

Journal of Computers

Special Issue on Cloud Computing

FOREWORD

Cloud computing seems to offer great rewards for companies and organizations. It also brings considerable low costs for the large scale computing applications. It essentially is a representative of distributed computing. However, cloud computing will focus on the concept of computing resources on heterogeneous systems integration. Briefly speaking, it allows different levels of the computer, or different operating system computers to each other through communication standards to communicate with each other and share computing resources. By using cloud computing, developers located around the world will be able to have more immediate and closer cooperation through the same set of platforms. It is the inevitable trend of future development that is integration of a number of computer resources to make concerted efforts to complete the more extensive operation. We need a forum for researchers to share their experiences in cloud computing and to further foster research in these areas.

The objective of this special issue is to present research and developments in various aspects of cloud computing by bring together their research results concerning the relevant topics. We hope that this special issue would encourage the interested computer scientists in Taiwan to enter into this promising and active research area. After a very careful reviewing process, the editorial committee accepts five outstanding papers, among many highly qualified submissions, to be included in this special issue. The first paper, a work by Prof. Shu-Ching Wang, from Chaoyang University of Technology, proposes an enhance fault-tolerance method for the agreement problem in a cloud computing environment. The second paper, a joint work by Prof. Jung-Chung Liu and his colleagues, from Tunghai University, implements a friendly portal to allow people to perform genomic sequence alignments at easy to use in cloud computing environment. The third paper, a joint work by Prof. Kuan-Chou Lai and his research team members, from National Taichung University, proposes a multi-attribute range query overlay based on Chord. The fourth paper, a joint work by Prof. Chao-Chin Wu and his research team, from National Changhua University, Tatung University, and Lin Tung University, proposes a method that can be easily parallelize Fuzzy CLIPS-based expert system based on the MapReduce programming model. The final paper, by Prof. Chao-Tung Yang and resear team from Tunghai University, measures the performance of the cloud computing environment by hiding huge data into the cover images in cloud computing environment.

On behalf of the editorial committee, I would like to express my sincere thanks to all authors and reviewers for their great contribution to this special issue. I would also like to thank the editorial committee members for their excellent helps. Finally, I am grateful to Professor Chin-Chen Chang, the Editor-in-Chief, and the editorial staffs, for their kind helps. Without all of their great contribution and help, it is impossible to have this special issue.

Chu-Hsing Lin and Chao-Tung Yang Guest Editors

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