Contents

Virtualization and Management on Cloud

Automated Overlay Virtual Networking Manager for OpenFlow-Based International SDN-Cloud Testbed .................................................. 3
   Junsik Shin and JongWon Kim

An Educational Virtualization Infrastructure ........................................ 12
   Mohamed K. Watfa, Vincent A. Udoh, and Said M. Al Abdulsalam

A Study of Resource Management for Fault-Tolerant and Energy Efficient Cloud Datacenter ......................................................... 22
   Dong-Ki Kang, Fawaz Alhazemi, Seong-Hwan Kim, and Chan-Hyun Youn

User Isolation in Multi-user Multi-touch Devices Using OS-Level Virtualization ................................................................. 30
   Minkyeong Lee, Minho Lee, Inhyeok Kim, and Young Ik Eom

A VM Vector Management Scheme for QoS Constraint Task Scheduling in Cloud Environment ..................................................... 39
   Kyung-no Joo, Seonghwan Kim, Dongki Kang, Yusik Kim, Hyungyu Jang, and Chan-Hyun Youn

An Adaptive VM Reservation Scheme with Prediction and Task Allocation in Cloud ................................................................. 50
   Jisoo Choi, Yungi Ha, Gyubeom Choi, and Chan-Hyun Youn

A Cost-Effective VM Offloading Scheme in Hybrid Cloud Environment . . . 60
   Myeongseok Hyeon, Heejae Kim, and Chan-Hyun Youn

Dynamic Virtual Machine Consolidation for Energy Efficient Cloud Data Centers ............................................................... 70
   Dong-Ki Kang, Fawaz Alhazemi, Seong-Hwan Kim, and Chan-Hyun Youn

Resource Management, Models and Performance

A New Framework for Cloud Business Process Management ................... 83
   Mohamed K. Watfa, Nafez A.L. Najjar, Jad Cheikha, and Nayef Buali
On Increasing Resource Utilization of a High-Performance Computing System .......................... 93
   Lung-Pin Chen and Yu-Shan Cheng

A Game Theory Based Automated SLA Negotiation Model for Confined Federated Clouds .................. 102
   Asma Al Falasi, Mohammed Adel Serhani, and Younes Hamdouch

Experiences on Setting up On-Premise Enterprise Cloud Using OpenStack .................. 114
   R. Ananthalakshmi Ammal, K.B. Aneesh Kumar, Beniwal Alka, and B. Renjith

Performance Evaluation of Scientific Workflow on OpenStack and OpenVZ .......................... 126
   Amol Jaikar, Syed Asif Raza Shah, Sangwook Bae, and Seo-Young Noh

An Science Gateway with Cost Adaptive Resource Management Schemes .................. 136
   Woojoong Kim, Seung-Hwan Kim, and Chan-Hyun Youn

Hybrid Workflow Management in Cloud Broker System .......................... 145
   Dongsik Yoon, Seung-Hwan Kim, Dong-Ki Kang, and Chan-Hyun Youn

Mobile Cloud and Media Services

Mobile Cloud Computing System Components Composition Formal Verification Method Based on Space-Time Pi-Calculus .......................... 159
   Peng Wang, Ling Yang, and Guo Wen Li

Monitoring Prayer Using Mobile Phone Accelerometer .......................... 168
   Reem Al-Ghannam, Eiman Kanjo, and Hmood Al-Dossari

A Prospective Cloud-Connected Vehicle Information System for C-ITS Application Services in Connected Vehicle Environment .......................... 176
   SeongMin Song, Woojoong Kim, Seong-Hwan Kim, GyuBeom Choi, Heejae Kim, and Chan-Hyun Youn

Video and USB Transmission Devices for Cloud Desktop Service .......................... 184
   Chanho Park and Hanyoung Kim

A Feature-Oriented Mobile Software Development Framework to Resolve the Device Fragmentation Phenomenon for Application Developers in the Mobile Software Ecosystem .......................... 189
   Younghun Han, Gyeongmin Go, Sungwon Kang, and Heuijin Lee

Improving Data Access for Smart World .......................... 200
   Tariq Lasloum and Ahmad S. Almogren
Pervasive Cloud Applications, Services and Testbeds

Implications of Integration and Interoperability for Enterprise Cloud-Based Applications ...................................................... 213
  Justice Opara-Martins, Reza Sahandi, and Feng Tian

Building and Operating Distributed SDN-Cloud Testbed with Hyper-Convergent SmartX Boxes .................................................. 224
  Aris Cahyadi Risdianto, Junsik Shin, and JongWon Kim

On Providing Response Time Guarantees to a Cloud-Hosted Telemedicine Web Service ......................................................... 234
  Waqar Haider, Waheed Iqbal, Fawaz S. Bokhari, and Faisal Bukhari

Modeling Parallel Execution Policies of Web Services ................................................................................................................. 244
  Mai Xuan Trang, Yohei Murakami, and Toru Ishida

A Hybrid Cloud Computing Model for Higher Education Institutions in Saudi Arabia ................................................................. 255
  Muhammad Asif Khan

A Methodology to Select the Best Public Cloud Service for Media Focussed Enterprises ................................................................ 260
  Subhranshu Banerjee, Vikas Mathur, and Sreehari Narasipur

A Cloud Computing System Using Virtual Hyperbolic Coordinates for Services Distribution ......................................................... 269
  Telesphore Tiendrebeogo

Enabling SDN Experimentation with Wired and Wireless Resources: The SmartFIRE Facility ....................................................... 280
  Kostas Choumas, Thanasis Korakis, Hyunwoo Lee, Donghyun Kim, Junho Suh, Ted Taekyoung Kwon, Pedro Martinez-Julia, Antonio Skarmeta, Taewan You, Loic Baron, Serge Fdida, and JongWon Kim

Cloud-Enabling Techniques and Devices

A Buffer Cache Algorithm for Hybrid Memory Architecture in Mobile Devices ............................................................................. 293
  Chansoo Oh, Dong Hyun Kang, Minho Lee, and Young Ik Eom

Protocol for a Simplified Processor-Memory Interface Using High-Speed Serial Link ........................................................................ 301
  HyukJe Kwon and Yongseok Choi
Cloud Computing
6th International Conference, CloudComp 2015,
Daejeon, South Korea, October 28-29, 2015, Revised
Selected Papers
Zhang, Y.; Peng, L.; Youn, C.-H. (Eds.)
2016, XII, 356 p. 185 illus., Softcover
ISBN: 978-3-319-38903-5