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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/058,434	02/10/2011	Benjamin P. Niven-Jenkins	RYM-36-2359	1213

23117 7590 04/26/2017
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EXAMINER
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ART UNIT	PAPER NUMBER
2447	

NOTIFICATION DATE	DELIVERY MODE
04/26/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BENJAMIN P. NIVEN-JENKINS and PAUL W. BURKE

Appeal 2015-005834
Application 13/058,434
Technology Center 2400

Before JOHN A. EVANS, LINZY T. McCARTNEY, and JOYCE CRAIG, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] seek our review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of Claims 1–4. App. Br. 16 (Claims App'x).

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

We AFFIRM.[2]

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[1] The Appeal Brief identifies British Telecommunications plc, as the real party in interest. App. Br. 3.

[2] Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed May 27, 2014, "App. Br."), the Reply Brief (filed May 18, 2015, Reply Br."), the Examiner's Answer (mailed March 17, 2015, "Ans."), the Final Action (mailed Sept. 30, 2013, "Final Act."), and the Specification (filed Feb. 10, 2011, "Spec.") for their respective details.

STATEMENT OF THE CASE

The present patent application concerns the operation of content distribution networks. Spec. 1:3.

INVENTION

Claims 1 and 3 are independent. An understanding of the invention can be derived from a reading of exemplary Claim 1, which is reproduced below with some formatting added:

> 1. A network comprising:
>
> access servers arranged to share access to a plurality of content servers whereby content can be retrieved by a requesting entity, each of said content servers having an identical IP address, each said access server being located in a respective routeably isolated subnetwork in which said each access server is associated with one or more of said content servers from which said each access server may retrieve data,
>
> the access servers comprising detection means for detecting a predetermined content delivery condition, and means responsive to the detection means to direct data packets addressed to the IP address common to the content servers to a content server associated with another of said access servers in the network in the event of the predetermined content delivery condition being met.

References and Rejections

The Examiner relies upon the prior art as follows:

Rozen	US 2002/0091760 A1	July 11, 2002
Slocombe et al.	US 2003/0079027 A1	Apr. 24, 2003
Wu	US 2008/0082642 A1	Apr. 3, 2008

1. Claims 1 and 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rozen and Slocombe. Final Act. 13–17.

2. Claims 2 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rozen, Slocombe, and Wu. Final Act. 17–20.

ANALYSIS

We have reviewed the rejections of Claims 1–4 in light of Appellants' arguments that the Examiner erred. We have considered in this Decision only those arguments Appellants actually raised in the Briefs. Any other arguments which Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We are not persuaded that Appellants identify reversible error. Upon consideration of the arguments presented in the Appeal Brief and Reply Brief, we agree with the Examiner that all the pending claims are unpatentable. We adopt as our own the findings and reasons set forth in the rejection from which this appeal is taken and in the Examiner's Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis. We consider Appellants' arguments *seriatim*, as they are presented in the Appeal Brief, pages 7–14.

CLAIMS 1 AND 3: OBVIOUSNESS OVER ROZEN AND SLOCOMBE

Appellants argue these claims as a group and contend they are each patentable in view of the limitations of Claim 1. App. Br. 7.

Routeably isolated subnetwork

The Examiner finds that each of Rozen and Slocombe teaches all the limitations recited in Claims 1 and 3. Final Act. 8.

Appellants contend that the Rozen-Slocombe combination fails to

teach "each said access server being located in a respective routeably isolated subnetwork," as recited in Claim 1 and as commensurately recited in Claim 3. App. Br. 7.

The Examiner finds Slocombe teaches the Internet is made up of many private "*routing networks*," where each of the private "*routing networks*" teaches the claimed "**subnetwork**." Ans. 17 (citing Slocombe ¶ 29). The Examiner finds Slocombe's nodes 76a, 76b, and 76c are connected to entry point routers 74c, 74b, and 74d, respectively, and thus teach the claimed "respective . . . subnetwork." *Id.* (citing Slocombe ¶ 30). In as much as each subnetwork can be identified or distinguished as a separate entity or group, the Examiner finds that each subnetwork is "**isolated**," as claimed. *Id.* Moreover, the Examiner finds each of Slocombe's entry point *routers* 74c, 74b and 74d teaches "**routeably** isolated," and thus, each subnetwork in Slocombe teaches "<u>a respective **routeably isolated subnetwork**</u>," as recited in Claims 1 and 3. *Id.*

Appellants' Reply Brief contrasts their disclosed network architecture with that of Rozen. *See* Reply Br. 2–5 (contrasting Spec. 4; Fig. 1 with Rozen, Fig. 2).

Appellants' argument invites us to compare the network architecture disclosed in the Specification with that disclosed by Rozen. We decline. Claim terms are to be given their broadest reasonable interpretation as they would have been understood by one of ordinary skill in the art, taking into account whatever enlightenment may be provided by the Specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). However, limitations may not be imported into the claims from the Specification. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). The

proper comparison is not of Appellants' disclosure versus that of the prior art. Rather, the proper comparison is the claimed limitations against the teachings of the prior art. In the absence of such a comparison, we are not persuaded the Examiner errs.

