Chin-Wan Chung Chong-Kwon Kim Won Kim Tok-Wang Ling Kwan-Ho Song (Eds.)

Web and Communication Technologies and Internet-Related Social Issues – HSI 2003

Second International Conference on Human. Society@Internet Seoul, Korea, June 18-20, 2003 Proceedings



Table of Contents

Web Performance

Security and Document Access

| A Study on Monitoring and Protecting Computer System against Interception Threat |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A Very Small Bytecode-Verifier Based on PCC Algorithm for Smart Card |
| A Preliminary Study on Multiple Documents Access via Mobile Devices $$ 116 $$ D.L. Chan, E.K.S. Ho, R.W.P. Luk, and Q. Lu |
| Routing |
| Practical Adaptive Routing Schemes Considering Load Balancing in WDM Networks |
| A Practical RWA Algorithm Based on Lookup Table for Edge Disjoint Paths |
| A Configuration Algorithm for Supporting VC-merge Concept under the Cell-Based MPLS Network |
| Social Issue (Communication) |
| Ill Effects of Broadband Internet under Flat Rate Pricing |
| The Role of Government Policy for Diffusing the High-Speed Internet and the Spreading Economic Effects in Korea |
| Flow in Computer Hacking: A Model |
| \mathbf{XML} |
| Ambiguity Correction Method for Free-Form Annotation in XML Documents |
| An XPATH Query Processor for a Decomposition Storage Scheme 197 Young-Ki Ko, Eui-Kyeong Hong, and Myung Kim |
| Fast Updatable Indexing Scheme for Structured XML Documents207 Sung Wan Kim, Jaeho Lee, and Hae Chull Lim |
| and the second s |

Internet Application

| Collaborative Junk E-mail Filtering Based on Multi-agent Systems |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A Framework for Building Flexible Internet-Based Collaboration Environment |
| A Chinese Automatic Interactive Feedback System for Applying in a Website |
| E-business |
| The Virtual Enterprise: Redefining the Concept |
| Compete with the Retailing Giants for Survival: A Procurement Alliance Approach Enabled by Internet Technology 259 Junsheng Long, Siqing Peng, and Lihua Chen |
| A Virtual Logistics Network and an E-hub as a Competitive Approach for Small to Medium Size Companies |
| Scheduling & Resource Allocation |
| An Efficient Buffer Allocation Technique for Virtual Lanes in InfiniBand Networks |
| Integrated Scheduling Using Rendezvous Window and Sniff Mode for Wireless Personal Area Networks |
| Topological-Order Based Dynamic Polling Scheme Using Routing Path for Network Monitoring |
| Wireless Network |
| An On-Demand Energy-Efficient Routing Algorithm for Wireless Ad Hoc Networks |

XVIII Table of Contents

| A Grid Architecture for Building Hybrid Museums |
|--------------------------------------------------------------------------------------------------|
| A Graph-Based Approach to Compute Multiple Paths in Mobile Ad Hoc Networks |
| Web Component |
| Computer Vision-Assisted Interaction in X3D Virtual Environment on WWW |
| Implementation of a Web Robot and Statistics on the Korean Web |
| DOC: A Distributed Object Caching System for Information Infrastructure |
| Multimedia Communications |
| Reliable Real-Time Transport of Stereo Video for Immersive Media Communication |
| Development of a Multipurpose Audio Transmission System on the Internet |
| Admission Control for TCP Connections in QoS IP Network |
| E-payment and Auction |
| A Study on Mobile Payment System with United Mileage Using USIM394 Jang-Mi Baek and In-Sik Hong |
| Peer-to-Peer Money: Free Currency over the Internet |
| A Framework of Winner Determination Algorithms for Internet Auctions |

