Title (en)
HIERARCHICAL SCHEDULES FOR DIFFERENT ATM TRAFFIC

Title (de)
HIERARCHISCHE ZEITSCHLITZZUWEISUNGEN FÜR UNTERSCHIEDENEN ATM-VERKEHR

Title (fr)
ORDONNANCEMENT HIERARCHIQUE POUR DIVERS TYPES DE TRAFIC ATM

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Application
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Abstract (en)
[origin: WO9926378A2] An ATM scheduler in accordance with the invention supports multiple transmission traffic types (e.g. CBR, VBR and ABR) for each of a plurality of virtual path connections (VPCs) on an ATM link. The scheduler uses a static scheduling table and maintains one or more dynamic scheduling tables. The scheduling table defines the hierarchy of traffic types and the scheduling for each type of traffic within each virtual path. In each cell transmit time, the scheduler indexes a line of the static table to identify one VPC assigned the opportunity to transmit in the respective cell transmit time. The scheduler reviews a field in the indexed line of the static table to determine if there is a high priority service virtual circuit connection (VCC) that has been assigned the current cell time slot, e.g. for constant bit rate (CBR) traffic. If so, then the scheduler provides the transmit opportunity for that VCC. Also, during processing for each cell transmit time, the ATM scheduler obtains a pointer to a link list from the dynamic table and retrieves the link list from memory. The link list identifies at least one available bit rate (ABR) service type VCC. During each respective cell transmit time, if the processing relating to the high priority service(s) did not result in cell transmission, the scheduler selects one of the identified ABR service type VCCs, either directly from the currently accessed link list or from a work list compiled from link lists accessed over a series of cell transmit times. The scheduler initiates transmission of a cell for the selected ABR circuit over the link in the respective cell transmit time.

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