US 20020023168A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0023168 A1

Bass et al. (43) Pub. Date: Feb. 21, 2002

(54) METHOD AND SYSTEM FOR NETWORK PROCESSOR SCHEDULING BASED ON SERVICE LEVELS

(75) Inventors: **Brian Mitchell Bass**, Apex, NC (US); **Jean Louis Calvignac**, Cary, NC (US); **Marco C. Heddes**, Cary, NC (US); **Michael Steven Siegel**, Raleigh, NC (US); **Fabrice Jean Verplanken**, La Gaude (FR)

Correspondence Address:
Joscelyn G. Cockburn
IBM Corporation 2Y7/B656
PO Box 12195
Research Triangle Park, NC 27709 (US)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY

(21) Appl. No.: **09/834,141**

(22) Filed: **Apr. 12, 2001**

Related U.S. Application Data

(63) Non-provisional of provisional application No. 60/196,831, filed on Apr. 13, 2000.

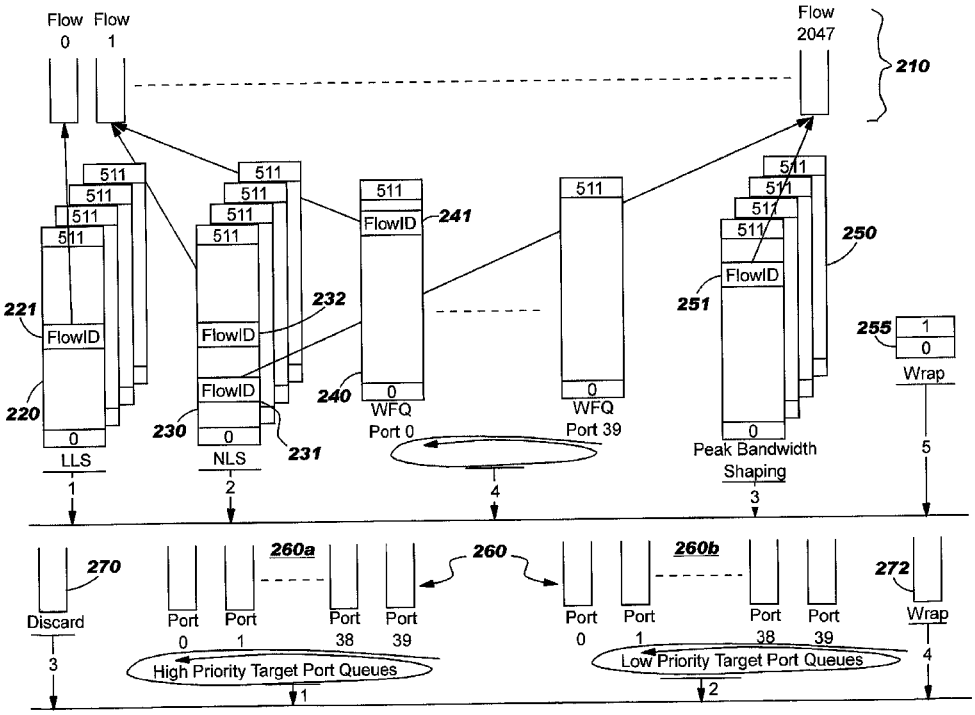
Publication Classification

(51) **Int. Cl.**[7] **G06F 15/16**

(52) **U.S. Cl.** **709/232**

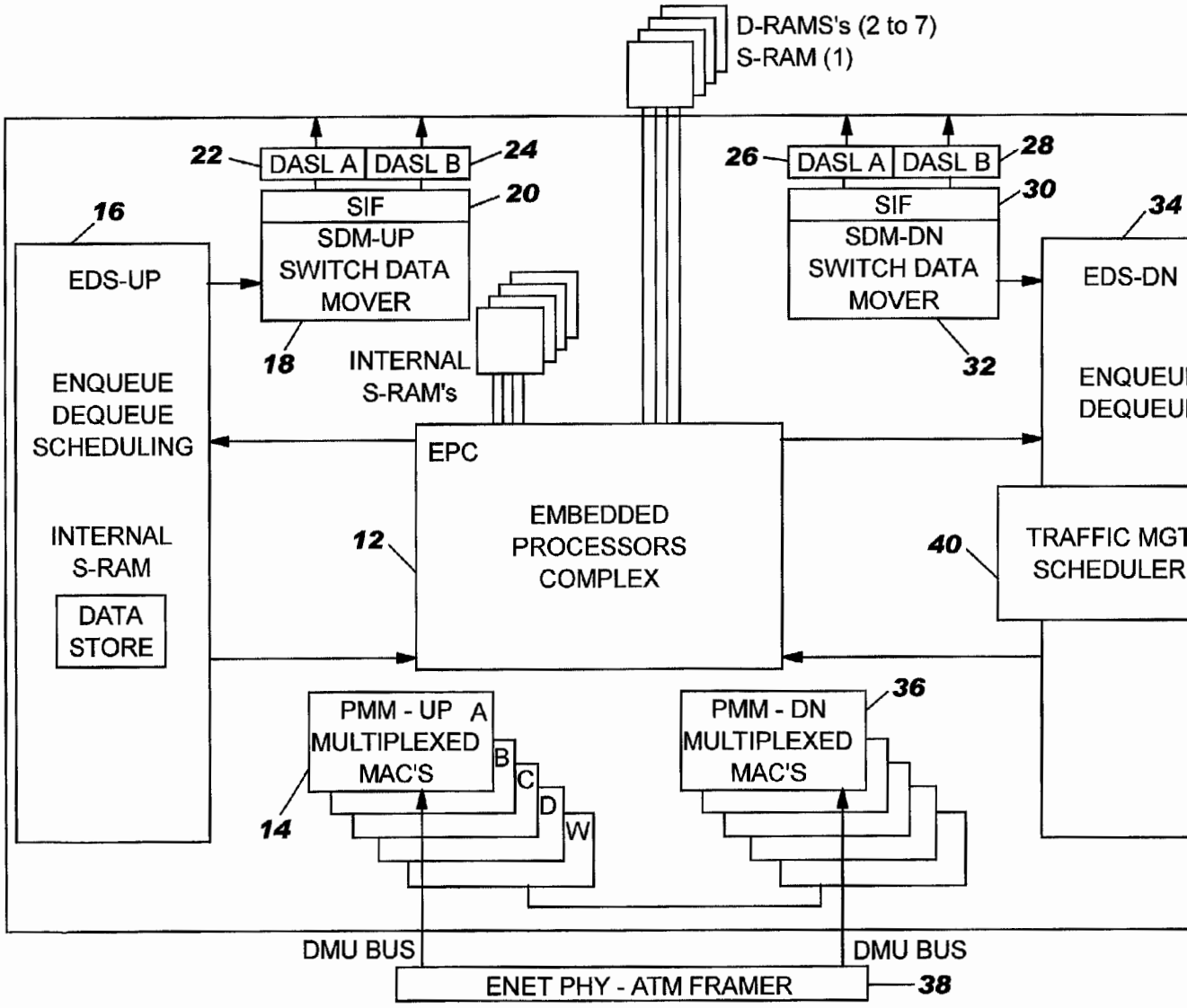
(57) **ABSTRACT**

A system and method of moving information units from an output flow control toward a data transmission network in a prioritized sequence which accommodates several different levels of service. The present invention includes a method and system for scheduling the egress of processed information units (or frames) from a network processing unit according to service based on a weighted fair queue where position in the queue is adjusted after each service based on a weight factor and the length of frame, a process which provides a method for and system of interaction between different calendar types is used to provide minimum bandwidth, best effort bandwidth, weighted fair queuing service, best effort peak bandwidth, and maximum burst size specifications. The present invention permits different combinations of service that can be used to create different QoS specifications. The "base" services which are offered to a customer in the example described in this patent application are minimum bandwidth, best effort, peak and maximum burst size (or MBS), which may be combined as desired. For example, a user could specify minimum bandwidth plus best effort additional bandwidth and the system would provide this capability by putting the flow queue in both the NLS and WFQ calendar. The system includes tests when a flow queue is in multiple calendars to determine when it must come out.

