same computing environment, an internal message sent from the access point to the router still meets the limitation of claim 1 since it is not claimed that the receiving network device is separate or distinct from the first access point and/or switch. *Id.*

The Examiner also finds that Singhal teaches or suggests the need to have wireless and wired capability in a routing device that can enforce quality of service metrics. Ans. 7 (citing Singhal, ¶ [0006]). The Examiner finds that it is well-known in the art that wired and wireless protocols use different messaging protocols, hence the need for a routing device that can support both. *Id.* The Examiner therefore concludes that it would be obvious to one of ordinary skill in the art that if a router could support both wired and wireless protocols, the router would distribute to wired devices using the wired messaging protocol and the wireless devices using the wireless messaging protocol. *Id.*

We are persuaded by the Examiner's reasoning and adopt it as our own. Claim 1 and Appellants' Specification do not explicitly define the QoS information, and we agree with the Examiner that the message from

the access point 200 would necessarily provide QoS information to the router 235 so that the network could assess whether it could meet the requested QoS metrics.

Further, we agree with the Examiner that Ayyagari teaches or suggests that the access point 200 and the router 235 are discrete units, but even assuming, *arguendo*, that they are not, but are rather units within the SBM, nothing in the language of claim 1 requires that the receiving network device is a device that is necessarily distinct from the first access point and/or switch.

Finally we agree with the Examiner that Singhal's teaching or suggesting wireless and wired capability in a routing device that can enforce quality of service metrics necessarily requires different messaging protocols for wireless and wired messages respectively. We consequently find that the Examiner did not err in finding that the combination of Ayyagari and Singhal teaches or suggests the limitations of claim 1.

Claim 5

Issue

Appellants maintain that the combination of Ayyagari and Singhal does not teach or suggest the limitation of claim 5 reciting "scheduling access by at least one of said plurality of access devices to one or both of said first and/or said second access points." App. Br. 24-25. We therefore address the issue of whether the Examiner so erred.

Analysis

Appellants argue that Ayyagari teaches or suggests that it is the router of SBM 240 (i.e., the aggregate AP 200), and therefore not the wireless devices 210, 215 or 220 (the alleged “access devices”), which distributes the specified QoS to the receiving node 230 and that Singhal does not cure this deficiency. App. Br. 25. Appellants therefore argue that the combination of Ayyagari and Singhal does not teach or suggest the disputed limitation. *Id.*

The Examiner responds that Ayyagari teaches or suggests scheduling transmission of higher priority packets than packets having lower priority. Ans. 7 (citing Ayyagari, ¶ [0031]). The Examiner therefore finds that access by nodes of higher priority will be scheduled before nodes of lower priority. Ans. 7.

We agree with the Examiner. Ayyagari teaches that: “packets with a similar priority level are queued together to ensure earlier transmission of higher priority packets than packets having lower priority.” Ayyagari, [0031]. We find that the Examiner’s interpretation is reasonable, and we therefore conclude that the Examiner did not err.

Claim 6

Issue

Appellants maintain that the combination of Ayyagari and Singhal does not teach or suggest the limitation of claim 6 reciting “said distributing comprises distributing said QoS information to at least a portion of the hybrid wired/wireless local area network.” App. Br. 25. We therefore address the question of whether the Examiner so erred.

Analysis

Appellants argue that Ayyagari teaches or suggests that it is the router of SBM 240 (i.e., the aggregate AP 200), and not the wireless devices 210, 215 or 220 (the alleged “access devices”), which distributes the specified QoS to the receiving node 230. App. Br. 25.

The Examiner responds that QoS information is distributed to at least a portion of the network because it is a QoS request. Ans. 7. The Examiner finds that the request is either approved or denied by the network depending on whether the QoS can be supported. *Id.* Therefore, QoS information is distributed to at least a portion of the hybrid wired/wireless local area network. *Id.*

We agree with the Examiner’s reasoning and adopt it as our own. We therefore conclude that the Examiner did not err in finding that the combination of Ayyagari and Singhal teaches or suggests the disputed limitation.

Claim 7

Issue

Appellants next argue that the combination of Ayyagari and Singhal does not teach or suggest the limitation of claim 7 reciting “allocating bandwidth to maintain said at least a minimum QoS level.” App. Br. 26. We therefore address the issue of whether the Examiner so erred.

Analysis

Appellants argue that Ayyagari discloses that it is the AP 200 (the aggregated AP), and therefore not the wireless devices 210, 215 or 220 (the alleged “access devices”), which allocated time intervals for transmission. App. Br. 26. Appellants argue further that “time interval allocation” is unrelated to “bandwidth allocation,” and that Singhal does not overcome the above deficiencies of Ayyagari. *Id.*

The Examiner finds that allocating time intervals means allocating time that bandwidth is used by a certain device. Ans. 8; *see also* Ans. 5 (citing Ayyagari, ¶¶ [0017]-[0018]).

We agree with the Examiner. Ayyagari teaches or suggests that “[t]he first prong includes reserving bandwidth and/or memory and additional resources for, by way of example, a prescribed time interval at each of the intermediate nodes in a transmission path.” Ayyagari, ¶ [0018]. We are therefore not persuaded by Appellants’ argument, and conclude that the Examiner did not err in finding that the combination of Ayyagari and Singhal teaches or suggests the disputed limitation.

DECISION

The Examiner’s rejection of claims 1-36 as being unpatentable under 35 U.S.C. § 103(a) is affirmed.

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).

AFFIRMED

msc