I. PREFACE

Integration and synthesis of heterogeneous, autonomous and distributed data sources have been an essential and hard issue in enterprise computing. It is not always feasible to achieve effective data integration around definite schemas when there are mismatches in cross-domain integration and when such issues as compatibility, scalability, timeliness, and user manipulation are concerned. Service Oriented Architecture and Cloud computing have brought light to dealing with these hard issues. Recent years have seen some important progresses and potentials.

The First International Workshop on Service and Cloud Based Data Integration (SCDI 2012) intends to bring researchers, practitioners and vendors together to discuss and share ideas and experiences. It fosters novel models, methodologies, and solution patterns that address the data integration issue and fit in the service and cloud based settings.

This section of the volume contains the proceedings of the SCDI 2012 workshop, held on September 10, 2012, in Beijing, China, in conjunction with the 16th IEEE International Enterprise Distributed Object Computing Conference (EDOC 2012). Based on a thorough review process, six papers were selected for oral presentation and publication. Each paper was reviewed by several experts in the field. The selected papers present novel contributions on the following subjects:

- The first paper, *Towards a BPM Cloud Architecture with Data and Activity Distribution*, from Evert F. Duipmans, Luis Ferreira Pires and Luiz O. Bonino da Silva Santos, proposes a distribution solution to separate a business process into two business processes: one for cloud and the other for on-premise, which can give users the freedom to place sensitive data and non-computation-intensive activities within the borders of their organization;
- The second paper, *An Item-Targeted User Similarity Method for Data Service Recommendation*, from Cheng Zhang, Xiaofang Zhao and Jianwu Wang, presents a novel method to amend the user similarity generated by a normal similarity algorithm for more accurate effectiveness description of the similarity on data service recommendation;
- The third paper, *Tenant Oriented Lock Concurrency Control in the Shared Storage Multi-tenant Database*, from Chengliang Sang, Qingzhong Li and Lanju Kong, proposes a new TOL (Tenant Oriented Lock) mechanism, which can provide a lock for each tenant as well as the cluster method and the diffusion method to support the granularity adjustment for a single tenant;
- The fourth paper, *Investigating the Collaborative Intention and Semantic Structure among Co-occurring Tags using Graph Theory*, from Weisen Pan, Shizhan Chen and Zhiyong Feng, presents a social tag network and corresponding analyses of its dynamics structure and social properties, which shows the social tag network has small world effect and power law distribution;
- The fifth paper, *Space-bounded Extreme Aggregation of Data Stream over Time-based Sliding Window*, from Weilong Ding, Yanbo Han, Jing Wang, and Zhuofeng Zhao, proposes a space-bounded synopsis data structure and random algorithm for extreme aggregation to get non-exact solution by finite extreme candidates over time sliding window, whose validity can be theoretically guaranteed;
- The sixth paper, *R-MOM: A Component-Based Framework for Interoperable and Adaptive Asynchronous Middleware Systems*, from Jonathan Labejof, Antoine Leger, Philippe Merle, Lionel Seinturier and Hugues Vincent, presents a component-based framework for interoperable and adaptive asynchronous middleware systems, which can interoperate with different kinds of MOM (Message...
Oriented Middleware) and add dynamic QoS supports for all of them.

We would like to take this opportunity to express our gratitude to everyone who has contributed to the success of SCDI 2012. We thank all programme committee members involved in organizing this workshop for their hard work. Credits also go to the authors for submitting their work to this workshop, which may trigger valuable academic communications. In addition, we appreciate the valuable feedbacks from the reviewers, which can undoubtedly help authors to their works. Last but not least, we thank the EDOC 2012 organization committee for their great support.

II. ORGANISATION

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