

Utility and Cloud Computing 2014

7th IEEE/ACM International Conference on Utility and Cloud Computing

8-11 December, 2014 – London, UK

The Hilton London Paddington hotel, 146 Praed St, London, W2 1EE

<http://computing.derb.ac.uk/ucc2014>



Monday December 8

	GW1	GW2	Redstar	Kingfisher	Hobart	Campanula	King George 5
09:00–09:30	Opening Ceremony						
09:30–10:30	Keynote: Cloud Native Cost Optimization, Adrian Cockcroft (Joint speaker between UCC and the Cloud Control Workshop)						
10:30–10:50	Coffee Break						
10:50–11:15	[R] Greening Geo-Distributed Data Centers by Joint Optimization of Request Routing and Virtual Machine Scheduling, Xudong Xiang, Chuang Lin, Fu Chen and Xin Chen	Cloud Control Workshop	Big Data Computing	Crowdsourcing and Gamification in the Cloud	Tutorial: Help Clinical Intelligence take the next step using state-of-the-art in-memory analytics, Oliver Vettel and Andreas Koop	Cloud Federation Management	Doctoral Symposium
11:15–11:40	[R] A Hybrid Optimization Model for Green Cloud Computing, Lucio Rocha and Eleri Cardozo						
11:40–11:55	[S] Comprehensive Elastic Resource Management to Ensure Predictable Performance for Scientific Applications on Public IaaS Clouds, In Kee Kim, Jacob Steele, Yanjun Qi and Marty Humphrey						
11:55–12:20	[R] Evaluating Energy Efficiency of Gigabit Ethernet and Infiniband Software Stacks in Data Centres, Vincenzo de Maio and Radu Prodan						
12:20–12:45	[R] Detecting Discontinuities in Large Scale Systems, Ian Davis, Haroon Malik and Michael Godfrey						
13:00–13:45	Lunch Break						
13:45–14:30	Keynote: Clinical Intelligence & Integration – Tackling Large Data Analytics in Real Time: Oliver Vettel, Andreas Koop (F. Hoffmann-La Roche AG)						
14:30–14:45	[S] Priority-based Resource Scheduling in Distributed Stream Processing Systems for Big Data Applications, Paolo Bellavista, Antonio Corradi, Andrea Reale and Nicola Ticca	Cloud Control Workshop	Big Data Computing	Crowdsourcing and Gamification in the Cloud	Tutorial: CRISTAL : Designing Traceable Cloud-based Systems, Richard McClatchey, Andrew Branson	Cloud Federation Management	Doctoral Symposium
14:45–15:10	[R] Fostering Energy-Awareness in Simulations Behind Scientific Workflow Management Systems, Gabor Kecskemeti, Simon Ostermann and Radu Prodan						

Thursday December 11

	GW1	GW2	Redstar	Kingfisher	Hobart	Campanula	King George 5
15:10–15:35	[R] Traffic Monitoring Using Video Analytics in Clouds, Tariq Abdullah, M Fahim Tariq, Yusuf Baltaci and Nick Antonopoulos	Cloud Control Workshop	Big Data Computing	Crowdsourcing and Gamification in the Cloud	Tutorial: CRISTAL : Designing Traceable Cloud-based Systems, Richard McClatchey, Andrew Branson	Cloud Federation Management	Doctoral Symposium
15:35–15:50	[S] Scheduling Multiple Divisible Loads in a Multi-cloud System, Seungmin Kang, Bharadwaj Veeravalli and Khin Mi Mi Aung						
15:50–16:15	[R] Using Distributed Analytics to Enable Real-Time Exploration of Discrete Event Simulations, Matthew Malensek, Walid Budgaga, Sangmi Pallickara, Neil Harvey and Shrideep Pallickara						
16:15–16:30	Coffee Break						
16:30–16:55	[R] An Adaptive Distributed Simulator for Cloud and MapReduce Algorithms and Architectures, Pradeeban Kathiravelu and Luis Veiga	Cloud Control Workshop	Big Data Computing	Education in Cloud	Tutorial: CRISTAL : Designing Traceable Cloud-based Systems, Richard McClatchey, Andrew Branson	Cloud Federation Management	Doctoral Symposium
16:55–17:10	[S] AMAD: Resource Consumption Profile-Aware Attack Detection in IaaS Cloud, Kahina Lazri, Sylvie Laniece, Haiming Zheng and Jalel Ben-Othman						
17:10–17:35	[R] Towards Benchmarking Modern Distributed Stream Computing Frameworks, Ruirui Lu, Gang Wu, Bin Xie, Jingtong Hu						
17:35–18:00	[R] Standards-based DevOps Automation and Integration Using TOSCA, Johannes Wettinger, Uwe Breitenbücher and Frank Leymann						
18:00–19:30	Reception						

