26th IEEE International Conference on Distributed Computing Systems Workshops ICDCS 2006

4-7 July 2006
Lisboa, Portugal

ADSN

Session 1: Keynote Address

Thou Shalt Not Trust Non-Trustworthy Systems .....
Paulo Esteves Veríssimo, University of Lisbon

Session 2: Robust and Efficient Networking

GOLI: Greedy On-Demand Routing Scheme Using Location Information for Mobile Ad Hoc Networks 1
Hiroshi Nakagawa, Kenji Ishida, Tomoyuki Ohta and Yoshiaki Kakuda

High Reliability in Autonomous Decentralized IC Card Ticket System.....2
Akio Shiibashi, Fumiaki Mashiba, and Kinji Mori

Fault Diameter of Generalized Cartesian Products.....3
Iztok Banič and Janez Žerovnik

Session 3: Verification

Concurrency Tradeoffs in Dynamic Adaptation.....4
Karun N. Biyani and Sandeep S. Kulkarni

Fault-Tolerance Verification of the Fluids and Combustion Facility of the International Space Station 5
Raquel S. Whittlesey-Harris and Mikhail Nesterenko

Session 4: Signals and Signaling Assurance

An Evaluation of the Effectiveness of the Measurement-Based Anomaly Detection Techniques.....6
Seong Soo Kim and A. L. Narasimha Reddy

Assurance Technologies for Signal Control System by Optical LAN 7
Hiroyuki Sugahara, Takashi Kunifuji, Tetsunori Hattori, Yoshiyuki Hirano, Yamato Fukuta, and Masayuki Matsumoto

Implementation and Performance Study of a New NAT/Firewall Signaling Protocol.....8
Niklas Steinleitner, Henning Peters, Xiaoming Fu, and Hannes Tschofenig

IWDDS/ (DABI)

Session 1: Keynote Address

From Static Distributed Systems to Dynamic Systems: An approach for a First Step
M. Raynal

Session I. B.: Clustering And Coordination in Dynamic Ad Hoc Networks

CoCoA: Coordinated Cooperative Localization for Mobile
Multi-Robot Ad Hoc Networks 9
Dimitrios Koutsonikolas, Saumitra M. Das, Y. Charlie Hu,
Yung-Hsiang Lu, and C.S. George Lee

A k-hop Clustering Protocol for Dense Mobile Ad-Hoc Networks 10
Giacomo Angione, Paolo Bellavista, Antonio Corradi, and Eugenio Magistretti

Session II: Overlay Networks

The Bootstrapping Service.....11
Márk Jelasity, Alberto Montresor, and Ozalp Babaoglu

Network-Aware Overlays with Network Coordinates.....12
Peter Pietzuch, Jonathan Ledlie, Michael Mitzenmacher,
and Margo Seltzer

Evaluation of Unstructured Overlay Maintenance Protocols under Churn 13
R. Baldoni, S. Bonomi, A. Rippa, L. Querzoni, S. Tucci
Piergiovanni, and A. Virgillito

Session III.A: Keynote Address

Publish/Subscribe on the top pf Overlay Networks: When Subscription
Dynamics Meet Churn
R. Baldoni

Session III.B.: Cooperative Applications in Dynamic Systems

Decentralized Electronic Mail 14
Sivan Bercovici, Yaniv Frishman, Idit Keidar, and Ayellet Tal

Saving Energy and reducing Latecny in MANET File Access 15
G. Dodaro and V. Giannuzzi

DABI (Workshop on Distributed Applications for B2B Integration)

Session IV: Distributed Applications for B2B Integration

Semantic Data Extraction for B2B Integration....16
Bruno Silva and Jorge Cardoso

Automatic Web Service Composition Using ConGolog....17
Minh Phan and Fumio Hattori

Benchmarking a Semantic Web Service Architecture for Fault-Tolerant B2B Integration....18
Jorge Cardoso

DEBS 2006

Session 1: General Publish/Subscribe Considerations

Revisiting Content-Based Publish/Subscribe 19
Costin Raiciu, David S. Rosenblum, and Mark Handley

On Quality-of-Service and Publish-Subscribe....20
Stefan Behnel, Ludger Fiege, and Gero Mühl

Session 2: Applications I

Preventing Spam in Publish/Subscribe 21
Sasu Tarkoma

An Event Service Supporting Autonomic Management of Ubiquitous Systems for e-Health....22
Stephen Strowes, Nagwa Badr, Naranker Dulay, Steven Heeps, Emil Lupu, Morris Sloman, and Joe Sventek

