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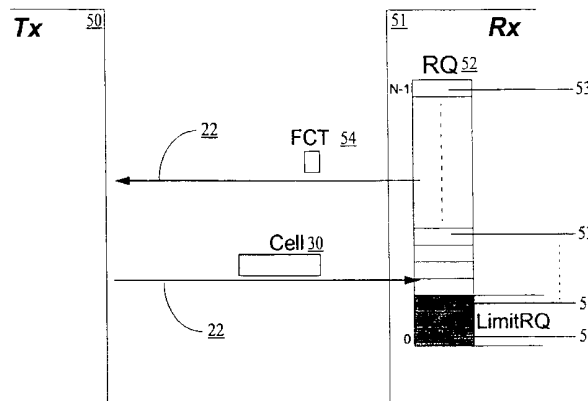
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(54) Title: VIRTUAL CHANNEL FLOW CONTROL



Cells within a flow group is only allowed to occupy LimitRQ of available RQ space at each hop

(57) Abstract: A method and apparatus for virtual channel flow control at the link level, in which the virtual channel allocation is based on DestinationID. At each hop, cells destined for a particular destination are only allowed to occupy a part of the total available receiver buffer space. This flow control enables receiver cell buffer sharing, while maintaining per channel (per connection) bandwidth and loss-less cell transmission. A higher and more efficient utilization of receiver is achieved. In addition the virtual channel flow control method and apparatus described improve latency characteristics by making the virtual channel flow control more predictable, and thus provide a method for congestion control. At last the present invention implicitly addresses: Injection rate control; Failed network components (e.g. Host Adapters/IO-subsystems/Bridges/Switches/Routers/etc.). Both the above problems cause network buffers to be filled up and may lead to watchdog time-out at the transmitter. Watchdog time-out leads to retransmission, which causes performance degradation of the network.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04L 12/56, H04Q 11/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04L, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2321820 A (3COM TECHNOLOGIES), 5 August 1998 (05.08.98), page 3, line 18 - page 4, line 12 --	1-11
A	US 5633861 A (RAYMOND H. HANSON ET AL), 27 May 1997 (27.05.97), column 2, line 38 - column 3, line 17 --	1-11
A	US 5896511 A (THOMAS A. MANNING ET AL), 20 April 1999 (20.04.99), column 2, line 15 - line 58 -- -----	1

 Further documents are listed in the continuation of Box C.
 See patent family annex.

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Information on patent family members

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