

Proceedings of JENC8

*Editors: H. Lubich
P. Rendek*

8th Joint European Networking Conference (JENC8)

Diversity and Integration: The New European Networking Landscape

To order copies, contact:

TERENA Secretariat
Singel 466-468
NL-1017 AW AMSTERDAM

UB/TIB Hannover 89
116 182 466

PROCEEDINGS JENC8

TABLE OF CONTENTS

SESSION I

UNIVERSITÄTSBIBLIOTHEK
HANNOVER
TECHNISCHE
INFORMATIONSBIBLIOTHEK

Session I-2: Co-operation through the Web

Chair: Manfred Bogen, GMD Sankt Augustin, Germany

- 121 Building a Web Caching System - Architectural Considerations 121
Ingrid Melve <Ingrid.Melve@uninett.no>, UNINETT, Norway, Lars Slettjord <Lars.Slettjord@cc.uit.no>, Tromsø University, Norway, Henny Bekker <H.Bekker@cc.ruu.nl>, Utrecht University, The Netherlands, Ton Verschuren <Ton.Verschuren@surfnet.nl>, SURFnet, The Netherlands
- 122 Collaborative Browsing in the World Wide Web 122
Gabriel Sidler <sidler@tik.ee.ethz.ch>, ETH Zurich, Switzerland, Andrew Scott <acs@comp.lancs.ac.uk>, University of Lancaster, United Kingdom, Heiner Wolf <wolf@informatik.uni-ulm.de>, University of Ulm, Germany
- 123 Visualising and Populating the Web: Collaborative Virtual Environments for Browsing, Searching and Inhabiting Webspace 123
Steve Benford <sdb@cs.nott.ac.uk>, Dave Snowden <dns@cs.nott.ac.uk>, Chris Brown <ccb@cs.nott.ac.uk>, Gail Reynard <gtr@cs.nott.ac.uk>, Rob Ingram <rji@cs.nott.ac.uk>, The University of Nottingham, United Kingdom

Session I-3: Delivering Broadband to the Customer

Chair: Ole Jacobsen, Interop, USA

- 132 Issues in Residential Broadband Internet Service Provision 132
Saleem Bhatti <S.Bhatti@cs.ucl.ac.uk>, Graham Knight <G.Knight@cs.ucl.ac.uk>, University College London, United Kingdom
- 133 BT CityMedia Network - Video Multicast and ATM 133
Dave Ginsburg <dginsbur@cisco.com>, Cisco Systems Europe, Chris Gibbings <Chris.Gibbings@bt-sys.bt.co.uk>, BT Laboratories, Dave Newson <newsondj@boat.bt.com>, BT Laboratories, Jeremy Barnes <Jeremy.Barnes@concert.com> Concert Communications, United Kingdom

SESSION II

Session II-1: Commerce on the Internet

Chair: Thierry Gourdon, CYBERserve, France

- 211 The Internet and EDI - EDI as the backbone of Electronic Commerce? 211
Dick Raman, <info@edi-tie.nl>, EDI-TIE B.V., The Netherlands
- 212 Using the Internet for Business - Web Oriented Routes to Market and Existing IT Infrastructures 212

Session II-2: User Support and Training - Issues and Initiatives*Chair:* Gerti Foest, DFN-Verein, Germany

- 221 On-line Training Materials Using State Information Derived from Cookies, HTTP1.0 and its Descendents 221
Tony McDonald, <Tony.McDonald@newcastle.ac.uk>, University of Newcastle, United Kingdom
- 222 Environment To Inspire Network Users (ETINU) - The development of a complete online support system 222
Christine Cahoon <christine@unite.co.uk>, George Munroe <george@unite.co.uk>, UNITE Solutions Limited, George Dunn <G.Dunn@qub.ac.uk>, Majella McCarron <M.McCarron@qub.ac.uk>, The Queen's University of Belfast, Northern Ireland
- 223 Gossamer Strands to Institutional Infrastructure - Experiences Establishing a University Web Site 223
Majella McCarron <M.McCarron@qub.ac.uk>, George Dunn <G.Dunn@qub.ac.uk>, The Queen's University of Belfast, Christine Cahoon <christine@unite.co.uk>, George Munroe <george@unite.co.uk>, UNITE Solutions Limited, Northern Ireland.

