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(54) Title: EDGE-BASED PER-FLOW QoS ADMISSION CONTROL IN A DATA NETWORK

(57) Abstract: In one embodiment of the invention, a network system includes a boundary router, a second router, and an upstream link of the second router coupled between to the output port of the boundary router and an input port of the second router. The second router includes an admission control function and a data plane. In response to a request to reserve resources for a flow through the second router, the admission control function performs admission control for both the upstream link and its downstream link. In a preferred embodiment, the second router performs admission control for the upstream link only if the second router is a receiving edge router for the flow. Because the second router performs admission control for its upstream link, the boundary router transmits the request toward an upstream router without performing admission control for the link.