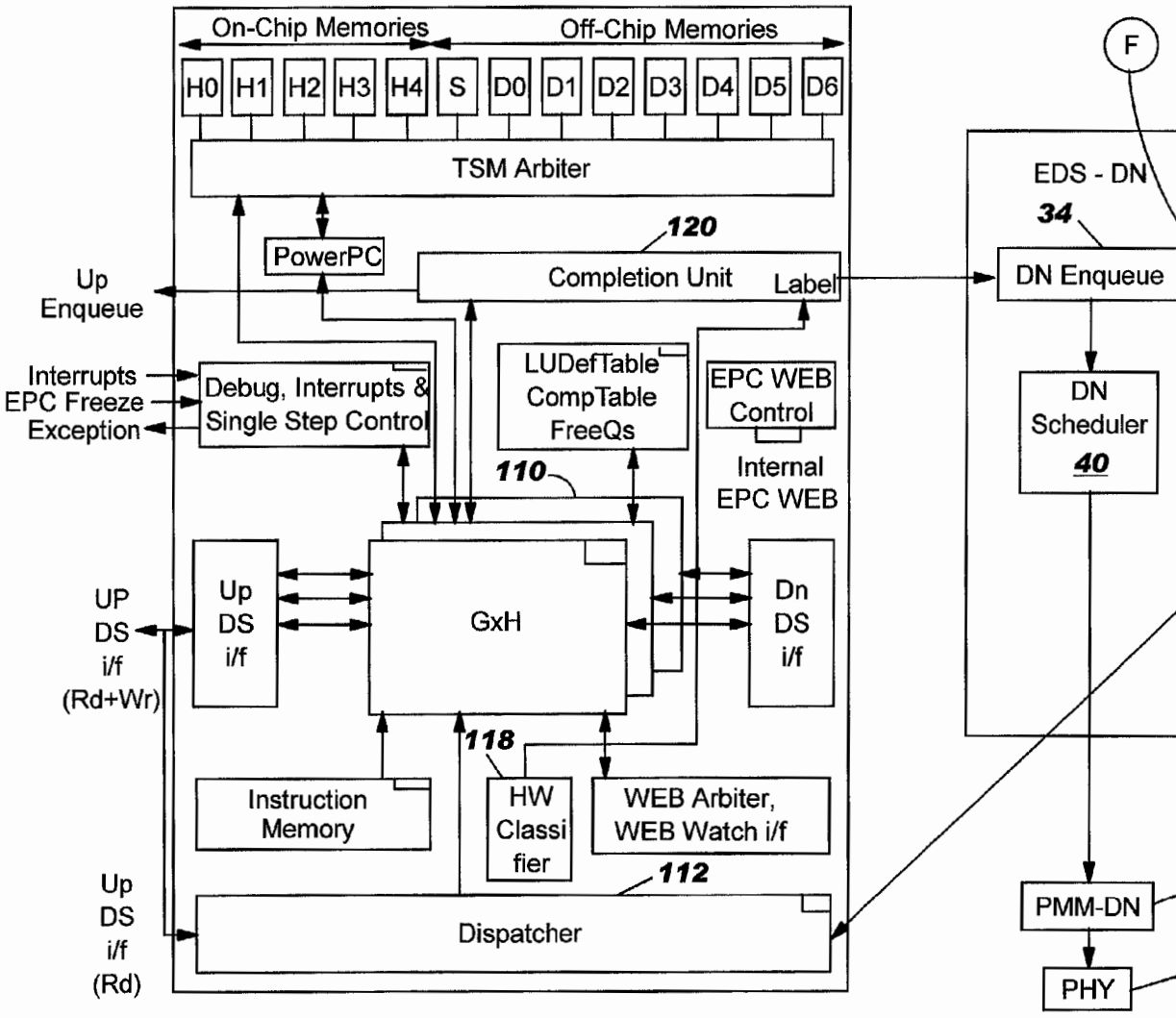


DOCKET ALARM

Find authenticated court documents without watermarks at docketalarm.com.

