

**The 5 th IEEE International Symposium on Network
Computing and Application (IEEE NCA06), July 24 - 26, 2006
Marriott Hotel, Kendal Square, Cambridge, MA USA
Sponsored by : IEEE Computer Society,
Technical Committee on Distributed Processing**

URL: www.ieee-nca.org

Technical Program

July 24, 2006 - Monday

Opening Remarks 8.15 am

8.30 am - 9.45 am

Section 1 - Networking Protocols

Long papers:

A Tree-Turn Model for Irregular Networks

Authors: Jiazheng Zhou and Yeh-Ching Chung

Experience Using Active and Passive Mapping for Network
Situational Awareness

Authors: Seth Webster, Richard Lippmann, Marc Zissman

Multi-path Multi-Channel Routing Protocol

Authors: Bo Yan and Hamid Gharavi

9.45 am - 10.35 am

Section 2 - Networking Protocols

Long Papers

JetStream: Achieving Predictable Gossip Dissemination by
Leveraging Social Networks Principles

Authors: Jay A. Patel, Indranil Gupta, and Noshir Contractor

Self* Architecture for Trajectory Tracking in Wireless
Sensor Networks

Authors: F.Claerhout, A.K.Datta, M.Gradinariu, M.Hurfin

10.35 am -11.00 am

Coffee Break

11.00am -12.00 noon

Keynote speaker

Application-Aware Reliability and Security:

The Trusted ILLIAC Approach

Ravishankar K. Iyer

Coordinated Science Laboratory and the Information Trust Institute

University of Illinois at Urbana-Champaign, IL USA

12.00 noon - 1.30pm

Lunch

1.30pm - 2.45pm

Section 3 - Servers, Network Processors and Computing

Long Papers

Parallelization of Geant4 Using TOP-C and Marshalgen

Authors: Gene Cooperman, Viet Ha Nguyen and Igor Malioutov

Software Aging and Rejuvenation in a SOAP-based Server

Authors: Luis Silva, Henrique Madeira, Joo Gabriel Silva

Utilizing Network Processors in Distributed Enterprise

Environments

Authors: Paul Royal, Mitch Halpin, Ada Gavrilovska, Karsten Schwan

2.45pm - 4.00pm

Section 4 - Peer-to-Peer and Publish Subscribe Systems

Long papers

Faster Event Forwarding in a Content-Based Publish-Subscribe System through Lookup Reuse

Authors: Zhenhui Shen, Srikanta Tirthapura

Improved Result Ranking in P2P File-Sharing Systems by Probing for Metadata

Authors: Wai Gen Yee, Linh Thai Nguyen, Ophir Frieder

Identifying Known and Unknown P2P Traffic

Authors: Fivos Constantinou, Panayiotis Mavrommatis

4.00pm - 4.30pm

Coffee Break

4.30pm - 5.30pm

Keynote Speaker

Experience with some Principles for Building an Internet-Scale Reliable System

Mike Afegan

CTO Akamai Technologies, Inc.

8 Cambridge Center, Cambridge, MA, 02142, USA

5.45pm -6.30pm

Akamai Techniques Inc. Visit

After the keynote talk of M. Afergan, all NCA06 attendees are invited to visit the facilities of Akamai Technologies Inc., (walking distance from Marriott Hotel, Cambridge). Akamai Technologies Inc. is the world leader of reliable content delivery via Internet.

The visit (following by reception) is hosted by Prof. T. Leighton, MIT Professor, Chief Scientists of Akamai Technologies Inc. Dr. Leighton is a Fellow of the American Academy of Arts and Sciences, and the National Academy of Engineering.

July 25, 2006 - Tuesday

8.30am - 8.55am

Section 5 - Middleware

Long Papers

Providing e-Transaction Guarantees in Asynchronous Systems with Inaccurate Failure Detection

Authors: Paolo Romano and Francesco Quaglia

8.55am - 10.35am

Section 6 - Distributed Storage

Long papers

Congestion Control for Distributed Hash Tables

Authors: Fabius Klemm, Jean-Yves Le Boudec, Karl Aberer

Comparison of Redundancy Schemes for Distributed Storage Systems

Authors: Peter Sobe and Kathrin Pater

A Low-Overhead Primary-Backup Protocol for Main-Memory Database Replication

Authors: Lsaro Camargos, Fernando Pedone, Rodrigo Schmidt

Optimizing Cauchy Reed-Solomon Codes for Fault-Tolerant Network Storage Applications

Authors: James S. Plank and Lihao Xu

10.35am -11.00am

Coffee Break

11.00am - 12.00 noon

Keynote Speaker

Challenges in Managing Complexity: Autonomic Computing

Alan Ganek,

IBM, Vice President of Autonomic Computing&CTO, Tivoli Software, USA

12.00 noon - 1.30pm

Lunch

1.30pm - 2.45pm

Section 7 - Security and Trust

Long papers

A Proxy Network Topology and Reconfiguration Algorithm for Resistance to DoS Attacks

Authors: Stephen Frechette and D. R. Avresky

SecLEACH – A Random Key Distribution Solution for Securing Clustered Sensor Networks

Authors: Leonardo B. Oliveira, Hao Chi Wong, Marshall Bern, Ricardo Dahab, A. A. F. Loureiro

From DC-nets to pMIXes: Multiple Variants for Anonymous Communications.

