# SAINT
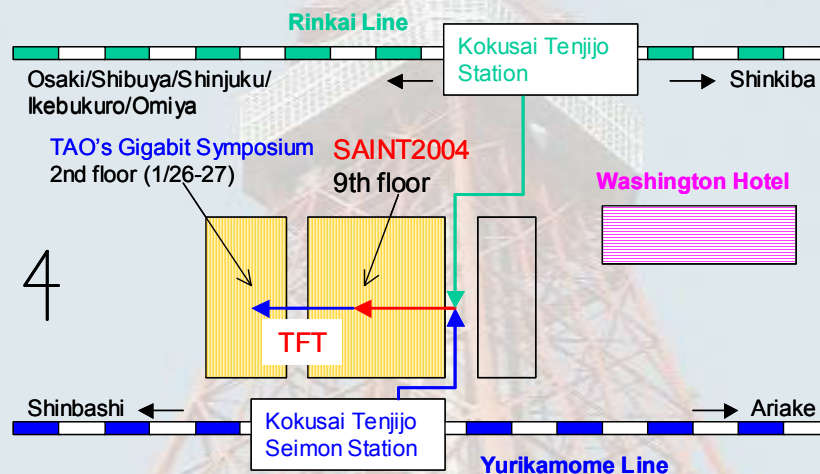
# SAINT2004

## The 2004 Symposium on Applications & the Internet

Tokyo, Japan
January 26 - 30, 2004

FINAL PROGRAM

**Rinkai Line**

Kokusai Tenjijo Station

Osaki/Shibuya/Shinjuku/ Ikebukuro/Omiya ← → Shinkiba

TAO's Gigabit Symposium
2nd floor (1/26-27)

SAINT2004
9th floor

**Washington Hotel**

4

TFT

Shinbashi ← Kokusai Tenjijo Seimon Station → Ariake

**Yurikamome Line**

Co-sponsored by the IEEE Computer Society (IEEE-CS) and the Information Processing Society of Japan (IPSJ).

In cooperation with Japan's
Telecommunication Advancement Organization (TAO), and Communications Society (CS) and Information and Systems Society (ISS) of The Institute of Electronics, Information and Communication Engineers (IEICE).

IEEE COMPUTER SOCIETY

Information Processing Society of Japan

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# SYMPOSIUM - Keynotes and Paper Sessions
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## Wednesday, 28 January 2004

**Opening**
ROOM 904    09:30-09:45

**Keynote 1**
ROOM 904    09:45-11:00
Speaker: To be appeared on the web

**Paper 1      Mobile Communication and Application**
ROOM 904    11:30-13:00
Chair: Shigeru Miyake, Hitachi Ltd., Japan
    AOE: A Mobile Operating Environment for Web-Based Applications
        N. Islam, D. Zhou, S. Shoaib, A. Ismael, and S. Kizhakkiniyil
    Performance Measurement of Mobile Ad Hoc Network for Application
    to Internet-ITS (Intelligent Transportation System)
        T. Osafune, K. Monden, S. Fukuzawa, and S. Matsui
    Twin Agents: Network-Assisted Disconnected Operation and Distributed
    Processing for Mobile Communication
        D. Ochi and K. Yamazaki

**Paper 2      Collaborative System**
ROOM 904    14:00-15:30
Chair: Sumi Helal, University of Florida, USA
    A Novel Hierarchical Community Architecture with End-to-End Delay Awareness
    for Communication Delay Enhancement
        K. Ragab, N. Kaji, K. Anwar, Y. Horikoshi, H. Kuriyama, and K. Mori
    A High Presence Shared Space Communication System Using 2D Background and 3D
    Avatar
        K. Yoshikawa, T. Machida, K. Kiyokawa, and H. Takemura
    e-MulCS: Multi-Party Conference System with Virtual Space and the Intuitive
    Input Interface
        K. Honda, K. Fukui, H. Shigeno, and K. Okada

**Paper 3      Web Services**
ROOM 904    16:00-17:30
Chair: Erich Neuhold, Fraunhofer-IPSI, Germany
    Interacting the Edutella/JXTA Peer-to-Peer Network with Web Services
        C. Qu and W. Nejdl
    Interactively Adding Web Service Interfaces to Existing Web Applications
        R. Baumgartner, G. Gottlob, M. Herzog, and W. Slany
    Thread-Aware Garbage Collection for Server Applications
        W. J. Kim, K. Kim, J. Han, K. Park, and D. Park

