(Front cover)

Proceedings of the Second International Conference on

Networking and Distributed Computing (ICNDC 2011)

Beijing, China, 21-24 September, 2011

Lican Huang, Junwei Cao, Maozhen Li, Stephen A. Jarvis (Eds.)

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The Second International Conference on Networking and Distributed Computing

ICNDC 2011
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Proceedings

The Second International Conference on Networking and Distributed Computing

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Message from General Co-chairs and Program Co-chairs

Welcome to Beijing and to the Second International Conference on Networking and Distributed Computing (ICNDC2011), held at Beijing, China, September 21-24, 2011.

The Networking and Distributed Technologies are the most vital parts of IT technologies in the current days and the future. When the next generation of Internet comes true and mobile systems go to 3G or even 4G in the future, there are trends to transform legacy software into Internet applications. To bring together industrial and academic researchers to discuss hot topics and Trends on Networking and Distributed Computing, with encouraged by successfully organizing the First International Conference on Networking and Distributed Computing (ICNDC2010) in on October, 21-24, 2010 in Hangzhou, P.R.China., we organize the Second International Conference on Networking and Distributed Computing (ICNDC2011) on September, 21-24, 2011 in Beijing, P.R.China. ICNDC2011 focuses on (1) distributed computing and distributed systems track including Clusters and Grids, SOA, SAAS,IAAS, Service Composition and Orchestration, Peer-to-Peer Systems, Cloud Computing, etc. (2) Networking track including IP networks, Next generation Internet, wireless network, wireless mesh networks,4G mobile communications and beyond, etc. (3) Distributed Applications track including application systems such as e-business, e-Science as well as application systems in the fields of Management Science and Economics and Education Science, etc.

This year, we also have one workshop and two sessions that complemented ICNDC2011 program with contributions for semantic P2P networks. The workshop names The Third International Workshop on Semantic P2P Networks (SP2PN2011) (organized by Lican Huang). The Conference Co-chairs and Program Co-chairs of ICNDC2011 would like to thank the organizers of the workshop and sessions for their excellent work and effort in organizing these activities.

ICNDC2011 received 380 submissions (including main track papers, workshop papers and session papers) from over 21 countries and regions. All submitted papers have to go through a rigorous reviewing process. After rejecting parts of papers in the first round quick screen, each of the remainder submissions was reviewed by at least three independent reviewers in a standard peer-review process. Papers belonged to two categories: regular papers of 5 pages and short papers of 4 pages. After rigorous peer-review, we finally select 70 papers (acceptance rate 19%) for publication.

ICNDC2011 is co-sponsored by Tsinghua University, China; Research Institute of Information Technology, Tsinghua University, China; Zhejiang Sci-Tech University, China ;Institute of networking and Distributed Computing, Zhejiang Sci-Tech University, China ; State Key Laboratory of Networking and Switching, Beijing University of Posts and Communications, China; National Natural Science Foundation of China (NSFC), China; Hangzhou Virtual Zone Information Technology Co., Ltd. ICNDC2011 is also technically co-Sponsored by Parallel Computing Centre, Imperial College London, UK; Distributed & Scientific Computing, Cardiff University, UK ; Pacific Northwest National Laboratory, USA; Chinese Academy of Sciences (CAS), China; IEEE Computer Society; IEEE Computer Society Technical Committee on Scalable Computing (TCSC). Their sponsorships support the success of conference.

ICNDC2011 would not have been successful without the support of many people and organizations. First and foremost, we would like to thank all the authors for submitting their papers to the conference, for their presentations and discussions during the conference. We would like to express our most sincere gratitude to Program Committee members and our professional reviewers, who carried out the most difficult work by carefully evaluating the submitted papers.

We would like to give special thanks to the conference sponsors. Here, we specially thank Prof. Laurence T. Yang （ St Francis Xavier University, Canada）for his kindness of helping to get the approval of Technical Co-Sponsor of IEEE Computer Society Technical Committee on Scalable Computing (TCSC). Last but not least, we would like to thank all conference participants for their contribution and support. We hope that all participants can take this opportunity to share and exchange ideas with one another and enjoy ICNDC2011.

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Message from SP2PN 2011 Workshop Chair

W1: The Third International Workshop on Semantic P2P Networks

On behalf of the Organizing Committee, we welcome you to The Third International Workshop on Semantic P2P Networks (SP2PN 2011) and to Beijing, capital city in China.

When more and more nodes and users are connected in the Internet in the cases of Cloud computing and the Internet of Things, centralized computing modes will be failed with the limit band width and privacies. P2P technologies may be the future architecture of Cloud computing and the Internet of Things.

The P2P technologies are used in file sharing applications in the beginning to various general-purpose applications today. There are mainly two types of P2P technologies. The unstructured approach routes nodes by a "flooding algorithm". The structured approach is mostly based on Distributed Hash Table (DHT) technologies. However, these two kinds of P2P approaches do not care about the semantic meaning of the nodes. They do not care about the nodes whose users may take different roles in social groups in the communities. This workshop aims to address the need for more research into the theory and applicability of semantic P2P networks. Areas of interest include Search mechanisms and heuristics for computational resources based on semantic P2P network; Service discovery & utilization based on semantic P2P network , Semantic P2P models of deployment and management of Web Services, Semantic P2P storage systems, Semantic computational sharing and cloud computing over P2P networks, Semantic Peer-to-Peer workflow management systems, Overlay self-organization and management, Semantic computational P2P networks, Semantic P2P networks for scientific workflow, Semantic P2P systems related to social science, and so on.

Following the success of the second workshop SP2PN 2010 in Hangzhou, China, we organize SP2PN 2011 this year in Beijing, China. SP2PN 2011 aims to address the need for more research into the theory and applicability of semantic P2P networks. The topics of SP2PN 2011 include Search mechanisms and heuristics for computational resources based on semantic P2P network, Service discovery & utilization based on semantic P2P network, Semantic P2P models of deployment and management of Web Services, Semantic P2P storage systems , Semantic computational sharing and cloud computing over P2P networks , Semantic Peer-to-Peer workflow management systems, Overlay self-organization and management , Semantic computational P2P networks , Semantic P2P networks for scientific workflow , Semantic P2P systems related to social science, and so on. SP2PN 2011 received 40 submissions. After first round of quick screening, 25 submissions were selected for review and each one was reviewed by at least two PC members. After rigorous peer-review, we finally select 5 papers for publication. Our policy is to guarantee the high-quality of the accepted papers.

We would like to thank program committee members for their hard and excellent work on outstanding reviewing process to select high-quality papers from a large number of submissions. We appreciate all of authors who submitted their high-quality papers to SP2PN 2011.

Lican Huang, Zhejiang Sci-Tech University, China

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