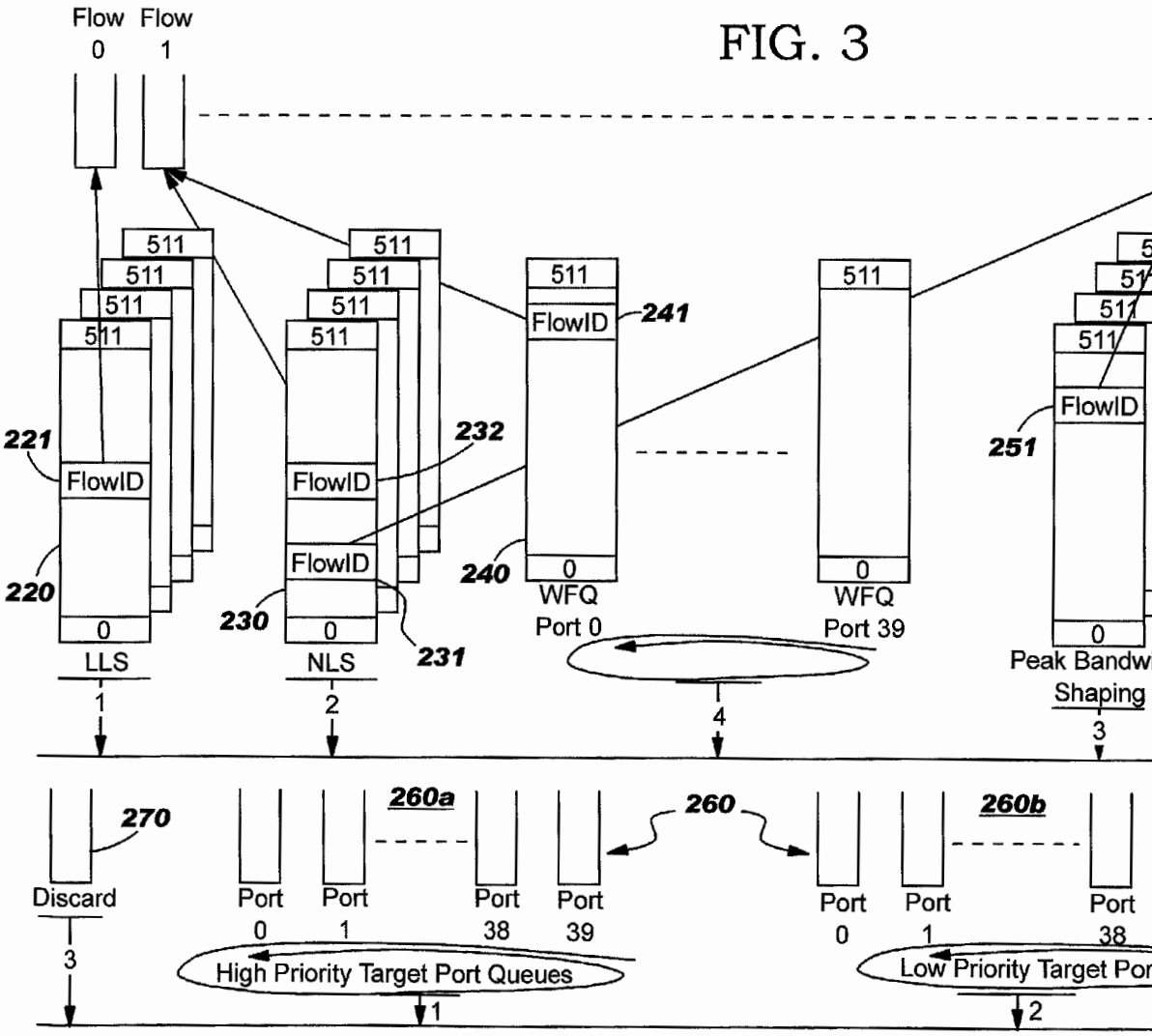


DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.



