

The 8th International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 98)

Kaetsu Lecture Theatre, New Hall, Cambridge, UK

8-10 July, 1998

Hosted By:

The Systems Research Group

Computer Laboratory

University of Cambridge

and

Microsoft Research Limited

Cambridge

in collaboration with IEEE Computer Society

Objectives

The 8th International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 98) is the international workshop concerned with state of the art technology in networking and operating system support for multimedia systems. For seven years, NOSSDAV has proven to be an outstanding forum for researchers involved in building innovative multimedia systems, networks and applications in both industry and academia.

A key aspect of the workshop is that it provides extensive discussion periods during which attendees can informally discuss their current work and future research directions. Traditionally, NOSSDAV has emphasized high quality experimental research based on prototype or real systems.

NEWS:

Monday 17th August:

Conference proceedings are available electronically as [individual papers](#). A small number of printed copies are also available, costing £17.50 for shipping to the UK, £20.00 elsewhere. Contact nossdav98@cl.cam.ac.uk for details.

Dates

Submission Deadline for Full Papers:	1 March 1998
Acceptance Notification for Full Papers:	30 April 1998
Final Papers Due:	30 May 1998
Short Papers Due:	30 March 1998
Acceptance Notification for Short Papers:	30 April 1998
Workshop:	8-10 July 1998

Program Chairs

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Review Committee

- Simon Crosby, Cambridge University, UK
- Chuck Kalmanek, AT&T Research
- Jim Kurose, University of Massachusetts
- Ian Leslie, Cambridge University, UK
- Tom Little, Boston University
- Derek McAuley, University of Glasgow, UK
- Duane Northcutt, Sun Microsystems
- Guru Parulkar, Washington University St Louis
- Henning Schulzrinne, Columbia University
- Dan Swinehart, Xerox PARC
- Hide Tokuda, Keio University

Program Committee

Review Committee plus

- Domenico Ferrari, Universita Cattolica, Italy
 - Kevin Jeffay, University of North Carolina
 - Mike Jones, Microsoft
 - Doug Shepherd, Lancaster University, UK
 - Burkhard Stiller, ETH Zurich, Switzerland
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Technical Programme

Presentations are either long papers (L) or short papers (S). Long papers are given 30 minutes (20 minutes presentation followed by 10 minutes discussion) and short papers 15 minutes (10 minutes presentation followed by 5 minutes discussion). The emphasis is not on didactic presentation, but on discussion and interaction. The aim of the workshop is to stimulate debate and discussion in an informal setting.

Wednesday 8 July

Session AM 1: Network Control

9.00

(L) Programmable Mobile Networks

*Oguz Angin, Andrew T. Campbell, Michael E. Kounavis, and Raymond R.-F. Liao
COMET Group, Center for Telecommunications Research*

9.30

(L) Efficient Precomputation of Quality-of-Service Routes

*Anees Shaikh, Jennifer Rexford and Kang G. Shin
University of Michigan/AT&T Labs -- Research*

10.00

(L) A Soft State Protocol for Accessing Multimedia Archives>

Angela Schuett, Suchitra Raman, Yatin Chawathe, Steven McCanne and Randy Katz University of California at Berkeley

10.30 - 11.00

Morning coffee

Session AM 2: IP Telephony

11.00

(L) Architecture for Signaling, Directory Services and Transport for Packet Telephony

*N. Anerousis, R. Gopalakrishnan, C.R. Kalmanek, A.E. Kaplan, W.T. Marshall, P.P. Mishra, P.Z. Onufryk, K.K. Ramakrishnan, and C.J. Sreenan
AT&T Labs - Research*

11.30

(L) Routing Traffic with Quality-of-Service Guarantees in Integrated Services Networks

*Qingming Ma and Peter Steenkiste
Cisco Systems/Computer Science Department, Carnegie Mellon University*

12.00

(L) Design and Evaluation of a Platform for Mobile Packet Telephony

*Sandesh Goel, Partho Mishra, Huzur Saran and Cormac Sreenan
AT&T Labs - Research*

12.30

(S) A Comparison of SIP and H.323 for Internet Telephony

*Jonathan Rosenberg and Henning Schulzrinne
Bell Laboratories, Lucent Technologies / Columbia University*

13.00 - 14.00

Lunch

Session PM 1: Operating Systems

14.00

(S) A new audio device driver abstraction

*Dickon Reed
University of Cambridge*

14.15

(S) Adaptive Resource Management in a Multimedia Operating System

*Don Oparah
Computer Laboratory, University of Cambridge*

14.30
(S) On Using Intelligent Network Interface Cards to support Multimedia Applications
*Marc E. Fiuczynski, Richard P. Martin, Tsutomu Owa, Brian N. Bershad
Univ. of Washington*

14.45
(S) Supporting Continuous Media in the Piglet OS
*Steve Muir and Jonathan Smith
University of Pennsylvania*

15.00
(S) Multimedia on Multiprocessors: Where's the OS when you really need it?
*Jason Nieh and Monica S. Lam
Stanford / Sun Microsystems*