Cyber Education

| CESUE: A Cooking Education System in ubiHome Environment |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Methods of Web Authoring |
| Dynamic Conceptual Network Mechanism for a Web-Based Authoring System |
| Mobility & Handoff |
| Mobility Agent with SIP Registrar for VoIP Services |
| MAT: An End-to-End Mobile Communication Architecture with Seamless IP Handoff Support for the Next Generation Internet 465 Riaz Inayat, Reiji Aibara, Kouji Nishimura, Takahiro Fujita, Yoshihiro Nomura, and Kaori Maeda |
| Flow Handoff Scheme to Support Group Mobility in Wireless Ad Hoc Networks |
| Internet Protocols |
| A Flexible Transition Scheme within a Dual Stack Host in IPv4/IPv6 Coexistence Phase |
| Design and Implementation of IPv6-IPv4 Protocol Translation System Using Dynamic IP Address |
| TCP Performance Improvement with ACK Pacing in Wireless Data Networks |
| Mobile Agent |
| Message Transferring Model between Mobile Agents in Multi-region Mobile Agent Computing Environment |

| A Secure Mobile Agent System Using Multi-signature Scheme in Electronic Commerce |
|-----------------------------------------------------------------------------------------------------------------|
| A Nested Token-Based Delegation Scheme for Cascaded Delegation in Mobile Agent Environments |
| |
| Misc Topics in Communications |
| New Mechanisms for End-to-End Security Using IPSec in NAT-Based Private Networks |
| Network Management Services in GSMP Open Interface |
| The Bitmap Trie for Fast Prefix Lookup |
| Short Contributions |
| Framework of Control Protocol for Relayed Multicast |
| The Framework for the Message Transport Agent in a Web-Based Information System |
| Semantic Web Search Model for Information Retrieval of the Semantic Data |
| Building a Web-Enabled Multimedia Data Warehouse |
| Dynamic Order of Rules for RBR Based Network Fault Diagnosis and Recovery System |
| Symmetric and Asymmetric Cryptography Based Watermarking Scheme for Secure Electronic Commerce via the Internet |
| Improving Disk I/O Performance by Using Raw Disk for Web Proxy Servers |

| Superposed Multiple QoS Guarantee in Optical Access Networks619 Myoung Hun Kim and Hong Shik Park |
|----------------------------------------------------------------------------------------------------------------------------------|
| A Selection Process of COTS Components Based on the Quality of Software in a Special Attention to Internet |
| Robust Authentication of Multimedia Stream over Multicast Network 632 Miyoun Yoon, Kiyoung Kim, and Yongtae Shin |
| Strong User Authentication in IEEE802.11 Wireless LAN |
| Refundable Electronic Cash for Mobile Commerce |
| Improved Client Authentication Using Session Authentication in the Internet |
| Performance Analysis of MAC Protocol for EPON Using OPNET |
| Constructing an Internet Chatting Dictionary for Mapping Chatting Language to Standard Language |
| Speaker Verification System for PDA in Mobile-Commerce |
| Efficient Change Detection in Tree-Structured Data |
| Composition of MPEG-7 Visual Descriptors for Detecting Adult Images on the Internet |
| Block Splitting Indexing for Supporting Containment Queries |
| Dynamic Deployment of Software Defined Radio Components for Mobile Wireless Internet Applications |
| Fostering Spatial Visualization Ability through Web-Based Virtual-Reality Program and Paper-Based Program $\dots701$ $OhNamKwon$ |
| Web-Based Instruction Model for Interactive Classroom Learning |
| A Watermarking Method for Halftone Images Based on Direct Binary Search |

XXII Table of Contents

| A Study on Mobile Commerce AAA Mechanism for Wireless LAN719 Gwanyeon Kim, Chinu Lee, Sehyun Park, Ohyoung Song, and Byungho Jung |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analysis of User Utility Function in the Combined Cellular/WLAN Environments |
| New Adaptive Trust Models against DDoS: Back-Up CA and Mesh PKI 731 Jaeil Lee, Minsoo Lee, Jabeom Gu, Seoklae Lee, Sehyun Park, and JooSeok Song |
| An Efficient Broadcast Scheme on a Single Broadcast Channel in a Wireless Internet Environment |
| Experiences with Media-Integrated Distributed Control for C4I Applications in Global Military Infosphere |
| TDM: Enforcement of Security Management System for XML-Centric Electronic Commerce |
| A minimum-Bandwidth Guaranteed Scheduling Algorithm for Data Services in CDMA/HDR System |
| Fair Real-Time Resource Allocation for Internet End System's QoS Support |
| Author Index |