**Paper 4      Internet Operation and Performance**
ROOM 905    11:30-13:00
Chair: Jonghun Park, Korea Advanced Institute of Science & Technology, Korea
    A Distributed Real-Time Tool for IP-Flow Measurement
        Y. Kitatsuji and K. Yamazaki
    On the Characteristics of Internet Traffic Variability: Spikes and Elephants
        T. Mori, R. Kawahara, S. Naito, and S. Goto
    HTTP Performance Analysis over Multi-Hops Satellite Communication System
        H. Obata, K. Ishida, J. Funasaka, S. Takeuchi, K. Hirose, and K. Yamazaki

**Paper 5     Broadband Services**
ROOM 905     14:00-15:30
Chair: Ying Cai, Iowa State University, USA
    JSP Splitting for Improving Execution Performance
        T. Nakaike, G. Kondoh, H. Nakamura, F. Kitayama, and S. Hirose
    A Case for a Generalized Periodic Broadcast Server: Design, Analysis, and
    Implementation
        M. Tran, W. Putthividhya, W. Tavanapong, and J. Wong
    Implementation and Evaluation of the Robust High-Quality Video Transfer System
    on the Broadband Internet
        T. Kondo, K. Nishimura, and R. Aibara

## Thursday, 29 January 2004

**Keynote 2**
ROOM 904     09:45-11:00
Speaker: To be appeared on the web

**Paper 6     Internet Applications I**
ROOM 904     11:30-13:00
Chair: Wallapak Tavanapong, Iowa State University, USA
    A Distributed File System for Java Applet Based Distance Learning
        M. Uehara
    An Adaptive Programming Framework for Web Applications
        P.-H. Chang, W. Kim, and G. Agha
    XML Data Integration with OWL: Experiences and Challenges
        P. Lehti and P. Fankhauser

**Paper 7     Internet Applications II**
ROOM 904     14:00-15:30
Chair: Wojciech Cellary, Poznan U., Poland
    Leveraging Broadband Access for True On-Demand Delivery of Internet Videos
        Y. Cai, Z. Chen, and J. Wong
    Change Discovery of Hierarchically Structured, Order-Sensitive Data in
    HTML/XML Documents
        S. Lim and Y.-K. Ng
    Handling Catastrophic Failures in Scalable Internet Applications
        M. Haungs, R. Pandey, and E. Barr

**Paper 8     Internet Security**
ROOM 904     16:00-17:30
Chair: Johnny Wong, Iowa State University, USA
    Single Sign On Architecture with Dynamic Tokens
        F. Satoh and T. Itoh
    Malicious Sniffing Systems Detection Platform
        Z. Trabelsi, H. Rahmani, K. Kaouech, and  M. Frikha
    Performance Analysis of Content Matching Intrusion Detection Systems
        S. Antonatos, K. G. Anagnostakis, E. P. Markatos, and M. Polychronakis

**Short Paper I**
ROOM 905     11:30-13:00
Chair: Katsuyuki Yamazaki, KDDI Labs., Japan
    Traffic Analysis and Worldwide Operation of Open 6to4 Relays for IPv6 Deployment
        Y. Hei and K. Yamazaki
    Endpoint Admission Control Enhanced Systems for VoIP Networks
        A. A. Bilhaj and K. Mase

Path Selection Using Active Measurement in Multi-Homed Wireless Networks
    S. Kashihara, T. Nishiyama, K. Iida, H. Koga, Y. Kadobayashi, and S. Yamaguchi
Introducing Grammar of the Film Language into Automatic Shooting for Face-to-Face Meetings
    A. Inoue, H. Shigeno, K. Okada, and Y. Matsushita

**Short Paper II**
ROOM 905    14:00-15:30
Chair: Shinji Shimojo, Osaka Univ., Japan
    MAS and Fault-Management
        P. Xu and R. Deters
    Metadata Driven Seamless Content Handover in Ubiquitous Environment
        M. Kawarasaki, K. Ooto, T. Nakanishi, and H. Suzuki
    A Method of Appliance Detection Based on Features of Power Waveform
        M. Ito, R. Uda, S. Ichimura, K. Tago, T. Hoshi, and Y. Matsushita
    A Teleconferencing System with High-Speed Stream Mixing for Voice over IP
        K. Ohshima, Y. Tajima, and M. Terada

