Call for Papers

Fifth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing
(3PGCIC-2010)

In conjunction with BWCCA-2010 International Conference

http://www.lsi.upc.edu/~net4all/BWCCA2010/

November 4-6, 2010
Fukuoka Institute of Technology (FIT), Fukuoka, Japan

Networking for All Systems and Applications

Theme:

P2P, Grid, Cloud and Internet computing technologies have emerged as new paradigms for solving complex problems by enabling large-scale aggregation and sharing of computational, data and other geographically distributed computational resources. Rapid advances are being reported by many researchers and forums as regards understanding numerous issues in such paradigms, from theoretic to application aspects. Moreover, the continuous development of Internet and the construction of new P2P and Grid and Cloud computing infrastructures are making possible the development of large scale applications from many fields of science and engineering.

Grid Computing originated as a distributed paradigm for scientific high performance computing (Distributed Supercomputing, High-Throughput Applications, Data-Intensive Applications, etc.), as an alternative to expensive supercomputers by virtually joining a large number of interconnected computers. Since late 80's, Grid computing domain has been extended to embrace different forms of computing. Such forms include, among others: *Semantic and Service-oriented Grid* –by analogy with Semantic Web, which information, computing resources and services are described using the semantic data model; *Ubiquitous and Pervasive Grid* –pervasive computing resulting from the combination of of mobile and wireless devices environment with the wired Grid infrastructure; *Data Grid* –the controlled sharing and management of large amounts of distributed data); *eScience Grid* (Grid computing for scientific applications from biology, medicine, finance, weather forecast, etc.); *Enterprise Grid computing* –grids deployed within enterprise data centers, usually managed by a single business entity with specific business goals); *Autonomic Grid computing* –Grid systems with self-* properties); *Knowledge Grid* –Grid-based environments that enable interoperation among users, applications, and resources to effectively manage knowledge resources used in Virtual Organizations, eLearning, Online Collaboration, etc.); *Economy Grid* –the development of economic or market-based resource management and contributory systems

P2P Computing appeared as the new paradigm after client-server and web-based computing. P2P systems became quite popular for file sharing among Internet users through Napster, Gnutella, FreeNet, BitTorrent and other similar systems. Differently from centralized or hierarchical models of Grid systems, in P2P systems, nodes (peers) have equivalent capabilities and responsibilities and can be both servers and clients. These systems are evolving beyond file sharing being thus the basis for the development of P2P large scale distributed applications. Moreover, P2P systems have inspired the emergence and development of *social networking* for enabling human interaction at large scale, which are having a tremendous impact on today's information

societies. Since the appearance of the P2P systems, new forms of such paradigm has appeared, including *B2B* (Business to Business), *B2C* (Business to Consumer), *B2G* (Business to Government), B2E (Business to Employee), etc.

Cloud Computing has been defined as a "*computing paradigm where the boundaries of computing will be determined by economic rationale rather than technical limits"*. Cloud computing is a multi-purpose paradigm that enables efficient management of data centers, timesharing, and virtualization of resources with a special emphasis on business model. As in the case of Grid and P2P computing, researchers have started to identify several forms of cloud models such as *PaaS* (Platform-as-a-Service), *SaaS* (Software as a Service), as well as hybrid clouds.

Internet Computing is the basis of all large scale distributed paradigms; it has very fast developed into a vast area of flourishing field with enormous impact on today's information societies. Internet technologies and applications are evolving and keep growing every day. Internet-based computing serves thus as a universal platform comprising a large variety of forms ranging from Web computing (Web portals, Web programming, etc.) to Internet of Things.

Grid, Peer-to-Peer, Cloud and Internet computing are recent paradigms and require the investigation of many challenging research and development issues. The aim of this conference is to present innovative research results, methods and development techniques from both theoretical and practical perspectives related to P2P, Grid, Cloud and Internet computing. The conference seeks original contributions in all relevant areas, including but not limited to the following topics (for a detailed list of topics, please track areas).

Topics:

- Parallel and Distributed Algorithms
- Theoretical model for P2P, Grid, Cloud and Internet Computing Systems
- Programming models, tools, and environments for P2P, Grid, Cloud and Internet Computing Systems
- Grid and P2P Infrastructures for Data Storage and Data Mining
- Middleware for Grid, Cloud and P2P Systems and Applications
- Data Intensive and Computing Intensive Applications
- Scheduling, Resource Discovery and Allocation
- Large-scale Collaborative Problem Solving Environments
- Methodology and Practice of Semantic Grid and Web
- Web and Grid Service-based Applications
- Virtual Organizations and Enterprise Computing
- Cloud Computing and Applications
- Autonomic Computing in P2P, Grid, Cloud systems
- Economics of P2P, Grid, Cloud and Internet Computing
- Ubiquitous and Pervasive Computing Applications
- Overlay Networks for P2P Systems
- Trust Integration and Security in P2P, Grid, Cloud and Internet Computing
- P2P, Grid, Cloud and Internet Computing Scalability, Dependability and Reliability
- Reputation Aggregation for P2P, Grid, Cloud and Internet Computing Systems
- Internet of Things (IoT)
- Utility Computing
- Integrating IoT in Existing Grid and P2P Architectures
- Social networking and implications

Important Dates:

Submission Deadline:	**April 30, 2010**
Author Notification:	June 20, 2010
Final Manuscript:	July 23, 2010
Author Registration:	July 31, 2010
Final Manuscript:	September 5, 2010
Conference Dates:	November 4-6, 2010

Submission Guidelines

Submit a full paper not more than eight pages (CPS proceedings manuscripts: two column, single-spaced), including figures and references, using 10 font size, and number each page. You can find instructions for authors how to format the CPS proceedings manuscripts, at the following web page:

http://www.computer.org/portal/site/cscps/

Prepare your paper in PDF file and submit it electronically to the 3PCGIC-2010 web page:

http://www.lsi.upc.edu/~net4all/3PGCIC2010/

Accepted papers will be given guidelines in preparing and submitting the final manuscript(s) together with the notification of acceptance.

Proceedings of the 3PGCIC-2010 will be published by Conference Publishing Service (CPS). Presented papers at 3PGCIC-2010 will be considered for publication in several special issues in international journals.

Workshops

If you would like to organize a workshop, please submit a workshop proposal including call for papers, number of papers to be accepted, contact person, to the 3PGIC-2010 workshop co-chairs by December 1, 2009. Proceedings of 3PGCIC-2010 workshops will be published by CPS. The schedule of each workshop should follow the conference schedule.

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