Individual access servers

Appellants contend the prior art fails to teach that an access server "direct[s] data packets addressed to the IP address common to the content servers to a content server associated with another access server in that network in the event of the predetermined content delivery condition being met," as recited in Claim 1 and as commensurately recited in Claim 3. App. Br. 7. Appellants characterize Rozen as disclosing a plurality of server farms comprising content servers and associated client servers and BGP (border gateway protocol) servers associated with each server farm. *Id.* Appellants argue the BGP servers are disclosed as maintaining a routing table to identify the locations of the content servers. Thus, re-routing is intrinsic because routing tables are periodically updated. Appellants argue Slocombe teaches a method wherein traffic is addressed to the closest server that is currently advertising its presence. Under failure conditions, the affected server ceases to advertise its DNS address, thus other nodes no longer recognize it and so no longer route to it. *Id.* Appellants contend that neither Rozen, nor Slocombe, teaches the "individual *access servers themselves direct data to a content server associated with another access server in response to the delivery conditions*," as required by independent Claims 1 and 3. *Id.*

The Examiner finds Rosen teaches these limitations. Ans. 20 (citing

Rosen, ¶ 11). The Examiner finds Rosen teaches "the routers that interconnect autonomous systems on the internet already cooperate among themselves to identify the best path from one autonomous system to another." *Id.* The Examiner further finds Rosen teaches "[t]hese routers periodically communicate with each other to identify trouble-spots along each path and to update the best path to circumvent those trouble spots." *Id.* Moreover, the Examiner finds Rosen teaches "[b]y allowing the routers to collectively choose the client's closest available content server, the content delivery system of the invention avoids having to acquire the network specific knowledge that the routers have already accumulated in the course of their operation." *Id.*

Appellants' Reply Brief does not persuasively address this aspect of the Examiner's Answer. We are not persuaded the Examiner errs.

Each access server itself detecting content delivery conditions.

Appellants contend that Rozen requires routing tables to be updated by co-operation between the routers, rather than by each access server itself detecting content delivery conditions and directing data packets accordingly. Appellants further contend that Slocombe teaches requests are simply directed to whichever nodes are currently advertising their availability. In either case, the access servers do not actively redirect data requests, but simply respond to routing instructions generated elsewhere. App. Br. 8.

The Examiner finds Slocombe's "predefined overload threshold" teaches the claimed "predetermined content delivery condition." Ans. 18 (citing Slocombe ¶ 40). The Examiner further finds that Slocombe's "software to monitor the load in various parts of the node cache System"

teaches the claimed "detection means for detecting a predetermined content delivery condition." *Id.* at 8–9. The Examiner finds Slocombe describes the monitoring software as being contained in the CDN node(s), but that it would have been obvious to alternatively place the software in the router(s), because the software and the router(s) are disclosed in the same reference, and placement of the software in the router(s) or node(s) would have been merely a matter of engineering design choice, and placement of the software in the router(s) would enable faster communication by the software to the router(s). Thus, the proposed combination teaches the claimed "access servers comprising detection means for detecting a predetermined content delivery condition." *Id.* The Examiner further finds Rozen discloses "routers [which] periodically communicate with each other to identify trouble-spots." Ans. 20 (quoting Rozen, ¶ 11). The Examiner finds Rozen further discloses "routers [which] periodically communicate with each other . .. to update the best path to circumvent those trouble spots." *Id.* The Examiner finds Rozen thus teaches "the access servers comprising detection means for detecting a predetermined content delivery condition," as claimed.

Appellants' Reply Brief does not persuasively address this aspect of the Examiner's Answer. We are not persuaded the Examiner errs.

Teaching away.

Appellants' contention that Slocombe teaches away from the claimed invention (*see* App. Br. 8) is not persuasive because Appellants fail to allege that Slocombe criticizes, discredits or otherwise disparages the claimed solution. *See PNY Techs., Inc., v. Phison Electronics Corp.*, IPR2013-00472 (PTAB, Feb. 4, 2015) (concluding that the preferences in the reference did

not amount to teaching away because they did not criticize, discredit or otherwise disparage the claimed solution). "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

CLAIMS 2 AND 4: OBVIOUSNESS OVER ROZEN, SLOCOMBE, AND WU

Claim 2, dependent from Claim 1, recites "wherein each access server comprises means for tunnelling data requests to a second access server for delivery to one of said content servers associated with the second access server." App. Br. 16 (Claims App'x). Claim 4, dependent from Claim 3, recites, *inter alia,* "in which in the event of detection by said first access server of the predetermined condition, a content request delivered to the first access server is tunnelled to a second of said access servers." *Id.* at 16–17.

The Examiner finds that Wu teaches those limitations recited in Claims 2 and 4 that are not taught by the combination of Slocombe and Rozen. In particular, the Examiner finds Wu discloses that the networks may contain a network element or functionality that aids in managing the mobile stations (MS) by tunneling packets to other agents in other networks, advertising care-of addresses (CoA) that may serve as the termination point of the tunnel, maintaining current location information for the MS, and/or routing messages between the MS and the dynamic host configuration protocol (DHCP) proxy. Final Act. 11. The Examiner finds that Wu thus teaches each of the claimed "other agents in other networks" and the claimed "a second access server." *Id.* The Examiner further finds that any of the

MS and the DHCP proxy teaches the claimed "one of said content servers associated with the second access server." *Id.* The Examiner finds Wu discloses "[t]he agent 103 may . . . *aid[] in . . . routing messages between* the MS 109 and the DHCP proxy 112" which teaches "data requests to a second access server for delivery to one of said content servers associated with the second access server." *Id.* (citing Wu ¶ 25; Fig. 1). The Examiner makes the related finding that Wu discloses agent 103 may "aid[] in . . . tunneling packets to other agents in other networks" which teaches the claimed "wherein each access server comprises means for tunnelling data requests to a second access server." *Id.*

Appellants limit their traversal to a critique of the alleged shortcomings of Wu and fail to address the Examiner's combination of the three references. *See* App. Br. 14. "[O]ne cannot show non-obviousness by attacking references individually where . . . the rejections are based on combinations of references." *In re Keller*, 642 F.2d 413, 426 (CCPA 1981).

Appellants' Reply Brief does not address the rejection of Claims 2 and 4.

We are not persuaded the Examiner errs.

DECISION

The rejection of Claims 1–4 under 35 U.S.C. § 103 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