SESSION III**Session III-1: Secure Network Applications***Chair:* Rüdiger Grimm, GMD Darmstadt, Germany

- 312 Handling Confidential Internet Conferences by Email 312
Knut Bahr <bahr@gmd.de>, Elfriede Hinsch <hinsch@gmd.de>, Anne Jaegemann <jaegemann@gmd.de>, Lan Wang <>wang@gmd.de>, GMD Darmstadt, Germany
- 313 Status of Industry Work on Signed Mobile Code 313
Matthew Christian Faupel <mcf@ansa.co.uk>, APM Ltd., United Kingdom

Session III-2: Searching in the Web*Chair:* Stefan Kelm, DFN-PCA, Germany

- 321 Adding Softlinks to the Web 321
Oli Kai Paulus, Markus Andrezak, Guido Dunker, Ulrich Schweiger {okp,andrezak,dunker,uswg}@cs.tu-berlin.de, KIT Project Group - Technical University of Berlin, Germany
- 322 A Distributed Weighted Centroid-based Indexing System 322
Miguel Rio <rio@uminho.pt>, Joaquim Macedo <macedo@uminho.pt>, Vasco Freitas <vf@uminho.pt>, Universidade do Minho, Portugal
- 323 The Evolution of a National Networked Bibliographic Data Service 323
Terry Morrow <T.M.Morrow@bids.ac.uk>, University of Bath, United Kingdom

Session III-3: TEN-34: Implementing a High-Speed European Research Backbone*Chair:* Thomas Brunner, SWITCH, Switzerland

- 331 The Implementation of TEN-34 331

- 332 Experiments for Advanced Backbone Services** 332
Michael Behringer <michael.behringer@dante.org.uk>, Frank Breiter <breiter@ibdr.inf.tu-dresden.de>, Mauro Campanella <campanella@mi.infn.it>, Roberto Canada <canada@rccn.net>, Zlatica Cekro <cekro@helios.iihe.ac.be>, Phil Chimento <chimento@cs.utwente.nl>, Magnus Danielson <magda@it.kth.se>, Vegard Engen <vegard.engen@uninett.no>, Tiziana Ferrari <ferrari@infn.it>, Christoph Graf <christoph.graf@dante.org.uk>, Steinar Haug <sthaug@nethelp.no>, Ramin Najmabadi Kia <najmabadi@helios.iihe.ac.be>, Sabine Kuehn <sabine_kuehn@ibdr.inf.tu-dresden.de>, Olav Kvittem <olav.kvittem@uninett.no>, Simon Leinen <simon@switch.ch>, Olivier Martin <omartin@dxcoms.cern.ch>, Kevin Meynell <k.meynell@terena.nl>, Paulo Neves <pneves@rccn.net>, Victor Reijs <victor.reijs@surfnet.nl>, Celestino Tomas <ctomas@chico.rediris.es>, José Vilela <vilela@rccn.net>

SESSION IV

Session IV-1: Liberalization and Privatization - Delivering leading edge services in the brave new commercial Internet world

Chair: Peter Wintlev-Jensen, European Commission

- 411 STAM - The Privatized NSFNET as a two-year old, and what US higher education is doing about it** 411
Michael Staman, <staman@cic.net>, CICnet Inc., USA

Session IV-2: Education and the Net - A New Environment

Chair: Dave Hartland, University of Newcastle Upon Tyne, United Kingdom

- 421 Use of Instructional Material in Universal Teleteaching Environments** 421
Robert Grebner <grebner@wi2.wiso.uni-erlangen.de>, University of Erlangen-Nuremberg, Germany
- 422 Evaluation of a Network Based Learning Environment for Dermatology** 422
Andreas Bittorf <bittorf@derma.med.uni-erlangen.de>, Thomas L. Diepgen <diepgen@derma.med.uni-erlangen.de>, University of Erlangen, Germany
- 423 The Internet - Networking and the Humanities** 423
Barton D. Thurber <thurber@acusd.edu>, Jack Pope <pope@acusd.edu>, University of San Diego, USA