# Friday, 30 January 2004

**Paper 9    Protocol I**
ROOM 904    09:30-11:00
Chair: Kenichi Baba, Osaka Univ., Japan
    DNS: Disk-to-Network Splicing for Network Driven Data Transferring
        S. S. Lim and K. H. Park
    Multicast Routers Cooperating with Channel Announcement System
        H. Asaeda and W. Dabbous
    MGMS/GML—Towards a New Policy Specification Framework for Multicast Group Integrity
        A. Meissner, S. B. Musunoori, and L. Wolf

**Paper 10    Protocol II**
ROOM 904    11:30-13:00
Chair: Yuji Oie, Kyushu Institute of Tech., Japan
    Realizing High Mobility through an End-to-End Network Architecture with IP Diversity Support for Real Time Internet Applications
        R. Inayat, R. Aibara, K. Nishimura, T. Fujita, and K. Maeda
    A Multi-Dimensional Packet Classifier for NP-Based Firewalls
        M. J. Rashti, H. R. Rabiee, A. Foroutan, and M. Lavasani
    A Transparent Session Migration and Transparent Fail-Over Protocol for PPPoE Server Cluster
        A. Saitoh and H. Masuda

**Short Paper III**
ROOM 904    14:00-15:30
Chair: Hiroshi Esaki, Univ. of Tokyo, Japan
    Design and Implementation of Adaptive Service Disconnect/Reconnect Support Mechanism
        T. Nagata, N. Nishio, and H. Tokuda
    Clustering Search Engine Query Log Containing Noisy Clickthroughs
        W. S. Chan, W. T. Leung, and D. L. Lee
    Remote Visualization Using Resource Monitoring Technique for Volume Rendering of Large Datasets
        Y. Ebara, Y. Watashiba, K. Koyamada, K. Sakai, and A. Doi
    The Design of Virtual Private Network Topology for Migrating to IPv6 World
        E. Kimura, T. Norihiko, and K. Ishihara

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# SYMPOSIUM - Panels
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## Wednesday, 28 January 2004

**Panel 1      The Future of the Internet Architecture**
ROOM 906      11:30-13:00
Chair: Jun-Ichiro Hagino
Panelists:
    James Kempf
    Dave Crocker
    Pekka Nikander
    Hiroshi Esaki

    Evolving the Internet Addressing Architecture
        J. Kempf
    Multiple Address Service for Transport (MAST)
        D. Crocker
    Applying Host Identity Protocol to the Internet Addressing Architecture
        P. Nikander
    Multi-Homing and Multi-Path Architecture Using Mobile IP and NEMO Framework
        H. Esaki

## Thursday, 29 January 2004

**Panel 2      Ubiquitous Services and Networking**
ROOM 906      11:30-13:00
Chair: Hiroyuki Morikawa
Panelists:
    Roy H. Campbell
    Albert Krohn
    Venu Vasudevan
    Kei Suzuki
    Kenichi Yamazaki

    Ubiquitous Computing and the Internet
        A. Krohn
    Ensembleware: Contextual Service Provisioning in an Ubiquitous Services World
        V. Vasudevan
    Ubiquitous Services and Networking: Monitoring the Real World
        K. Suzuki
    Research Directions for Ubiquitous Services
        K. Yamazaki

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### SYMPOSIUM - Tutorials
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## Tuesday, 27 January 2004

**Tutorial 1 (in English)**
ROOM 906    09:30-13:00

    IP-Oriented QoS in the Next Generation Networks: application to wireless
    networks
        Dr. Pascal Lorenz
        Professor
        The University of Haute-Alsace

**Tutorial 2 (in Japanese)**
ROOM 906    14:00-17:30

    802.11 Security -- Past, Today, and the Future ---
        Mr.Motonori Shindo
        Chief Technology Officer
        Data Control, Ltd.


