

IEEE INFOCOM '92

The Conference on Computer Communications



One World through Communications

Eleventh Annual Joint Conference of the IEEE Computer and Communications Societies

Florence, Italy

Proceedings

Volume 2 of 3

Volume	Day	Sessions	Pages
1	Wednesday	1A - 3D	0001 - 0467
2	Thursday	4A - 7D	0469 - 1033
3	Friday	8A - 11D	1035 - 2515

EXHIBIT

Ex. 1011



IEEE COMMUNICATIONS
SOCIETY

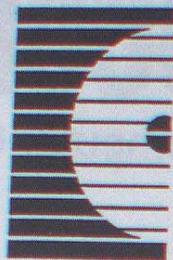


THE INSTITUTE OF ELECTRICAL
AND ELECTRONICS ENGINEERS, INC.



THE COMPUTER SOCIETY

004.6
IE2P
1992:2



IEEE COMMUNICATIONS SOCIETY

Additional sets of Volumes 1, 2, and 3 may be ordered from:

IEEE Service Center
Publications Sales Department
445 Hoes Lane
P.O. Box 1331
Piscataway, New Jersey 08855-1331

IEEE INFOCOM '92

IEEE Catalog No.:	92CH3133-6
ISBN Numbers:	0-7803-0602-3 Softbound
	0-7803-0603-1 Casebound
	0-7803-0604-X Microfiche

Library of Congress No.: 86-640672 Serial
IEEE Computer Society Order No.: 2860

COPYRIGHT AND REPRINT PERMISSIONS:

Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limits of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 20 Congress St., Salem, Mass. 01970. Instructors are permitted to photocopy isolated articles for noncommercial classroom use without fee. For other copying, reprint or republications permission, write to Director, Publishing Services, IEEE, 345 East 47th St., New York, NY 10017. All rights reserved. Copyright © 1992 by the Institute of Electrical and Electronics Engineers, Inc.

Table of Contents

Message from the General Chair	xv
Message from the Technical Chairs	xvi
Technical Program Committee	xvii
Organizing Committee	xix
Reviewers	xx
Author Index	xxiii
Session Chairs	xxvi

VOLUME I

1A. Bandwidth Allocation

"A Unified Approach to Bandwidth Allocation and Access Control in Fast Packet-Switched Networks"	0001
<i>R. Guerin, IBM T. J. Watson Research Center, USA; L. Gun, Network Analysis Center, Communications Systems, USA</i>	
"Layered Required Bandwidth for Heterogeneous Traffic"	0013
<i>J. Hui, Rutgers University, USA</i>	
"Bandwidth Quantization in the Broadband ISDN"	0021
<i>C.-T. Lea, A. Alyatama, Georgia Institute of Technology, USA</i>	
"Adaptive Bandwidth Allocation by Hierarchical Control of Multiple ATM Traffic Classes"	0030
<i>R. Bolla, F. Davoli, Universita di Genova, Italy; A. Lombardo, S. Palazzo, D. Panno, Universita di Catania, Italy</i>	

1B. Optical Networks 1

"Rooted Routing in Linear Lightwave Networks"	0039
<i>M. Kovacevic, M. Gerla, UCLA, USA</i>	
"Fault Tolerant PON Topologies"	0049
<i>M. Gerla, UCLA, USA; P. Camarda, Politecnico di Bari, Italy; C. Chiaretti, ITALTEL, Italy</i>	
"Optical Distribution Channel: An 'Almost-all' Optical LAN Based on the Field-coding Technique"	0057
<i>Z. Haas, R. Gitlin, AT&T Bell Labs, USA</i>	
"Local Optical Distribution"	0068
<i>J. Hayes, F. Ayadi, Concordia University, Canada</i>	

