



CLOUD COMPUTING 2014

The Fifth International Conference on Cloud Computing, GRIDs, and Virtualization

May 25 - 29, 2014

Venice, Italy

CLOUD COMPUTING 2014 Editors

Wolf Zimmermann, Martin-Luther University Halle-Wittenberg, Germany

Yong Woo Lee, University of Seoul, Korea

Christoph Reich, Furtwangen University, Germany

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2014) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2014)

International Academy, Research, and Industry Association (IARIA)
412 Derby Way
Wilmington, DE 19810

Phone: (408) 893-6407
Fax: (408) 527-6351

petre@aria.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

| | |
|---|-----|
| Data Security in Cloud Storage Services | 1 |
| <i>M. Dahshan, S. Kassass</i> | |
| A Loosely-coupled Semantic Model for Diverse and Comprehensive Cloud Service Search and Retrieval | 6 |
| <i>D. Fang, X. Liu, I. Romdhani</i> | |
| A Simulation Framework to Model Accountability Controls for Cloud Computing..... | 12 |
| <i>N. Papanikolaou, T. Rubsamien, C. Reich</i> | |
| Mobile Cloud and Grid Web Service in a Smart City | 20 |
| <i>J. Park, C. Yun, H. Jung, Y. Lee</i> | |
| On Application Responsiveness and Storage Latency in Virtualized Environments | 26 |
| <i>A. Spyridakis, D. Raho</i> | |
| Applying a Resource-pooling Mechanism to MPLS-TP Networks to Achieve Service Agility | 31 |
| <i>T. Iijima, T. Suzuki, K. Sakamoto, H. Inouchi, A. Takase</i> | |
| Analysis of Protection Options for Virtualized Infrastructures in Infrastructure as a Service Cloud..... | 37 |
| <i>R. Chandramouli</i> | |
| A Centralized Architecture for Energy- Efficient Job Management in Data Centers..... | 44 |
| <i>G. Perreas, P. Lampas</i> | |
| Securing the Grid using Virtualization: The ViSaG Model | 49 |
| <i>P. Kuonen, V. Clement, F. Bapst</i> | |
| Challenges and Issues Within Cloud Computing Technology | 55 |
| <i>O. Ali, J. Soar</i> | |
| Good Performance Metrics for Cloud Service Brokers..... | 64 |
| <i>J. O'Loughlin, L. Gillam</i> | |
| Towards Makespan Minimization Task Allocation in Data Centers | 70 |
| <i>K. Li, Z. Wan, J. Wu, A. Blaisse</i> | |
| E-Marketplace for Cloud Services | 76 |
| <i>C. Giovanoli, P. Pulikal, S. Grivas</i> | |
| MuTeBench: Turning OLTP-Bench into a Multi-Tenancy Database Benchmark Framework | 84 |
| <i>A. Gobel</i> | |
| Large-Scale Image Processing Research Cloud | 88 |
| <i>Y. Yan, L. Huang</i> | |
| Hybrid Cloud Architecture for Software-as-a-Service Provider to Achieve Higher Privacy and Decrease Security Concerns About Cloud Computing..... | 94 |
| <i>P. Reinhold, W. Benn, B. Krause, F. Goetz, D. Labudde</i> | |
| An Approach for Hybrid Clouds Using VISION Cloud Federation | 100 |
| <i>U. Hohenstein, M. Jaeger, S. Dippl, E. Bahar, G. Vernik, E. Kolodner</i> | |
| High Performance Computing in a Cloud Using OpenStack..... | 108 |
| <i>R. Ledyayev, H. Richter</i> | |
| Performance Comparison of KVM, VMware and XenServer using a Large Telecommunication Application | 114 |
| <i>S. Shirinbab, L. Lundberg, D. Ilie</i> | |
| Deployment of Secure Collaborative Softwares as a Service in a Private Cloud to a Software Factory | 123 |
| <i>G. Vergara, E. Canedo, S. Freitas</i> | |
| Author Index | |