Session 3: Applications II

Automatic Subscriptions in Publish-Subscribe Systems 23
Lars Brenna, Cathal Gurrin, Dag Johansen, and Dmitrii Zagorodnov

Semantic and Rule Based Event-Driven Services-Oriented Agricultural Recommendation System....24
Zakir Laliwala, Vikram Sorathia, and Sanjay Chaudhary

Session 4: Performance I

Dimension-Based Subscription Pruning for Publish/Subscribe Systems 25
Sven Bittner and Annika Hinze

Throughput Performance of Java Messaging Services Using WebsphereMQ....26
Robert Henjes, Michael Menth, and Christian Zepfel

Session 4: Performance II

Finding Optimal Join Tree for Multi-Join Stream Queries in a Production System 27
Joseph S. Gomes and Heyong-Ah Choi

Reducing Latency in Rendezvous-Based Publish-Subscribe Systems for Wireless *Ad Hoc* Networks....28
Nuno Carvalho, Filipe Araujo, and Luís Rodrigues

Session 5: Systems Reconfiguration

Reconfiguring Publish/Subscribe Overlay Topologies.....29
Helge Parzyjegla, Gero Mühl, and Michael A. Jaeger

Preservation of Correctness During System Reconfiguration in Data Distribution Service for Real-Time Systems (DDS).....30
Bogumil Zieba and Marten van Sinderen

Session 6: Accuracy and Quality

On The Accuracy of Event Distribution Lists for Publish/Subscribe in Dynamic Distributed Systems.....31
R. Baldoni, G. Cortese, F. Morabito, L. Querzoni, S. Tucci Piergiovanni, and A. Virgillito

Handling Overload in Publish/Subscribe Systems 32
Zbigniew Jerzak and Christof Fetzer

Coping with Variable Latency and Disorder in Distributed Event Streams.....33
Roger S. Barga and Gueorgui Chkodrov

Session 7: Programming and Testing

Specification-Based Unit Testing of Publish/Subscribe Applications.....34
Anton Michlmayr, Pascal Fenkam, and Schahram Dustdar

Combining Programming Paradigms in Asynchronous Systems 35
Ricardo Costa, Pedro Martelletto, Bruno Silvestre, and Noemi Rodriguez

IBC 2006

Multi-Radio Channel Allocation in Competitive Wireless Networks 36
Mark Felegyhazi, Mario Cagalj, and Jean-Pierre Hubaux

The Power of the Defender 37
Marina Gelastou, Mario Mavronicolas, Vicky Papadopoulou, Anna Philippou, and Paul Spirakis

Interdomain Routing as Social Choice 38
Ronny R. Dakdouk, Semih Salihoglu, Hao Wang, Haiyong Xie, and Yang Richard Yang

Flow-Based Resource Allocation in a Multiple-Access Wireless Market Using an Auction 39
Matthias Roggendorf and Fernando Beltrán

Enforcing Truthful-Rating Equilibria in Electronic Marketplaces 40
Thanasis G. Papaioannou and George D. Stamoulis

WS-Auction: Mechanism Design for a Web Services Market 41
Tiberiu Stef-Praun and Vernon Rego

Session 1: Distributed Multimedia Networking

Distributed Coordination for Scalable Multimedia Streaming Model....42
Satoshi Itaya, Naohiro Hayashibara, Tomoya Enokido, and Makoto Takizawa

Designing a Video-on-Demand System for a Brazilian High Speed Network....43
L. Souza, A. Ripoll, X.Y. Yang, P. Hernández, R. Suppi, E. Luque, and F. Cores

A Propagation of Virtual Space Information Using a Peer-to-Peer Architecture for Massively Multiplayer Online Games....44
Shin Ito, Hajime Sogawa, Hiroki Saito, and Yoshito Tobe

Session 2: Multimedia Tools and Systems.

Concurrency Control in Multi-Role Association....45
Tomoya Enokido and Makoto Takizawa

Performance Evaluation of the φ Accrual Failure Detector....46
Naohiro Hayashibara and Makoto Takizawa

Motion Analysis for the Standing Long Jump....47
Hui-Huang Hsu, Sheng-Wen Hsieh, Wu-Chou Chen, Chun-Jung Chen, and Che-Yu Yang

COCA: A Contract-Based Infrastructure for Composing Adaptive Multimedia Systems....48
Zhinan Zhou and Philip K. McKinley

Session 3: Distributed Multimedia Applications.