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### Workshops
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## Monday, 26 January 2004

**Workshop 1  E-Business**
ROOM 904    09:30-17:30
Organizers:
    Hitoshi Okada, National Institute of Informatics, Japan
    Jean-Michel Sahut, Institut National des Telecommunications, Evry, France
    Nobuhiko Sugiura, Financial Services Agency, Japan
    Shiro Uesugi, Matsuyama University

Session 1: Technologies and Law Enforcement about Electronic Payment Systems
Chair: Mr. Sugiura
Co-Chair: Prof. Sahut
    Electronic Payment Market: A Non-Optimal Equilibrium
        J.- M. Sahut and M. Galuszewska
    How Does Propagational Investment Currency SYstem Change the World?
        K. Suzuki
    On a Digital Signature Based Cyber Local Money System
        S. Yamasaki
    The Legal Nature of Information Transactions—A Perspective of Information
    License Contracts in Japan
        H.-S.  Seo
Session 2: Valorization Policy and Venture Capitals for E-Business
Chair: Prof. Sahut
Co-Chair: Mr. Sugiura
    ICT Acceptation: The Case of CRM Project
        M. Jegham and J.- M. Sahut
    Responsibility of ICT in the Variance of Decision Making
        A. Levy

Session 3: Technologies and Social Aspects of E-Business Implementations
Chair: Dr. Uesugi
Co-Chair: Dr. Okada

    Suggestions on How to Implement Supply Chain Management: From the Perspective of Japanese Business Relations
        K. Kikuchi
    Issues of E-Business Implementation from Enterprise Architecture Viewpoint
        T. Kamogawa and H. Okada
    On Speculation about Difference and Similarity between a Company, a University, and a Sightseeing City from the Aspect of Business Schemes on Digital Intellectual Assets
        K. Nakano
    A Remote Lecture System with Laser Pointer for the Internet and Broadband Networks
        S. Sugawara and T. Miki
    E-Technologies, Enabler of Innovation Process; Some Case Studies Based on Government and Local Authorities Policy
        B. Salgues
Session 4: P2P Networks Will Change the Community
Chair: Dr. Okada
Co-Chair: Dr. Uesugi
    Legal System and Computer Forensics Business
        I. Takahashi
    The Evaluation System of Research Findings on the Web
        Y. Sakata
    Model Analysis of Digital Copyright Piracy on P2P Networks
        Y. Itakura, M. Yokozawa, and T. Shinohara
    E-Business for Depopulated Areas: Why Not "Re-bundle" Local Loops?
        S. Uesugi


**Workshop 5  Service Oriented Computing Workshop**
ROOM 905    09:30-17:30
Organizers:
    Tatsuya Suda, University of California, Irvine, USA
    Satoshi Tanaka, NTT, Japan
    Tomoko Itao, NTT, Japan
    Atsushi Yamamoto, NTT, Japan

Session 1: Visions of Future Applications
Chair: Tomoko Itao, NTT
    Real-World Oriented Entertainment Applications
        T. Itao, A. Yamamoto, S. Tanaka, and T. Suda
    Wearable Computing in Daily Life
        M. Tsukamoto
    The Design and Implementation of Context-Aware Services
        H. Morikawa
    The Demonstration of Network-Assisted Disconnected Operation for Mobile Communication
        D. Ochi and K. Yamazaki
Session 2: Service Creation Frameworks
Chair: Hiroyuki Morikawa, University of Tokyo
    The Design of Naming-Based Service Composition System for Ubiquitous Computing Applications
        M. Minami, H. Morikawa, and T. Aoyama

