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Autore	Evans John
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Policing and Metering; 2.2.4 Queuing, Scheduling, Shaping, and Dropping; 2.2.5 Link Fragmentation and Interleaving; 2.3 IP QOS Architectures; 2.3.1 A Short History of IP Quality of Service 2.3.2 Type of Service/IP Precedence 2.3.3 Integrated Services Architecture; 2.3.4 Differentiated Services Architecture; 2.3.5 IPv6 QOS Architectures; 2.3.6 MPLS QOS Architectures; 2.3.7 IP Multicast and QOS; 2.4 Typical Router QOS Implementations in Practice; 2.5 Layer 2 QOS; 2.5.1 ATM; 2.5.2 Frame-relay; 2.5.3 Ethernet; 2.6 Complementary Technologies; 2.7 Where QOS cannot make a difference; References; Appendix 2.A: Precedence, TOS, and DSCP Conversion; 2.A.1 Notation; 2.A.2 Conversion; Chapter 3 Deploying Diffserv; 3.1 Introduction; 3.2 Deploying Diffserv at the Network Edge 3.2.1 Why is the Edge Key for Tight SLA Services? 3.2.2 Edge Diffserv Case Study; 3.3 Deploying Diffserv in the Network Backbone; 3.3.1 Is Diffserv Needed in the Backbone?; 3.3.2 Core Case Study; 3.4 Tuning (W)RED; 3.4.1 Tuning the Exponential Weighting Constant; 3.4.2 Tuning Minth and Maxth; 3.4.3 Mark Probability Denominator; 3.4.4 In- and Out-of-contract; References; Chapter 4 Capacity Admission Control; 4.1 Introduction; 4.1.1 When is Admission Control Needed?; 4.1.2 A Taxonomy for Admission Control; 4.1.3 What Information is Needed for Admission Control? 4.1.4 Parameterized or Measurements-based Algorithms 4.2 Topology-unaware Off-path CAC; 4.3 Topology-aware Off-path CAC: "Bandwidth Manager"; 4.3.1 Example Bandwidth Manager Method of Operation: Next Generation Network Voice CAC; 4.4 The Integrated Services Architecture/RSVP; 4.4.1 RSVP; 4.4.2 RSVP Example Reservation Setup; 4.4.3 Application Signaling Interaction; 4.4.4 Intserv over Diffserv; 4.4.5 RSVP Aggregation; 4.4.6 RSVP Traffic Engineering; 4.5 NSIS; 4.6 End-system Measurement-based Admission Control; 4.7 Summary; References; Chapter 5 SLA and Network Monitoring; 5.1 Introduction 5.2 Passive Network Monitoring

Sommario/riassunto

QoS, short for "quality of service," is one of the most important goals a network designer or administrator will have. Ensuring that the network runs at optimal precision with data remaining accurate, traveling fast, and to the correct user are the main objectives of QoS. The various media that fly across the network including voice, video, and data have different idiosyncrasies that try the dimensions of the network. This malleable network architecture poses an always moving potential problem for the network professional. The authors have provided a comprehensive treatise on this subje