An Application of Question Answering System for Collaborative Learning....49
Chun-Chia Wang, Jason C. Hung, Che-Yu Yang, and Timothy K. Shih

Evaluation of Automatic Generation of an Instruction Set Simulator for Educational Use....50
Hideaki Yanagisawa, Minoru Uehara, and Hideki Mori

Robust Wide Disaster Information and Sharing System over Japan Gigabit Network....51
Hiroyuki Echigo, Hiroaki Yuze, Tsuyoshi Hoshikawa, Kazuo Takahata, and Yoshitaka Shibata

Study of Server Workload in Large Online Newspaper....52
Zeljko Vrba, Thomas Plagemann, Vera Goebel, and Xabiel G. Pañeda

Session 4: Advanced Internet Technologies for Multimedia Systems.

SIP Terminal Mobility for both IPv4 and IPv6....53
Che-Hua Yeh, Quincy Wu, and Yi-Bing Lin

Evaluation of a Network Extraction Topology Algorithm for Reducing Search Space of a GA-Based Routing Approach....54
Makoto Ikeda, Leonard Barolli, Giuseppe De Marco, Arian Durresi, Akio Koyama, and Mimoza Durresi

Using an Interpolation Algorithm for VCR like Functions in Multimedia Communications....55
Hsien-Ming Tsai, Tzu-Chiang Chiang, and Yueh-Min Huang

Enhanced PCF Protocols for Real-Time Multimedia Services over 802.11 Wireless Networks....56
Ming-Chuan Hsu and Yaw-Chung Chen

IWSAWC 2006

Session 1: Prototyping & Context Recognition

Restriction, Modification and Extension of Consumer Devices for Prototyping Ubiquitous Computing Environments 57
Matthias Kranz and Albrecht Schmidt

Dealing with Class Skew in Context Recognition....58
Mathias Stäger, Paul Lukowicz, and Gerhard Tröster

Session 2: Architectures

AwareOffice: Integrating Modular Context-Aware Applications....59
Tobias Zimmer and Michael Beigl

Architecture for Providing Services in the Ubiquitous Computing Environment....60
Goro Kunito, Kenji Sakamoto, Naoharu Yamada and Tatsuo Takakashi, and Satoshi Tanaka

Sharing Sensor Networks....61
Manabu Isomura, Till Riedel, Christian Decker, Michael Beigl, and Hiroki Horiuchi,

Session 3: Novel User Interfaces

The Key Knob....62
Alois Ferscha, Clemens Holzmann, and Stefan Resmerita

Developing Gestural Input....63
Matthias Kranz, Stefan Freund, Paul Holleis, Albrecht Schmidt, and Holger Arndt

Thracker - Using Capacitive Sensing for Gesture Recognition....64
Raphael Wimmer, Paul Holleis, Matthias Kranz, and Albrecht Schmidt

Session 4: Wearable Computing

Flexible Network Infrastructure for Wearable Computing Using Conductive Fabric and Its Evaluation....65
Junichi Akita, Toru Shinmura, Tomomichi Murakami, Mariko Yao, and Masashi Toda

Fair Dice: A Tilt and Motion-Aware Cube with a Conscience 66
Kristof Van Laerhoven and Hans-Werner Gellersen

Wearable Computer for Ubiquitous Informal Communication....67
Shun'ichi Tano, Tatsuhiro Takayama, Mitsuru Iwata, and Tomonori Hashiyama

objSampler: A Tool for Recording and Recalling Encounters with Real World Objects .....
Jun'ichi Yura, Hideaki Ogawa, Taizo Zushi, Jin Kazawa and Hideyuki Tokuda,

Applying Case-Based Reasoning in Networked Appliances: Enabling Ubiquitous Environment
Halikul Bin Lenando, Mohamad Nazom Jambli and Johari Abdullah

Internet Emergency Call System Enhancing Reliability .....
Kenji Kimotsuki, Sakae Sugi, Takumi Miyoshi, Teijirou Kajiwara, Takehiro Mabuchi, and Masanori Murata

Desiring Technologies: Case Studies in the Coming of Being of Wearable Technologies.....
Despina Papadopoulos

Mo@i: A Public Service Platform Enabling Multiple-zones Serviceability .....
Masayuki Iwai, Akinori Komaki and Hideyuki Tokuda

