# UNITED STATES PATENT AND TRADEMARK OFFICE

**UNITED STATES DEPARTMENT OF COMMERCE**
**United States Patent and Trademark Office**
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 12/935,385 | 09/29/2010 | Ben Strulo | RYM-36-2344 | 3946 |

23117 7590 12/01/2016
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

| EXAMINER |
|---|
| CEHIC, KENAN |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2479 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 12/01/2016 | ELECTRONIC |

**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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOMAIL@nixonvan.com
pair_nixon@firsttofile.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* BEN STRULO, MARC WENNINK, and
GABRIELE CORLIANO[1]

---

Appeal 2014-009557
Application 12/935,385
Technology Center 2400

---

Before DEBRA K. STEPHENS, JASON V. MORGAN, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

MORGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

*Introduction*

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

*Invention*

Appellants disclose a network management sub-system that receives load information relating to present packet flows on existing predetermined paths in a network and, when a request for admittance of a new packet flow

---

[1] Appellants identify British Telecommunications plc as the real party in interest. App. Br. 3.

is received, makes a decision as to whether the new flow should be admitted and on to which path such admission should be made. Abstract.

*Exemplary Claim*

Claim 1, reproduced below with key limitations emphasized, is representative:

> 1. A method of integrated admission control and routing in a packet communications network, comprising the steps:
>
> *receiving*, at a network management sub-system, *load information relating to present packet flows on a plurality of existing network paths from ingress nodes to egress nodes of the network*, said load information being derived from congestion marks associated with packets in said packet flows;
>
> receiving, at the network management sub-system, a request for admittance of a new packet flow on to the network; and
>
> determining, in dependence on the received load information, which path, from said plurality of existing network paths, if any, the requested new packet flow should be admitted to;
>
> whereby the network management sub-system performs both admission control and path selection in respect of the new packet flow in substantially the same process step.

*Rejections*

The Examiner rejects claims 1, 2, 10–12, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Bragg[2] et al. (EP 1759 320 A1; publ.

---

[2] As noted by Appellants (App. Br. 7), the Examiner refers to this reference by the first name ("Nigel"), rather than the last name ("Bragg"), of the first-named inventor. *See*, *e.g.*, Final Act. 2–6. Consistent with Appellants' Briefs, the Examiner's Answer, and convention, we use the first-named inventor's last name ("Bragg") herein. The Examiner's citation to Bragg

Feb. 28, 2007) and Songhurst et al. (US 2006/079783 A1; publ. Aug. 3, 2006). Final Act. 2–6.

The Examiner rejects claims 3 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Bragg, Songhurst, and Dale et al. (US 2007/0147281 A1; publ. June 28, 2007). Final Act. 6–7.

The Examiner rejects claims 4–6, 8, 14–16, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Bragg, Songhurst, and Chamas et al. (US 2011/0249554 A1; publ. Oct. 13, 2011). Final Act. 8–10.

The Examiner rejects claims 7 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Bragg, Songhurst, Chamas, and Rabie et al. (US 2013/0051229 A1; publ. Feb. 28, 2013). Final Act. 11–12.

The Examiner rejects claims 9 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Bragg, Songhurst, Chamas, and Carlson et al. (US 2009/0207731 A1; Aug. 20, 2009). Final Act. 12–13.

ISSUES

1. Did the Examiner err in finding the combination of Bragg and Songhurst teaches or suggests "receiving . . . load information relating to present packet flows on a plurality of existing network paths from ingress nodes to egress nodes of the network," as recited in claim 1?

---

also contained a typographical error (application number 1 75**9** 320 instead of 1 758 320). *See*, *e.g.*, Final Act. 2. Appellants were aware of Bragg (*see* Spec. 4) and were not harmed by this error (*see*, *e.g.*, App. Br. 7–9). Accordingly, we hold this typographical error harmless.

2. Did the Examiner err in concluding it would have been obvious to an artisan of ordinary skill to combine the teachings and suggestions of Bragg and Songhurst in the manner of claim 1?

ANALYSIS

We agree with and adopt as our own the Examiner's findings of facts and conclusions as set forth in the Answer and in the Action from which this appeal was taken. We have considered Appellants' arguments, but do not find them persuasive of error. We provide the following explanation for emphasis.

