



MidSens'09, International Workshop on Middleware Tools, Services and Run-Time Support for Sensor Networks, Dec 1st 2009 Urbana Champaign, Illinois, USA

Middleware Tools, Services and Run-Time Support for Sensor Networks (MidSens'09)

Workshop at ACM/IFIP/USENIX 10th International Middleware Conference (Middleware 2009)
Co-located with Middleware 2009, December 1st Urbana Champaign, USA

<http://distrinet.cs.kuleuven.be/events/midsens09/>

CALL FOR PAPERS

The aim of this workshop is to stimulate research in the specific domain of middleware, programming languages and run-time support for wireless sensor networks (WSNs), to collect current expertise, to further refine and integrate different approaches and to bridge the gap between Middleware and WSN researchers. In particular, it will investigate how middleware services can relieve programmers from the lowest level sensor details, while still enabling them to exploit resources in the most optimal way. The workshop will also investigate middleware approaches for integrating sensor networks with the Internet and enterprise systems. MidSens'09 will trigger and guide research efforts to create an integrated middleware vision, which is required to handle the challenges inherent to developing, deploying and managing complex sensor applications in an efficient way.

Many current projects on sensor middleware focus on developing algorithms and components for data aggregation, localization, service discovery, routing, synchronization, etc. These projects, however, often lack attention for integrating these algorithms and components into a generic middleware architecture or for supporting integration between sensor networks and enterprise systems. Sensor network middleware should allow application developers to compose a system that exactly matches their requirements.

Effectively managing sensor networks requires the development of middleware services, tools and run-time support. Of particular importance as sensor network technologies mature is support for the integration of sensor networks with *enterprise systems* and *end-to-end management* of sensor network applications.

The workshop seeks papers in, but not limited to, the areas listed below:

Software engineering support:

- Software architectures
- Sensor middleware programming models and abstractions.
- Macro-programming approaches
- Dynamic reconfiguration & adaptation
- Middleware support for autonomic sensor networks.
- Managing sensor mobility, heterogeneity.
- Lightweight agent middlewares

Middleware services:

- Tracking, localization, and synchronization
- Data management, aggregation and filtering
- Energy-aware middleware mechanisms
- Support for resource awareness and policy-based management
- Fault tolerance, QoS, privacy and security

Management of sensor networks:

- Overlay & topology management
- Resource discovery and management
- Device/Service discovery
- Integration of WSNs with web services, enterprise and legacy systems.

Sensor applications/tools:

- Testing and simulation tools for sensor network middleware
- Experience/application/assessment of sensor middleware
- The use of consumer mobile devices as sensing infrastructure
- Enterprise sensor networks

Submitted papers must be original work in English without substantial overlap with papers that have been published or that are simultaneously submitted to a journal or conference with proceedings. Submissions must not exceed 6 pages, must strictly follow the ACM conference proceedings template, and must be submitted in PDF format. All workshop papers will be uploaded to the ACM Digital Library.

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IMPORTANT DATES

Abstract Deadline:

July 25, 2009

Paper Deadline:

August 1, 2009

Acceptance Notification:

September 15, 2009

Camera-ready version due:

September 29, 2009

Workshop date:

Dec 1, 2008