A Service-Composition and Service-Emergence Framework for
Ubiquitous-Computing Environments
  M. Takemoto, T. Oh-ishi, T. Iwata, Y. Yamato, Y. Tanaka, K. Shinno, S.
  Tokumoto, and N. Shimamoto
A Service Selection Method Based on Context Types for a Ubiquitous Service
System in a Public Space
  H. Kawamichi, S. Sameshima, H. Kato, and K. Kawano
Implementation and Evaluation of Message Delegation Middleware for ITS
Application
  G. Hattori, C. Ono, S. Nishiyama, and H. Horiuchi
Extended Web Services Framework to Meet Non-Functional Requirements
  Z. U. Singhera
Session 3: Autonomous Components for Service Creation
Chair: Katsumi Kawano, Hitachi
  SDO Model and Its Standardization Activity
    K. Kawakami, S. Sameshima, K. Kawano, J. Suzuki, T. Suda, S. Steglich, and
    S. Shin
  Component Service Model with Semantics (CoSMoS): A New Component Model for
  Dynamic Service Composition
    K. Fujii and T. Suda
  Towards the Automatic Composition of Co-Business Processes
    J. Park
  Evolution and Adaptation of Distributed Network Services
    T. Nakano and T. Suda
Session 4: Platforms and Middleware for Service Creation
Chair: Raymond Klefstad, University of California, Irvine
  The Design and Implementation of Service Emergence Platform Software
    S. Tanaka, T. Iato, A. Yamamoto, T. Suda, and S. Yamada
  Middleware Support for Super Distributed Autonomic Services in Pervasive
  Networks
    J. Suzuki and T. Suda
  ZEUS: A CORBA Framework for Service Location and Creation
    N. Shankaran and R. Klefstad
Session 5: P2P Support for Service Creation
Chair: Hirotoshi Iwasaki, Denso IT Laboratory
  Distributed Pagerank: A Distributed Reputation Model for Open Peer-to-Peer
  Networks
    A. Yamamoto, D. Asahara, T. Itao, S. Tanaka, and T. Suda
  Distributed and Adaptive Discovery Using Preference
    R. Egashira, A. Enomoto, and T. Suda
  Adaptable Peer-to-Peer Discovery of Objects that Match Multiple Keywords
    M. Moore and T. Suda
  Simulation of Information Propagation for Vehicles in Physical Communication
  Network Models
    H. Sasaki, H. Iwasaki, and T. Suda

**Workshop 2  IPv6: Technology and Deployment**
ROOM 906    09:30-17:30
Organizers:
  Hiroshi Esaki, The University of Tokyo, Japan
Program Committee Members:
  Jun Murai, Keio University, Japan
  Akira Kato, The University of Tokyo, Japan
  Hideki Sunahara, NAIST, Japan
  Yoichi Shinoda, JAIST, Japan
  Suguru Yamaguchi, NAIST, Japan
  Satoshi Katsuno, TAO., Japan

Session 1: IPv6 Infrastructure
Chair: Hiroshi Esaki
    IPv6 R&D and Commercial Activities in Europe
        J. Palet and T. Chown
    IPv6 Test-Bed Networks and R&D in China
        H. Ning
    Transition Mechanism in IP-Based Wireless Networks
        S. Thakolsri, C. Prehofer, and W. Kellerer
    6POWER, How to Reach All the Planet with IP
        J. Palet
Session 2: Applications
Chair: Hiroshi Esaki
    A Tele-Control Project over IPv6 in Technical High Schools
        Y. Takamori, K. Tsukamoto, T. Nakamura, S. Yamada, T. Yamashita, T. Suetsugu,
        T. Ogata, M. Mizoguchi, R. Nishimura, M. Otani, H. Egashira, H. Tanaka, K.
        Watanabe, and H. Kondo
    An Experiment Using JGN v6 at Tottori University of Environmental Studies
        M. Imai and R. Atarashi
    Multimedia and Routing Specific Applications on IPv6 Networks
        Y. Hiranaka, M. Ohnuma, A. Yoshida, T. Taketa, T. Hosokawa, T. Yamagata,
        S. Okoma, Y. Hirose, T. Yoneda, S. Takeda, T. Arashida, H. Nakagawa, T.
        Kudaira, and K. Tanaka
Session 3: Implementation
Chair: Hiroshi Esaki
    DNS Transport Size Issues in IPv6 Environment
        K. Rikitake, H. Nogawa, T. Tanaka, K. Nakao, and S. Shimojo
    An Evaluation of IPv6 Multicast Router in JGN IPv6 Networks
        Y. Mikamo, H. Hayashi, T. Miyake, S. Katsuno, K. Kobayashi, and H. Esaki
    High-Speed IPv6 Router/Switch Architecture
        T. Yazaki, T. Kanetake, S. Akahane, Y. Sakata, K. Sugai, and H. Yano
    USAGI IPv6 IPsec Development for Linux
        M. Kanda, K. Miyazawa, and H. Esaki
Session 4: Network Architecture
Chair: Hideki Sunahara
    Design and Implementation of Overlaying Multi-Homing Architecture
        S. Uda, N. Ogashiwa, K. Nagami, K. Kondo, I. Nakagawa, Y. Shinoda, and H.
        Esaki
    Providing Network Services with Multiple Prefix Delegation
        S. Suzuki
Session 5: Mobile
Chair: Hideki Sunahara
    Active Packetization and Priority Description for Scalable Video over IPv6
    Based Wireless Networks
        C.-C. Lee, S.-W. Chen, and P.-C. Chang
    Multihoming in Nested Mobile Networking
        N. Montavont, T. Noel, and T. Ernst
    Mobile IPv6 and AAA Architecture Based on WLAN
        R. I. Chen, R.-C. Wang, and H.-C. Chao