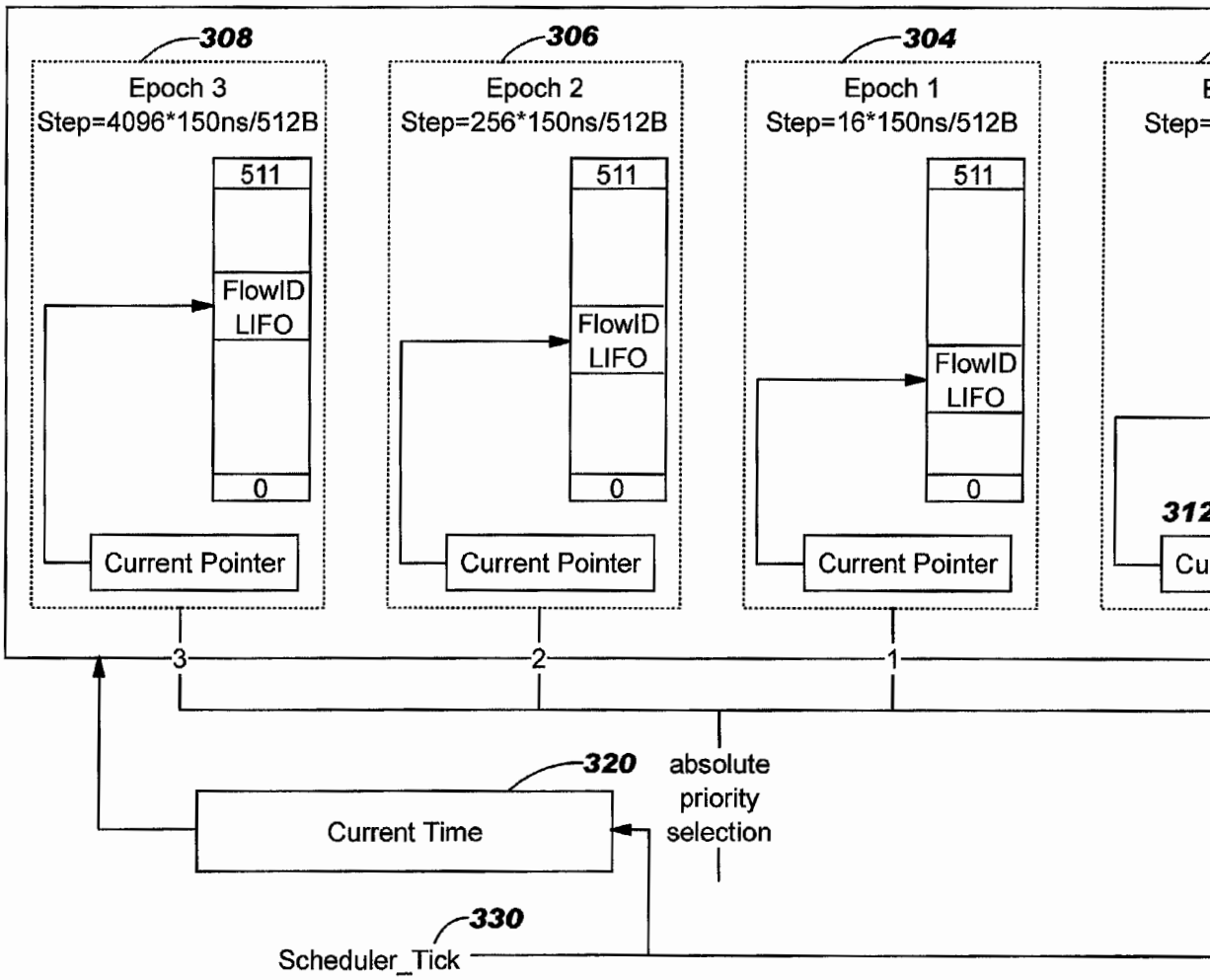
DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 3



DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 4



DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.