

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057807 A1

(51) International Patent Classification⁷: **H04L 12/56**

(21) International Application Number:
PCT/IB2003/004837

(22) International Filing Date: 30 October 2003 (30.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/325,324 20 December 2002 (20.12.2002) US

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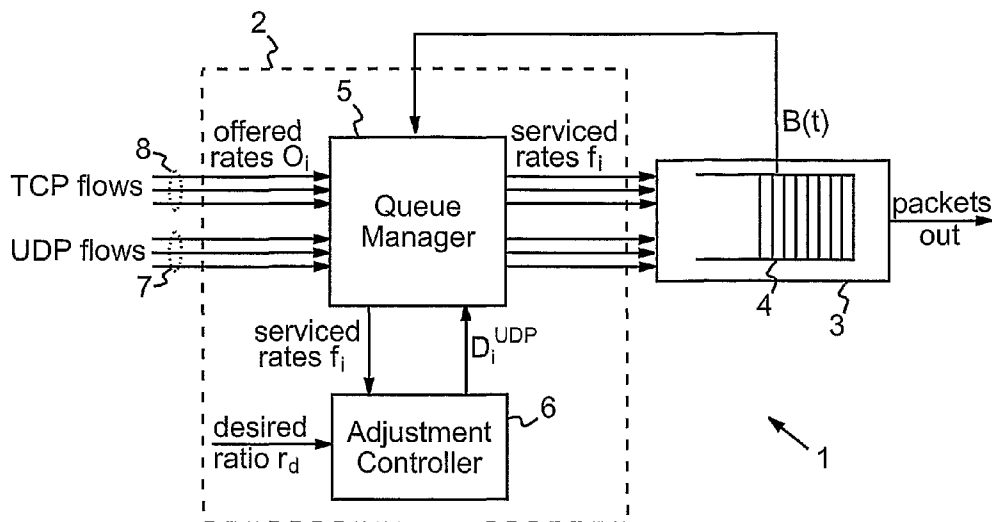
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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

[Continued on next page]

(54) Title: FLOW CONTROL IN NETWORK DEVICES



(57) Abstract: Methods and apparatus are provided for controlling flow rates of a plurality of data packet flows into a queue 4 corresponding to a resource 3 of a network device 1. The flows comprise a set 7 of non-responsive flows, and a set 8 of other flows which may comprise responsive flows and/or flows whose responsiveness is unknown. The flow rates are managed in accordance with a queue management scheme such that adjustments are made to each flow rate in dependence on excess bandwidth in the resource, the amounts of the adjustments being dependent on one or more adjustment parameters for each flow. An error signal is generated based on the deviation from a desired allocation ratio of the ratio of the total flow rates into the queue 4 for the sets of flows 7, 8. At least one adjustment parameter for at least one flow is then varied in dependence on the error signal in such a manner as to reduce the aforementioned deviation. A closed-loop control scheme thus operates in conjunction with the underlying queue management scheme to promote fair bandwidth allocation even in the presence of a mix of responsive and non-responsive flows.



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*