1. Record Nr. UNINA9911019614303321 Autore Welzl Michael <1973-> **Titolo** Network congestion control: managing Internet traffic // Michael Welzl Pubbl/distr/stampa Chichester, West Sussex, England; ; Hoboken, NJ, : J. Wiley, c2005 **ISBN** 9786610287598 9781280287596 1280287594 9780470025314 047002531X 9780470025291 0470025298 Descrizione fisica 1 online resource (283 p.) Collana Wiley Series on Communications Networking & Distributed Systems Disciplina 004.67/8 Soggetti Internet Telecommunication - Traffic - Management Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references (p. [243]-257) and index. Nota di contenuto Network Congestion Control: Contents: Foreword: Preface: List of Tables: List of Figures: 1 Introduction: 1.1 Who should read this book?: 1.2 Contents; 1.3 Structure; 1.3.1 Reader's guide; 2 Congestion control principles; 2.1 What is congestion?; 2.1.1 Overprovisioning or control?; 2.2 Congestion collapse; 2.3 Controlling congestion: design considerations; 2.3.1 Closed-loop versus open-loop control; 2.3.2 Congestion control and flow control; 2.4 Implicit feedback; 2.5 Source behaviour with binary feedback; 2.5.1 MIMD, AIAD, AIMD and MIAD; 2.6 Stability; 2.6.1 Control theoretic modelling 2.6.2 Heterogeneous RTTs2.6.3 The conservation of packets principle; 2.7 Rate-based versus window-based control; 2.8 RTT estimation; 2.9 Traffic phase effects: 2.9.1 Phase effects in daily life; 2.10 Queue management; 2.10.1 Choosing the right queue length; 2.10.2 Active queue management; 2.11 Scalability; 2.11.1 The end-to-end argument; 2.11.2 Other scalability hazards; 2.12 Explicit feedback; 2.12.1 Explicit congestion notification; 2.12.2 Precise feedback; 2.13 Special

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Sommario/riassunto

As the Internet becomes increasingly heterogeneous, the issue of congestion control becomes ever more important. In order to maintain good network performance, mechanisms must be provided to prevent the network from being congested for any significant period of time. Michael Welzl describes the background and concepts of Internet congestion control, in an accessible and easily comprehensible format. Throughout the book, not just the how, but the why of complex technologies including the Transmission Control Protocol (TCP) and Active Queue Management are explained. The text also gives