Authors: Deswarte Yves and Aguilar Melchor Carlos

2.45pm -3.35pm

Section 8 - Distributed Storage

Long papers

A Flexible Replication Mechanism with Extended Database Connection Layers

Authors: Nobutatsu Nakamura, Ken'ichiro Fujiyama, Eiji Kawai and Hideki Sunahara

Network-Aware Adaptation Techniques for Mobile File Systems

Authors: Benjamin Atkin and Kenneth P. Birman

3.35pm - 4.00pm

Coffee Break

4.00pm - 5.00pm

Keynote speaker

The +CAL Algorithm Language

Leslie Lamport

Microsoft Research, 1065 La Avenida Mountain View, CA 94043, USA

Banquette 7.30 pm

July 26, 2006 - Wednesday

8.30am -10.10am

Section 9 - Real time Scheduling

Long papers

Video-on-demand equipment allocation

Authors: Frederic Thouin, Mark Coates, Dominic Goodwill

Slotted Optical Burst Switching (SOBS) Networks

Authors: Zhenghao Zhang, Lin Liu, and Yuanyuan Yang

Implementing the advanced switching minimum bandwidth egress link scheduler

Author: Francisco Jose Alfaró Cortes

ContagAlert: Using Contagion Theory For Adaptive, Distributed Alert Propagation

Authors: Michael Treaster, William Conner, Indranil Gupta, Klara

Nahrstedt

10.10am -10.40am

Coffee Break

10.40am -11.20am

Section 10 - Overlay Networks

Short Papers

Analysis Models for Blind Search in Unstructured Overlays

Authors: Bin Wu and Ajay Kshemkalyani

A Novel Decision Strategy of Vertical Handoff in Overlay Wireless Networks

Authors: Wei Shen, Qing-An Zeng

11.20am - 12.20am

Section 11 - Web Caching and Switching

Short papers

A distributed architecture for gracefully degradable Web-based services

Authors: Mauro Andreolini, Sara Casolari, Michele Colajanni

Finding Shared Fragments in Large Collections of Web Pages

for Fragment-based Web Caching

Authors: Junchang Ma, Zhimin Gu

IntranetWeb: a Peer-to-Peer based scalable web caching system

Authors: Huifang Cheng, Zhimin Gu, Qing Yu

12.20pm - 2.00pm

Lunch

2.00pm -3.00pm

Section 12 - Performance Modeling and Quality of Service (QoS) Issues

Short papers

Full QoS Support with 2 VCs for Single-chip Switches

Authors: A. Martnez, F. J. Alfaro, J. L. Sanchez and J. Duato

A Flexible Cross Connect LCAS for Bandwidth Maximization in 2.5G EoS

Authors: Ching-Te Chiu, Hou-Cheng Tzeng

Decentralized Load Balancing on Unstructured Peer-2-Peer Computing Grids

Authors: Raymond Klefstad

3.00pm - 3.30pm

Coffee Break

3.30pm - 4.10pm

Section 13 - Sensor Networks

Short papers

Lossy Node Identification in Wireless Sensor Network

Authors: Li Yong-jun, Cai Wan-dong, Wang Wei and Tian Guang-li

A Novel Probability Evaluation Method for Selective Forwarding Routing in Wireless Sensor Network

Authors: Jing Wu, Pu-liu Yan, Jian-guo Zhou and Hao Jiang

4.10pm - 4.30pm

Section 14 - Practical Experiences and Prototypes

Short papers

A System for Secure IP Telephone Conferences

Authors: Axel Tressel and Joerg Keller

4.30pm - 4.45pm

Closing Remarks

July 24, 2006 - Monday

8.30am - 9.30am

Adaptive Grid Computing - Workshop

A Multipolicy Authorization Framework for Grid Security

Authors: Bo Lang, Ian Foster, Frank Siebenlist, Rachana Ananthkrishnan and Tim Freeman

An Adaptive Quality of Service Based Scheduling Algorithm for Wide Area Large Scale Problems

Authors: Wilson Lozano and Wilson Rivera

Design and Implementation of a Plain Grid Monitoring and Information Service

Authors: Weibin Pei, Zhongliang Chen, Chunhao Feng, Zhi Wang

July 24, 2006 - Monday

9.30am - 10.10am

Trustworthy Network Computing - Workshop

Trust Assessment from Observed Behavior: Toward an Essential Service for Trusted Network Computing

Authors: Partha Pal, Franklin Webber, Michael Atighetchi and Nate Combs

An Improved Test Derivation Technique

Authors: Harry Gros-Desormeaux, Hacene Fouchal and Philippe Hunel

July 24, 2006 - Monday

1.30pm - 2.30pm

Fast Abstracts - A (preliminary)

Implementation of an Emergency Guiding System by Wireless Sensor Networks

Authors: Meng-Shiuan Pan

Enabling Distributed Radar Data Storage

Authors: Wilson Rivera

An Application of Network Processor for On-the-fly Packet Payload Compression

Authors: Ashish Shukla

Pairing-Based Cryptography for Sensor Networks

Authors: Leonardo Oliveira

2.30pm - 3.30pm

Fast Abstracts - B (preliminary)

Bayesian Networks for Predicting Attacks Intrusions

Authors: Salem Benferhat

Design and optimization of LDPC-CODED MIMO OFDM system for different number of antennas

Authors: Anuradha Kondelwar

Optimizing Multi-Join Stream Queries for Sensor Networks

Authors: Joseph Gomes

Cooperative Contents Distribution in Mobile Dynamic Contents Delivery Overlays

Authors: Z. Su