**Tuesday, 27 January 2004**

**Workshop 6  Cyberspace Technologies and Societies**
ROOM 904    09:30-17:30
Workshop Chair: Nobuo Saito, Keio University
Program Co-Chairs:
    Hideyuki Tokuda, Keio University
    Yasushi Kiyoki, Keio University
    Jun Murai, keio University

Organizers:
    Naoki Ishibashi, Keio University
    Masaki Minami, Keio University
    Naofumi Yoshida, Keio University
    Jun'ichi Yura, Keio University

Session 1: Computing and Networking in Cyberspace
    Improving Security for Ubiquitous Campus Applications
        K. Matsumiya, S. Tamaru, G. Suzuki, J. Nakazawa, K. Takashio, and H. Tokuda
    SF2: Smart Furniture for Creating Ubiquitous Applications
        H. Tokuda, K. Takashio, J. Nakazawa, K. Matsumiya, M. Ito, and M. Saito
    The Design of OSPF Extension for Handling Unidirectional-Links
        S. Fujieda, H. Kusumoto, Y. Ohara, and J. Murai
    Shared Questionnaire System for School Community Management
        H. Kubo, H. Ohashi, M. Tamamura, T. Kowata, and I. Kaneko
    An Automatic Generation Method of 3D Visualization for Holistic and Detail
    Relationships on E-Learning Environment
        N. Yoshida, K. Hirata, and J. Miyazaki
Panel Session 1
    Cyber Infrastructure and Governance of Next Decades
        H. Tokuda, T. Hagino, J. Murai, Y. Sone, and M. Umegaki
Session 2: Knowledge and Multimedia in Cyberspace
    A Prototype Implementation of Metadata Generation for Image Retrieval
        H. Sasaki and Y. Kiyoki
    Smart-Media Design Process with Scenario Based Modeling
        K. Kuroda, K. Ochiai, M. Hori, and N. Okude
    Smart-Media Applications Created by Scenario Based Modeling
        T. Matsumoto, Y. Wada, M. Norimatsu, and N. Okude
    Content-Based Filtering System for Music Data
        K. Iwahama, Y. Hijikata, and S. Nishida
    An Implementation of a Semantic Associative Search Space for Medical Document
    Databases
        M. Kawamoto, Y. Kiyoki, N. Yoshida, S. Fujishima, and S. Aiso
Panel Session 2
    Future Directions for Cyber Knowledge and Databases
        Y. Kiyoki, M. Inakage, M. Satoh, and  M. Tomita
Session 3: Multimedia Applications in Cyberspace
    HTTP-Proxy-Assisted Automatic Video Indexing for E-Learning
        Y. Tanaka, T. Itamiya, T. Hagino, and H. Chiyokura
    DACS: Distance Aware Collaboration System for Face-to-Face Meetings
        H. Egi, N. Ohsuga, A. Nakada, H. Shigeno, and K. Okada
    Meta-Chronicle: A Spatial and Temporal Multidatabase System and Its Application
    to Histories
        N. Ishibashi and Y. Kiyoki
    A Meta-Level Career-Design Support System for Connecting Educational and
    Occupational Databases
        Y. Takahashi and Y. Kiyoki
Panel Session 3
    Cyber Applications for Next Societies
        J. Murai, Y. Hibata, K. Kumasaka, A. Maeda, H. Ohiwa, N. Saito, and H. Shimizu

**Workshop 8  High Performance Grid Computing and Networking**
ROOM 905    09:30-17:30
Organizers:
    Satoshi Matsuoka, Tokyo Institute of Technology
    Kento Aida, Tokyo Institute of Technology