1C. Video Modelling

"TES-Based Traffic Modeling for Performance Evaluation of Integrated Networks"	0075
<i>B. Melamed, B. Sengupta, NEC USA, Inc., USA; D. Raychaudhuri, J. Zdepski, David Sarnoff Research Center, USA</i>	
"A Look at the MPEG Video Coding Standard for Variable Bit Rate Video Transmission"	0085
<i>P. Pancha, M. El Zarki, University of Pennsylvania, USA</i>	
"A Histogram-based Model for Video Traffic Behavior in an ATM Network Node with an Application to Congestion Control"	0095
<i>P. Skelly, M. Schwartz, Columbia University, USA; S. Dixit, GTE Labs, Inc., USA</i>	
"Modeling of Motion Classified VBR Video Codecs"	0105
<i>F. Yegenoglu, B. Jabbari, George Mason University, USA; Y.-Q. Zhang, GTE Labs, USA</i>	

1D. Buffering in ATM Switches

"Improving the Performance of Input-Queued ATM Packet Switches"	0110
<i>M. Karol, K. Eng, AT&T Bell Labs, USA; H. Obara, NTT Transmission Systems Labs, Japan</i>	
"On the Multiple Shared Memory Module Approach to ATM Switching"	0116
<i>S. Wei, Purdue University, USA; V. Kumar, AT&T Bell Labs, USA</i>	
"Performance Analysis of Multistage Interconnection Networks with Shared-Buffered Switching Elements for ATM Switching"	0124
<i>A. Monterosso, A. Pattavina, Politecnico di Milano/CEFRIEL, Italy</i>	
"A Buffer Management Scheme for the SCOQ Switch Under Nonuniform Traffic Loading"	0132
<i>D. Chen, J. Mark, University of Waterloo, Canada</i>	

6A. Policing and Shaping in ATM Networks	
"Peak Rate Enforcement in ATM Networks"	0753
<i>F. Guillemin, P. Boyer, A. Dupuis, L. Romoeuf, CNET, France</i>	
"Dimensioning Criteria for Policing Functions in ATM Networks"	0759
<i>P. Castelli, A. Tonetti, CSELT, Italy; A. Forcina, SIP, Italy</i>	
"A Generalization of Some Policing Mechanisms"	0767
<i>B. Lague, C. Rosenberg, Ecole Polytechnique de Montreal, Canada; F. Guillemin, CNET, France</i>	
"A Scheme for Smoothing Delay-Sensitive Traffic Offered to ATM Networks"	0776
<i>T. Ott, T. Lakshman, A. Tabatabai, Bellcore, USA</i>	
6B. Media Access	
"A New Competitive Algorithm for Group Testing"	0786
<i>A. Bar-Noy, I. Kessler, S. Kutten, IBM T. J. Watson Research Center, USA; F. Hwang, AT&T Bell Labs, USA</i>	
"Performance Analysis of the Rotating Slot Generator Scheme"	0794
<i>D. Karvelas, M. Papamichail, New Jersey Institute of Technology, USA; G. Polyzos, University of California, San Diego, USA</i>	
"A Versatile Access Scheduling Scheme for Real-Time Local Area Networks"	0804
<i>K. Chen, ENST PARIS, France</i>	
"Performance Issues in CRMA Networks for Integrated Broadband Communications"	0811
<i>M. De Sanctis, L. Proletti, R. Bausani, ERICSSON FATME, Italy; M. Listanti, L. Gratta, R. Winkler, Fondazione Ugo Bordoni, Italy</i>	
6C. Multiplexer Performance	
"Modeling and Analysis of a Variable Bit Rate Video Multiplexer"	0817
<i>G. Ramamurthy, B. Sengupta, NEC USA, Inc., USA</i>	
"Performance Analysis of Statistical Multiplexing of VBR Sources"	0828
<i>C. Blondia, University of Nijmegen, The Netherlands; O. Casals, Universitat Politècnica de Catalunya, Spain</i>	
"On the Asymptotic Behavior of Heterogeneous Statistical Multiplexer"	0839
<i>K. Sohraby, IBM T. J. Watson Research Center, USA</i>	
"Analysis of Multimedia Traffic Queues with Finite Buffer and Overload Control, Part II: Applications"	0848
<i>J. Ye, Hughes LAN Systems, USA; S. Li, The University of Texas at Austin, USA</i>	
6D. Fault Tolerance and Multicasting in ATM Switches	
"Quad Tree: A Cost-Effective Fault-Tolerant Multistage Interconnection Network"	0860
<i>P. Bansal, K. Singh, R. Joshi, University of Roorkee, India</i>	
"Fault Tolerance of Banyan Using Multiple-Pass"	0867
<i>T.-H. Lee, J.-J. Chou, National Chiao Tung University, Taiwan</i>	
"Design of a Nonblocking Shared-Memory Copy Network for ATM"	0876
<i>R. Bianchini, H. Kim, Carnegie Mellon University, USA</i>	
"A Fair High-Speed Copy Network for Multicast Packet Switch"	0886
<i>T.-H. Lee, S.-J. Liu, National Chiao Tung University, Taiwan</i>	

