

MobiSys 2005

THE THIRD INTERNATIONAL CONFERENCE ON
MOBILE SYSTEMS, APPLICATIONS, AND SERVICES

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CALL FOR PAPERS: WORKSHOP ON END-TO-END, SENSE-AND-RESPOND SYSTEMS, APPLICATIONS, AND SERVICES

In conjunction with MobiSys '05, June 5, 2005, Seattle, WA, USA
<http://www.usenix.org/events/mobisys05/eesr05/cfp>

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IMPORTANT DATES:

Paper submissions due:	February 28, 2005
Notification of acceptance:	April 8, 2005
Camera-ready final papers due:	May 5, 2005

OVERVIEW: Intelligent sense-and-respond (S&R) systems will enable existing end-to-end applications and service offerings to become more efficient, nimble, and capable of reacting to new situations dynamically, and, furthermore, will result in a new generation of applications and services not previously imagined. S&R systems will impact applications and services used by a multitude of organizations and professions, such as retail stores, governmental agencies, emergency responders, utility producers and distributors, agriculturalists, and habitat scientists, with the objectives of improving their operations, reducing costs, providing better customer service, and increasing yield.

To achieve what is expected of them, the development of these advanced end-to-end S&R applications and services will require a concerted effort to integrate and achieve a level of seamless interoperability among diverse data collection, application, and actuation processes on a scale never before needed or even imagined. Some of the challenges accompanying these efforts include the development of: innovative system architectures that permit new data collection and control mechanisms to integrate securely with legacy systems; enhanced programming models, event propagation models, and data models to accommodate the ever expanding requirements of S&R applications and services; and inventive design approaches to shield the application developers from dealing with device heterogeneity, locality, availability, etc.

TOPICS: This one-day workshop intends to bring together researchers, professionals, and practitioners to expose, formalize, discuss, and address the challenges pertinent to developing and deploying end-to-end S&R applications and services. Specifically, we solicit original research contributions focusing on, and intimately related to, the following areas listed alphabetically:

- Architectures and technologies for next-generation/emerging end-to-end S&R middleware, applications, and services
- Dealing with heterogeneity of sensor, control, and actuator technologies
- Effective naming and device/service discovery in end-to-end S&R systems
- Event models, propagation, and representation for S&R systems
- Incorporating S&R systems into existing/legacy infrastructures
- Interoperability of end-to-end systems (sensor data, applications, actuators)
- Lifecycle management tools for development, debugging, and deploying of S&R applications and services
- Lightweight agent middleware and event-correlation services for S&R systems
- Programming models/abstractions and information schemas for S&R systems
- Real-life S&R applications and services: experience and assessment
- Sensor data services and sensor data providers: brokering, advertisement, and access

Note: The workshop focuses exclusively on the end-to-end aspects of supporting applications and services on S&R systems. It will not consider any low-layer aspects of sensor and actuator networks (SANETs), such as SANET creation techniques, ad hoc networking, intra-SANET communications and computing, power-related issues, or h/w designs.

To encourage additional audience participation and open discussion in the aforementioned areas, we are considering the possibility of panel discussion sessions during the workshop. Please contact the Workshop Co-Chairs, eesr05chairs@usenix.org, if you would like to propose a panel discussion topic and panelists.

SUBMISSION GUIDELINES: Papers should be submitted via email in PDF format to the Workshop Co-Chairs, eesr05chairs@usenix.org. Submissions should be no more than six 8.5"x11" pages long, including figures, tables, and references, two-column format, using 10-point type on 12-point (single-spaced) leading with at least 1" margins all around.

MobiSys and its workshops, like most conferences and journals, require that papers not be submitted simultaneously to any other conference or publication, that submissions not have been published previously, and that accepted papers not be subsequently published elsewhere without acknowledgement of the original publication. Papers accompanied by nondisclosure agreement forms are not acceptable and will be returned to the author(s) unread. All submissions will be held in the highest confidentiality prior to publication in the Proceedings, both as a matter of policy and in accord with the U.S. Copyright Act of 1976.

REGISTRATION MATERIALS: Complete program and registration information for MobiSys '05 and its workshops will be available in March 2005 on the conference Web site, <http://www.usenix.org/mobisys05>. The information will be in both HTML and a printable PDF file.