Session 1: Application 1
Chair: Katsuki Fujisawa
    A Prototype toward Japanese Virtual Observatory (JVO)
        M. Ohishi, Y. Mizumoto, N. Yasuda, Y. Shirasaki, M. Tanaka, S. Honda, and
        Y. Masunaga
    A Proposal of Pipelined Image Processing in a Grid Environment
        T. Akiyama, H. Yamashita, T. Hara, S. Kato, S. Shimojo, and S. Nishio
    The Second Trans-Pacific Grid Datafarm Testbed and Experiments for SC2003
        O. Tatebe, H. Ogawa, Y. Kodama, T. Kudoh, S. Sekiguchi, S. Matsuoka, K. Aida,
        T. Boku, M. Sato, Y. Morita, Y. Kitatsuji, J. Williams, and J. Hicks
    A Remote Operation System for the 3MV Electron Microscope with a Both-Direction
    Conversation Capability
        H. Mori, K. Yoshida, S. Shimojo, H. Nogawa, T. Akiyama, H. Takahashi, and
        T. Shibayama
Session 2: Application 2
Chair: Satoshi Matsuoka
    High Performance Grid and Cluster Computing for Some Optimization Problems
        K. Fujisawa, M. Kojima, A. Takeda, and M. Yamashita
    Grid-Enabled Applications in Molecular Dynamics Simulations Using a Cluster
    of Dedicated Computers
        T. Amisaki and S.-I. Fujiwara
    Heterogeneous Remote Computing System for Computational Astrophics with
    OmniRPC
        K. Onuma, T. Boku, M. Sato, D. Takahashi, H. Susa, and M. Umemura
    Programming Environment Based on Distributed Shared arrays for
    High-Performance Scientific Computing
        A. Nomoto, W. Kaneko, T. Terada, S. Nakamura, and K. Shimizu
Session 3: Networking and Tool
Chair: Toyokazu Akiyama
    On Modeling GridFTP Using Fluid-Flow Approximation for High Speed Grid
    Networking
        H. Ohsaki and M. Imase
    Transport Protocols for Fast Long-Distance Networks: Comparison of Their
    Performances in JGN
        K. Kumazoe, Y. Hori, M. Tsuru, and Y. Oie
    Autonomous Configuration of Grid Monitoring Systems
        K. Shirose, S. Matsuoka, H. Nakada, and H. Ogawa
    Performance Evaluation of OmniRPC in a Grid Environment
        Y. Nakajima, M. Sato, T. Boku, D. Takahashi, and H. Gotoh
Session 4: Task Allocation
Chair: Hidemoto Nakada
    A New Task Scheduling Method for Distributed Programs Which Require Memory
    Management in Grids
        H. Koide and Y. Oie
    A Comparison among Grid Scheduling Algorithms for Independent Coarse-Grained
    Tasks
        N. Fujimoto and K. Hagihara
    Logical Cluster Construction in a Grid Environment for Similar Protein
    Retrieval
        T. Ohkawa, Y. Nonomura, and K. Inoue


**Wednesday, 28 January 2004**

**Workshop 4  Metadata Applications on the Broadband Network**
ROOM 906    14:00-17:30
Organizers:
    Ray Atarashi, IIJ, Japan
    Junichi Kishigami, NTT, Japan

Shigeo Sugimoto, Tsukuba University, Japan
    Hiroshi Yasuda, The University of Tokyo, Japan


Session 1: Metadata Applications
Chair: Ray Atarashi, IIJ
    A Metadata Framework for Generating Web-Based Learning Materials
        Y. Shirota
    An XQuery Engine for Digital Library Systems that Support XML Data
        J.-H. Kang, C.-S. Kim, and E.-J. Ko
    A Study on Information Media Symmetry Based on Data Types
        K. Ohno
Session 2: Metadata, Communications and Ubiquitous
Chair: Junichi Kishigami, NTT
    An Approach to Integrated Access for a Variety of Museum Information
        A. Yamada, F. Adachi, Y. Komachi, and R. Atarashi
    Policy Based Content Delivery Management Using Metadata
        M. Kawarasaki and R. Atarashi
    Rendezvous Enhancement for Conference Support System Based on RFID
        Y. Kawakita, O. Nakamura, S. Wakayama, J. Murai, and H. Hada