IPR2016-00726-ACTIVISION,
EA, TAKE-TWO, 2K, ROCKSTAR, Ex. 1011, p. 4 of 17

7A. Congestion Control for BISDN

"A Generic Flow Control Protocol for B-ISDN"	0895
Z. Budrikis, G. Mercankosk, QPSX Communications, Australia; M. Blasikiewicz, University of Western Australia, Australia; M. Zukerman, L. Yao, P. Potter, Telecom Research Labs, Australia	
"Congestion Avoidance in ATM Networks"	0905
E. Sykas, I. Paschalidis, G. Mourtzinou, K. Vlakos, National Technical University of Athens, Greece	
"A Generalized Processor Sharing Approach to Flow Control in Integrated Services Networks - The Single Node Case"	0915
A. Parekh, R. Gallager, Massachusetts Institute of Technology, USA	
"A Two-Layer Congestion Control Protocol for Broadband ISDN"	0925
Z. Ren, Cogent Data Technologies, USA; J. Meditch, University of Washington, USA	

7B. LANs

"Token Ring Reliability Models"	0934
J. Spragins, Clemson University, USA	
"Using Statistical Bandwidth in Token Ring Networks"	0944
J. Zhu, R. Denton, Lehigh University, USA	
"Performance Analysis of an Adaptive Token Bus Protocol"	0952
K. Lye, K. Seah, K. Chua, National University of Singapore, Singapore	
"A Study on the Inaccessibility Characteristics of ISO 8802/4 Token-Bus LANs"	0958
J. Rufino, P. Verissimo, Technical University of Lisboa, Portugal	

7C. Queueing Networks

"Analysis of a Queueing Network Model with Class Dependent Window Flow Control"	0968
H. Perros, North Carolina State University, USA; Y. Dallery, G. Pujolle, Universite Pierre et Marie Curie, France	
"Approximate Analysis of the End-to-End Delay in ATM Networks"	0978
H. Kroner, M. Eberspacher, T. Theimer, P. Kuhn, U. Briem, University of Stuttgart, Germany	
"An Admission Control Model Through Outband Signalling Management"	0987
W. Liu, I. Akyildiz, Georgia Institute of Technology, USA; U. Krieger, Research Institute of DBP Telekom, Germany	
"A Decomposition Method for the Exact Analysis of Circuit-Switched Networks"	0996
A. Conway, GTE Labs, USA; E. Pinsky, Boston University, USA	

7D. Network Services

"Switched High-Speed Service - Architecture and Impacts"	1004
M. Lazer, Bellcore, USA	
"Customized Service Creation: A New Order For Telecommunication Services"	1014
P. Zolzettich, Telesoft America, Inc., USA; A. Ephrath, Bellcore, USA	
"Integrated Network Management: Technologies and Implementation Experience"	1020
S. Rabie, BNR, Canada	
"Network Architecture and Functional Requirements for UPT"	1028
R. Pandya, University of Adelaide, Australia	

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.