2000 Paper 9 Question 3

Digital Communication II

Consider the IntServ (RSVP based) and DiffServ QoS Architectures.

(a) Compare the nature of "guarantee" that is made in each and the time scale on which these are altered. [6 marks]

(b) Compare where state resides in each case, and how much state there is. [3 marks]

(c) Compare the number of control interactions that a core router in each architecture would engage in. [3 marks]

(d) Compare the resource efficiency of each scheme in terms of link bandwidth. [Hint: consider single-ended Service-Level Agreements (SLAs).] [3 marks]

(e) Describe the architecture of a core router in a DiffServ environment, recalling that each packet will have a Type of Service field describing its designated Per Hop Behaviour. [5 marks]