

# Call For Paper RDDS'08

## 3rd International Workshop on Reliability in Decentralized Distributed Systems

<http://www.cs.rmit.edu.au/fedconf/index.html?page=rdds2008cfp>  
In conjunction with OnTheMove Federated Conferences (OTM'08)  
<http://www.cs.rmit.edu.au/fedconf/index.html>  
Monterrey, Mexico, Nov 9-14, 2008

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### IMPORTANT DATES

Abstract Submission **June 15, 2008**  
Paper Submission **June 30, 2008**  
Acceptance Notification **August 15, 2008**  
Camera Ready Due **August 25, 2008**

### THEME

Middleware has become a popular technology for building distributed systems from tiny sensor networks to large scale peer-to-peer (P2P) networks. Support such as asynchronous and multipoint communication is well suited for constructing reactive distributed computing applications over wired and wireless networks environments. While middleware infrastructures exhibit attractive features from an application development perspective (e.g., portability, interoperability, adaptability etc.) they are often lacking in robustness and reliability. Distributed systems become increasingly large and complex, thereby compounding many reliability problems that necessitate different strategies and solutions.

For example, in the inherently distributed nature of P2P networks, the most common solution to reliability is to take advantage of redundancy. The same task can be initially assigned to multiple peers. In file sharing applications, data can be replicated across many peers. In messaging applications, messages can be simultaneously sent along multiple paths. Redundancy may not be appropriate, however, in resource-constrained environments such as wireless ad hoc networks where more lightweight alternatives are needed. Some systems even rely on autonomic management technologies inspired by nature and biological organisms to cope with the challenges of scale, complexity, heterogeneity and unpredictability. In any case, the system model (e.g. communication, failures) and application requirements are key factors in the design of reliable mechanisms.

Among different aspects of reliability issues, this workshop focuses on reliability in decentralized distributed systems. While decentralized architectures are gaining adoption in most application domains, there is still some reluctance in deploying them in systems with high dependability requirements. This has led, over the past few years, to several academic and industrial research efforts aimed at correcting this deficiency. For the most part, these research efforts have been independent of each other, and have often focused on specific pieces of the dependability puzzle. Our aim, in this Workshop, is to bring researchers and practitioners together, to further our insight on reliable decentralized architectures and to investigate collectively the challenges that remain.

The Workshop solicits contributions on topics related to, but not limited to, the following:

- Reliable algorithms, communication and architectures
- Dependability in distributed object model
- Models used for autonomic communication (economic, biological, social)
- Computing models for autonomic systems
- Self-healing, self-protecting systems
- Application-specific reliable systems
- Timeliness and availability in support of reliability
- Autonomic system management
- Lessons learned in dependable middleware: what works, what doesn't?
- Metrics, benchmarks and performance studies in evaluating reliability
- Reliability and dependability measurement, modelling and evaluation
- Tools for design and evaluation of reliable systems
- QoS for reliable systems

### GOAL

The purpose of the RDDS 2008 workshop on Reliability in Distributed Decentralized Systems is to bring together researchers from diverse communities who are interested in building dependable reliable distributed systems in decentralized form, to explore ways of making today's middleware technologies more robust, and to discuss and exchange experimental or theoretical results, novel design, work-in-progress, experience, case study, and trend-setting ideas. We seek contributions from researchers of all backgrounds, in particular peer-to-peer systems, messaging, ad hoc communication, middleware and distributed systems, and autonomic management systems.

### SUBMISSION REQUIREMENTS

All submitted papers will be carefully evaluated based on originality, significance, technical soundness, and clarity of expression. All submissions must be in English. Submissions should be in PDF format and must not exceed 10 pages in the final camera-ready format for regular papers and 4 pages for position papers. Author's instructions can be found at <http://www.springer.de/comp/lncs/authors.html>. The paper submission site is located at <http://www.cs.rmit.edu.au/fedconf/rdds/2008/papers>. Accepted workshop contributions will be published by Springer-Verlag as LNCS (Lecture Notes in Computer Science) as a part of the workshop proceedings of the 2008 International On The Move Federated Conferences (OTM). Registering to the OTM conference and RDDS workshop is a prerequisite for the paper to be published.