SIUMI'06

Session 1: Middleware for Context- aware Provisioning
Chair: F. De Paoli

Contory: A Smart Phone Middleware Supporting Multiple Context Provisioning Strategies 68
Oriana Riva and Cristiano di Flora

SIP-Based Proactive Handoff Management for Session Continuity in the Wireless Internet 69
Paolo Bellavista, Antonio Corradi, and Luca Foschini

Service Plans for Context- and QoS-aware Dynamic Middleware 70
Sten A. Lundesgaard, Ketil Lund, and Frank Eliassen

Session 2: Application Provisioning and Novel Application Areas
Chair: L. Foschini

An Optimized Workload for Failure Data Analysis of Mobile P2P over Bluetooth Ad-Hoc Networks 71
G. Carrozza, M. Cinque, F. Cornevilli, and S. Russo

Quality Composition in Web-Service Design.....72
Marco Comerio, Flavio De Paoli, and Simone Grega

P2P/DAKS Accepted Paper List

Session A: Trust and Learning
Chair: S. M. Deen

Fuzzy Trust for Peer-to-Peer Systems 73
Nathan Griffiths, Kuo-Ming Chao, and Muhammad Younas

Trustworthiness of Peers Based on Access Control in Peer-to-Peer Overlay Networks 74
Kenichi Watanabe, Yoshio Nakajima, Naohiro Hayashibara, Tomoya Enokido, Makoto Takizawa, and S. Misbah Deen

Improve Searching by Reinforcement Learning in Unstructured P2Ps.....75
Xiuqi Li, Jie Wu, and Shi Zhong

Session B: Heterogeneous Knowledge Sharing
Chair: M. Takizawa

Towards a Scalable Heterogeneous P2P Data and Knowledge Sharing Facility 76
S. M. Deen, K. Ponnamperuma, and M. Takizawa

Ontology-Driven Knowledge Sharing: From Centralized to Peer-to-Peer Systems 77
P. O'Brien, A. Mwakatobe, and S. S. R. Abidi

A Scalable P2P Database System with Semi-Automated Schema Matching.....78
Colin Rouse and Sonia Berman

WWASN2006

Session I: Topology and Coverage

Energy Efficient Fractional Coverage Schemes for Low Cost Wireless Sensor Networks 79
Mao Ye, Edward Chan, Guihai Chen, and Jie Wu

Characterization of a Connectivity Measure for Sparse Wireless Multi-hop Networks 80
Srinath Perur and Sridhar Iyer

A Practical Method to Form Energy Efficient Connected *K*-Coverage in Wireless Sensor Networks 81
Zhen Jiang, Robert Kline, Jie Wu, and Fei Dai

Session II: MAC, Routing, and Cross-Layer Issues

A Directional Gossip Protocol for Path Discovery in MANETs 82
Roberto Beraldi

A Robust and Energy Efficient Routing Scheme for Wireless Sensor Networks 83
Haiguang Wang, Peng-Yong Kong, and Winston Seah Khoon Guan

Automatic Learning-Based MANET Cross-Layer Parameter Configuration 84
Karen Zita Haigh, Srivatsan Varadarajan, and Choon Yik Tang

Balance-Based Energy-Efficient Communication Protocols for Wireless Sensor Networks 85
Yu Wang, Hongyi Wu, Ravi Nelavelli, and Nian-Feng Tzeng

Session III: Mobility

Path Planning of Mobile Landmarks for Localization in Wireless Sensor Networks 86
Dimitrios Koutsonikolas, Saumitra M. Das, and Y. Charlie Hu

Replacing Failed Sensor Nodes by Mobile Robots 87
Yongguo Mei, Changjiu Xian, Saumitra Das, Y. Charlie Hu, and Yung-Hsiang Lu

On the Use of Nodes with Controllable Mobility for Conserving Power in MANETs 88
Eashwar R. Chittimalla, Aravindhan Venkateswaran, Venkatesh Sarangan, and Raj Acharya

Session IV: Applications and Security

An Adaptive Hybrid Strategy of Integrated Service Discovery for Wireless Mobile Ad Hoc Networks 89
Donggeon Noh and Heonshik Shin

Wireless Sensor Networks for Clinical Information Systems: A Security Perspective 90
Jelena Mišić and Vojislav B. Mišić

A Cooperative Multitasking Model for Networked Sensors 91
Silvana Rossetto and Noemi Rodriguez