15.15
(S) Issues in using commodity operating systems for time-dependent tasks: experiences from a study of Windows NT
*Michael B. Jones
Microsoft Research*

15.30
(S) An Efficient End-Host Protocol Processing Architecture for Real-Time Audio and Video Traffic
*Khawar M. Zuberi and Kang G. Shin
Real-Time Computing Laboratory (RTCL)*

15.45 - 16.15
Afternoon tea

Session PM 2: Panel - Operating Systems

Thursday 9 July

Session AM 3: Network Resource Allocation

9.00
(L) LIRA: An approach for service differentiation in the Internet
*Ion Stoica and Hui Zhang
Carnegie Mellon University*

9.30
(L) Processor Scheduling in Routers for RSVP Message-Processing
*Martin May, T.V. Lakshman and Anwar Elwalid
Bell Labs*

10.00
(L) YESSIR: A Simple Reservation Mechanism for the Internet
*Ping Pan and Henning Schulzrinne
IBM / Columbia University*

10.30

(S) Resource Reservation Agents in the Internet

Olov Schelen and Steve Pink

Luleå University, Sweden

10.45

(S) Achieving Quality of Service through Network Performance Management

S. Keshav and R. Sharma

Cornell Network Research Group

11.00 - 11.30

Morning Coffee

Session AM 4: Performance Modelling/Optimisation

11.30

(L) On the Effectiveness of Buffer in Deterministic Services

Pawan Goyal and Harrick M. Vin

12.00

(L) Design, Implementation, and End-to-End Evaluation of a Measurement-Based Admission Control Algorithm for Controlled-Load Service

Cheng Jin and Sugih Jamin

University of Michigan, Ann Arbor

12.30

(S) Charging of Multimedia Flows in an Integrated Services Network

Burkhard Stiller, George Fankhauser and Bernhard Plattner

ETH Zurich

12.45

(S) A Better-Than-Best-Effort Service For Responsive UDP Flows

Mark Parris, Jan Borgersen, Kevin Jeffay, F. Donelson Smith

University of North Carolina

13.00

(S) Adapting Fair Queueing to Improve Loss, Delay, and Admission Control Performance

N.G. Duffield, T.V. Lakshman and D. Stiliadis

AT&T Labs-Research / Bell Labs, Lucent Technologies

13.15 - 14.15

Lunch

Session PM 3: Application Adaptation

14.15

(L) An Empirical Study of Client Interactions with a Continuous-Media Courseware Server

Jitendra Padhye and Jim Kurose

University of Massachusetts

14.45

(L) The Loss-Delay Based Adjustment Algorithm: A TCP-Friendly Adaptation

Dorgham Sisalem and Henning Schulzrinne

GMD-Fokus, Berlin/Columbia University, New York

15.15

(S) A Toolkit for Building Migratory Continuous Media Applications

Tatsuo Nakajima and Hiroyuki Aizu

Japan Advanced Institute of Science and Technology

15.30

(S) QoS Assurance vs. Dynamic Adaptability for Applications

Saleem N. Bhatti and Graham Knight

Department of Computer Science, University College London

15.45

(S) A Perspective on Application/Network Coupling

Thomas Gross and Peter Steenkiste

CMU / ETH Zurich

16.00 - 16.30

Afternoon tea

Session PM 4: Ad Hoc Panel (or punt trip)

Thursday evening: workshop banquet

Friday 10 July

Session AM 5: Coding/Transmission

9.00

(L) Network Adaptive Continuous-Media Applications through Self Organised Transcoding

Isidor Kouvelas, Vicky Hardman and Jon Crowcroft

Department of Computer Science, University College London

9.30

(L) MPEG-2 Video Services over Packet Networks: Joint Effect of Encoding Rate and Data Loss on User-Oriented QoS

Olivier Verscheure, Pascal Frossard and Maher Hamdi

Institute for computer Communications and Applications, Swiss Federal Institute of Technology

10.00

(L) Issues of Quality when Smoothing Rate Adaptive Video

N.G. Duffield, K. K. Ramakrishnan and Amy R. Reibman

AT&T Labs-Research

10.30

(L) Real-Time Reliable Multicast Using Proactive Forward Error Correction

Dan Rubenstein, Jim Kurose, and Don Towsley

University of Massachusetts

11.00 - 11.30

Morning Coffee

Session AM 6: Video File Systems

11.30

(L) Cost-Optimal Data Retrieval for Video Servers with Variable Bit Rate Streams

Ernst Biersack and Maher Hamdi

Institut Eurécom/Institute for Computer Communications and Applications, Swiss Federal Institute of Technology, Lausanne (EPFL), CH-1015

12.00

(L) Adaptive Quality-of-Service Session Management for Multimedia Servers

John Reumann and Kang Shin

Real-Time Computing Lab @ Univ. Michigan

12.30

(L) Efficient Schemes for Broadcasting Popular Videos

Lixin Gao, Jim Kurose and Don Towsley

Smith College / Dept. of Computer Science University of Massachusetts

13.00 - 14.00

Lunch

To Contact NOSSDAV'98 send us email at nossdav98@cl.cam.ac.uk