Session IV-3: Digital Signature Applications

Chair: Wolfgang Schneider, GMD Darmstadt, Germany

- 431 A BAKO Extension Proposal** 431
Petra Glöckner <gloeckner@gmd.de>, Stephan Kolletzki <kolletzki@gmd.de>, Michael Wichert <wichert@gmd.de>, GMD Darmstadt, Germany
- 432 Providing Security to the Building Licenses Delivering Process in the City of Torino** 432
Antonio Lioy <lioy@polito.it>, Fabio Maino <maino@polito.it>, Politecnico di Torino, Italy
- 433 The Digital Signature Initiative** 433
Peter Lipp <plipp@iaik.tu-graz.ac.at>, University of Technology Graz, Austria

SESSION V

Session V-2: Network Developments in the Former Soviet Union and Eastern Europe

Chair: Dave Probert, Digital Equipment Corporation, United Kingdom

- 521 NATO's Contribution to Computer Networking in Central and Eastern Europe and in the Former Soviet Union 521
Jean-Paul Nadreau <nadreau@qbc.clic.net>, NATO, Canada
- 522 Current Tendencies in Russian Academic and Research Network Development at the National and Regional Levels 522
A.S. Mendkovich <asm@free.net>, Russian Academy of Sciences, A.I. Rusakov <alex@free.net>, J.T. McCormick <jmccor@yars.free.net>, M.N. Zakharova, P.G. Demidov Yaroslavl State University, Russian Federation
- 523 Siberia: Putting the Virgin Lands to the Internet Plough 523
S.D. Belov <belov@inp.nsk.su>, S.V. Bredikhin <bred@comcen.nsk.su>, S.P. Kovalyov <kovalyov@inp.nsk.su>, S.A. Kulagin <rtgroup@iae.nsk.su>, S.L. Musher <musher@nsc.ru>, V.S. Nikultzev <nik@scnet.nsk.su>, N.G. Scherbakova <scherbakova@iae.nsk.su>, I.V. Shabalnikov <igor@iis.nsk.su>, Yu.I. Shokin <shokin@scnet.nsk.su>, Siberian Branch of the Russian Academy of Sciences, Russian Federation
- 524 Networks Development in the Ural Region: the Ekaterinburg integrated project 524
Konstantin E. Lovtsky <Konstantin.Lovtsky@usu.ru>, Sergei V. Sleptsov <Sergei.Sleptsov@usu.ru>, Vladimir E. Tretyakov <Vladimir.Tretyakov@usu.ru>, Ural State University, Russia
- 525 Minsk Internet Project: Results and Perspectives 525
Nikolay Listopad <listopad@nil.minedu.minsk.by>, Computer and Analytical Center of Ministry of Education, Sergei Kritsky <kritsky@cacedu.minsk.by>, Belarussian State University of Informatics and Radioelectronics, Igor Tavgen <itavgen@bsf.minsk.by>, Belarussian Soros Foundation, Sergey Ivanov <listopad@cacedu.minsk.by>, SOLIDEX PI Ltd., Minsk, Belarus, Slava Shkarupin <slava@sunone.isf.kiev.ua>, Open Society Institute, Kiev Regional Office, Kiev, Ukraine, Ilya Mafter <ilya@soros.org>, Open Society Institute, New York, USA
- 526 Synergy in Cyberspace and a New Networking Landscape: Telenetics Approach 526
Vladimir Zaborovski <vlad@neva.ru>, Yuri Podgurski <podg@neva.ru>, RTC Institute, Yuri Shemanin <yuri@stu.neva.ru>, Vasili Semyonovski <swb@stu.neva.ru>, Andrey Vasiliev <wa@stu.neva.ru>, Technical University of Saint-Petersburg, Russia
- 527 RUSLANet - Internet-Aware Library System in Russia (St Petersburg) 527
Alexander Plemnek, <plm@unilib.unilib.neva.ru>, Natalia Sokolova, <natalia@unilib.unilib.neva.ru>, Vladimir Baranov, <barvl@unilib.unilib.neva.ru>, St Petersburg State Technical University, Russia

SESSION VII

Session VII-1: Secure Commercial Applications

Chair: Harald T. Alvestrand, UNINETT A/S, Norway

- 711 Applying Military Grade Security to the Internet 711

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.