## Thursday, 29 January 2004

**Workshop 9  Ubiquitous Services and Networking**
ROOM 906    14:00-17:30
Organizers:
    Junichi Kishigami, NTT, Japan
    Kazuo Imai, NTT DoCoMo, Japan

    An Evolutionary Approach towards Ubiquitous Communications: A Security
    Perspective
        A. R. Prasad, P. Schoo, and H. Wang
    Security and Trust Issues in Ubiquitous Environments—The Business-to-Employee
    Dimension
        T. Walter, L. Bussard, P. Robinson, and Y. Roudier
    Context Spaces Architectural Framework
        A. Tarlano and W. Kellerer
    A Display Centric Ubiquitous Information System—"Dokodemo-Display"
        T. Sekiguchi, S. Iguchi, M. Ishii, J. Maeoka, A. Ito, and T. Furuhashi


## Friday, 30 January 2004

**Workshop 3  Internet to Support Social Welfare**
ROOM 905    09:30-15:30
Organizers:
    Sumi Heral, University of Florida
    Hideki Sunahara, NAIST
    Katsuyuki Yamazaki, KDDI Labs.

Session 1: Healthcare, Tele-medicine and IAA (I Am Alive) System
Chair: Katsuyuki Yamazaki
    Remote Healthcare Education Based on Synchronous and Asynchronous High Quality
    Video Application
        Y. Shibata and Y. Sasaki
    Experiment of Internet-Based Tele-medicine in Amami Rural Islands
        A. Isechi, C. Oda, R. Shinkura, S. Akiba, H. Fujikawa, and K. Yamazaki
    Accessibility Guidelines for Victim Information Registration and Retrieval
    Systems
        T. Ebina and H. Ohno

Session 2: Emergency and Lifeline Support
Chair: Hideki Sunahara
    Standardization Activity on Emergency Telecommunication System in ITU-T
        I. Murase, M. Murano, and H. Ohno
    Disaster Information System and Its Wireless Recovery Protocol
        N. Uchida, H. Asahi, and Y. Shibata
    QoS Support for VoIP Traffic to Prepare Emergency
        M. Noro, T. Kikuchi, K. Baba, H. Sunahara, and S. Shimojo
    Lifeline Communication System in the Internet
        T. Kikuchi, M. Noro, K. Yamazaki, H. Sunahara, and S. Shimojo
Session 3: Post ICADI Workshop
Chair: Sumi Helal
    Pervasive Computing Research on Aging, Disability and Independence
        W. C. Mann and S. Helal

**Workshop 7  Peer-to-Peer Internetworking**
ROOM 906    09:30-15:30
Organizers:
    Yusuke Doi, Toshiba Corporation, Japan
    Youki Kadobayashi, PhD, Nara Institute of Science and Technology, Japan
    Yuichi Kawasaki, Jnutella.org, Japan
    Hiroyuki Morikawa, PhD, University of Tokyo, Japan
    Fumio Teraoka, PhD, Keio University, Japan


Session 1: Routing in Overlay Networks
Chair: Kenji Saito
    Mitigating Routing Misbehaviour of Rational Nodes in CHORD
        M. Portmann, S. Ardon, and A. Seneviratne
    Achieving Heterogeneity and Fairness in Kademlia
        Y. Kadobayashi
    Peer Group Rendezvous Using Intersection among Peer Groups on DHT
        Y. Doi
Session 2: Mobility and Overlay Networks
Chair: Yusuke Doi
    Content Cruising System under Sparse Movements of Nodes
        T. Ishida, S. Hisamatsu, K. Saito, M. Minami, and J. Murai
    P2P Platform Implementation on PDAs Organizing Ad Hoc Wireless Network
        T. Iwata, S. Miyazaki, M. Takemoto, K. Ueda, and H. Sunaga
Session 3: Collaboration and Trust in Peer-to-Peer Applications
Chair: Youki Kadobayashi
    Vineyard: A Collaborative Filtering Service Platform in Distributed
    Environment
        T. Oka, H. Morikawa, and T. Aoyama
    Maintaining Trust in Peer-to-Peer Barter Relationships
        K. Saito