In rejecting claim 1, the Examiner finds that Bragg's communications among connection controllers (CCs) using a network to network interface (NNI) to exchange information regarding their operational state and the state (including capacity) of their communication links using NNI signaling teaches or suggests *receiving load information relating to present packet flows on a plurality of existing network paths from ingress nodes to egress nodes of the network.* Final Act. 2–3 (citing Bragg ¶¶ 18–22, Fig. 3).

Appellants contend the Examiner erred because "claim 1 relates to <u>present</u> packet flows on <u>existing</u> network path<u>s</u> (i.e., plural)," but that Bragg's admission control step, performed in a centralized CC, involves "deciding whether an <u>un-used</u> route across the network has enough spare capacity to support a new connection, while the 'routing' step involves finding a sequence of links that together go from the ingress to the egress." App. Br. 7; *see* Reply Br. 3 and Bragg ¶ 22. In particular, Appellants contend that "Bragg is clear that [its connection establishment] relates to deciding if the bandwidth is sufficient <u>to establish</u> a connection." App. Br. 8.

Appellants' arguments are not persuasive of error because, as the Examiner correctly finds, Bragg's teachings relate to the receipt of information regarding *available* bandwidth on existing paths. *See* Ans. 4 (citing Bragg ¶¶ 21–23). For example, Bragg notes that "CCs may optionally reserve bandwidth of their . . . communication links so as to avoid race conditions where competing connections are setup over the same resources." Bragg ¶ 21. That is, Bragg teaches or suggests links or paths capacity information relates to present packet flows (e.g., whether bandwidth has been reserved) for existing network paths (over links or paths that may need to avoid *competing* connection setups). Therefore, we agree with the Examiner that Bragg teaches or suggests that "receiving . . . load information relating to present packet flows on a plurality of existing network paths from ingress nodes to egress nodes of the network," as recited in claim 1.

In rejecting claim 1, the Examiner relies on Songhurst, in combination with Bragg, to teach or suggest *load information being derived from congestion marks associated with packets in said packet flows*. Final Act. 4 (citing Songhurst p. 5, ll. 15–33, p. 9, l. 25–p. 10, l. 13). Appellants contend the Examiner erred by failing "to provide a sufficient rationale to substantiate why a person of ordinary skill in the art would modify/combine the features of Bragg using the features from Songhurst." App. Br. 9. In particular, Appellants argue that Songhurst's "token bucket and . . . virtual queue are theoretical models used in order to explain and understand behavior in networks." *Id.* Appellants argue that an artisan of ordinary skill would not have any reason for modifying Bragg with the teachings and suggestions of Songhurst, "let alone for the purpose of converting [Bragg]

into a technique for integrated admission control and routing/path selection." *Id.* at 10; *see also* Reply Br. 4. However, the Examiner correctly notes that Bragg "does not explicitly refer to a specific mechanism for traffic load *measurements* which can be used for admission control decisions." Final Act. 5 (emphasis added). Rather, Bragg merely identifies the *optional* use of bandwidth *reservations*. *See* Bragg ¶ 21. An artisan of ordinary skill would have recognized that if bandwidth is not reserved in Bragg, then the capacity information taught or suggested by Bragg could fail to avoid problems with race conditions between competing connections. *Id.* However, as the Examiner correctly concludes, it would have been obvious to an artisan of ordinary skill to use load measurement information, such as that taught or suggested by Songhurst's explicit congestion notification (ECN) markings, to provide capacity data (i.e., load information relating to present packet flows) sufficient for making admission control decisions. *See* Final Act. 7; Ans. 7–8. Therefore, we agree with the Examiner that it would have been obvious to an artisan of ordinary skill to combine the teachings and suggestions of Bragg and Songhurst in the manner of claim 1.

Accordingly, we sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 1, and claims 10, 11, and 20, which Appellants do not argue separately. Appellants' argue claims 2–9 and 12–19 are patentable for reasons similar to those argued with respect to claim 1. *See* App. Br. 10–12. For the above reasons, we also do not find Appellants' arguments with respect to these claims persuasive. Accordingly, we also sustain the Examiner's 35 U.S.C. § 103(a) rejections of claims 2–9 and 12–19.

DECISION

We affirm the Examiner's decision rejecting claims 1–20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED