

ISDE 2009 PC Co-chairs' Message

Information Systems in a Distributed Environment (ISDE) are rapidly becoming a popular paradigm in this globalization era due to advancements in information and communication technologies. The increased popularity of ISDE due to various factors has resulted in a substantial number of research and industrial studies. Information system development and implementation in distributed environments is still evolving and presents novel challenges. Therefore, it is crucial to understand current research and practices in this regard and share knowledge with researchers and practitioners in these areas. The selected papers of the ISDE 2009 workshop in conjunction with OTM conferences present recent advances and novel proposals in this direction.

Jürgen Münch and Ansgar Lamersdorf, in their paper “Systematic Task Allocation Evaluation in Distributed Software Development,” present a customizable process for task allocation evaluation that is based on results from a systematic interview study with practitioners. In this process, the relevant criteria for evaluating task allocation alternatives are derived by applying principles from goal-oriented measurement, and customization of this process is also demonstrated along with limitations and directions for future work.

“Extending Global Tool Integration Environment Towards Lifecycle Management” by Jukka Kääräinen, Juho Eskeli, Susanna Teppola, Antti Välimäki, Pekka Tuuttila, and Markus Piippola presents the analysis of an open source global tool integration environment, called ToolChain, and proposes improvements for it towards application lifecycle management (ALM). The demonstration of ToolChain and the collection of improvement proposals were carried out in the telecommunication industry. The analysis was made using the ALM framework and global software development (GSD) patterns developed in previous studies in the automation industry.

Pawel Rubach and Michael Sobolewski in their paper “Dynamic SLA Negotiation in Autonomic Federated Environments” propose a new SLA-based SERVICEable Metacomputing Environment (SERVME) capable of matching providers based on QoS requirements and performing autonomic provisioning and deprovisioning of services according to dynamic requestor needs. This paper presents the SLA negotiation process that includes the on-demand provisioning and uses the object-oriented SLA model for large-scale service-oriented systems introduced by SERVME.

Non-functional requirements (NFR) such as network security recently gained widespread attention in distributed information systems. Despite their significance, there is no systematic approach to validate these requirements given the complexity and uncertainty characterizing modern networks. Vicky Papadopoulou and Andreas Gregoriades in their paper “Network Security Validation Using Game Theory” present a game-theoretic approach to security requirements validation. An introduction to game theory is given along with an example that demonstrates the application of the approach.

In “Obstacles in Implementing Agile Methods—Reflections from Experiences in Distributed Environment” by Nilay Oza and co-authors report various reflections from real-world distributed projects where agile methods were implemented. They also present their stance on obstacles in implementing agile methods in industrial software projects in distributed environments.

Despite the fact that global software development (GSD) is steadily becoming the standard engineering mode in the software industry, commercial projects still struggle with how to effectively manage it. In the paper “On the Use of Handover Checkpoints to Manage the Global Software Development Process,” Frank Salger discusses typical management problems in GSD, and describes how handover checkpoints are used at Capgemini to control and safely manage large GSD projects.

“Exploiting Process Knowledge for Event Processing in Distributed Business Applications” by Holger Ziekow addresses event processing for applications in distributed business processes. For this application context an approach for improving in-network processing of events is presented. The role of a priori process knowledge for query optimization is highlighted and distributed event processing based on decision points in the process is illustrated.

In their paper “Distributed Information System Development: Review of Some Management Issues” Alok Mishra and Deepti Mishra review significant management issues such as process and project management, requirements management and knowledge management, which have received much attention from a distributed information system development perspective. The authors have observed that areas like quality and risk management issues can get only scant attention in distributed information system development and implementation.

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