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13:45–14:00	[S] Pre-Processing Methods of Data Mining, Asma Saleem, Khadim Hussain Asif, Ahmad Ali, Shahid Mahmood Awan and Mohammed A. Alghamdi	Industry Session	Plugfest: Cloud Interoperability	Tutorial: Azure for Microsoft Research, Kenji Takeda	Smart City Clouds Technologies, Applications and Systems	EGI Workshop	King George 5
14:00–14:25	[R] Performance Estimation for Business Workflows on Public Cloud Offerings using Probabilistic, Shiji Kikuchi						
14:25–14:50	[R] Online QoS Modeling in the Cloud: A Hybrid and Adaptive Multi-Learners Approach, Tao Chen, Rami Bahsoon and Xin Yao						
14:50–15:05	[S] Adaptive Downtime for Live Migration of Virtual Machines, Francisco J. Clemente-Castello, Juan Carlos Fernandez, Rafael Mayo and Enrique S. Quintana-Orti						
15:05–15:30	[R] A Utility Model for Volunteered Service Composition, Abdessalam Elhabbash, Rami Bahsoon, Peter Tino and Peter R. Lewis						
15:30–15:50	Coffee Break						
15:50–16:05	[S] Coordination-aware Elasticity, Stefano Marani, Hong-Linh Truong, Georgiana Copil, Andrea Omicini and Schahram Dustdar	Industry Session	Plugfest: Cloud Interoperability	Tutorial: Microsoft Azure for Account-ability, Security and Privacy Workshop	Smart City Clouds Technologies, Applications and Systems	EGI Workshop	King George 5
16:05–16:20	[S] Loose-coupled Benchmark Framework Automates Performance Modeling on IaaS Clouds, Xini Ge, Zhenyue Qi and Ken Chen						
16:20–16:45	[R] Robustness Indicators for Cloud-based Systems' Topologies, Franck Chauvel, Hui Song, Nicolas Ferry and Franck Fleurey						
17:00	Closing Ceremony						

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09:00–09:50	Keynote: Actors in the Cloud: Supporting Security, Scalability and Availability, Gul Agha						
09:50–10:40	Keynote: IT as a Utility: Reality, Aspiration or Myth, Jeremy Frey						
10:40–11:00	Coffee Break						
11:00–11:25	[R] CloudMf: Applying MDE to Tame the Complexity of Managing Multi-Cloud Applications, Nicolas Ferry, Hui Song, Alessandro Rossini, Franck Chauvel and Arnor Solberg	Industry Session	Plugfest: Cloud Interoperability	Tutorial: Model-Driven Management of Multi-Cloud Applications, Dario Ardagna	Smart City Clouds Technologies, Applications and Systems	EGI Workshop	King George 5
11:25–11:50	[R] Development and Evaluation of a Multi-tenant Service Middleware Paas Solution, Michael Hahn, Santiago Gomez Saez, Vasilios Andrikopoulos, Dimka Karatoyanov and Frank Leymann						
11:50–12:15	[R] Metaheuristics-based Planning and Optimization for SLA-aware Resource Management in Paas Clouds, Edwin Yaqub, Ramin Yahyapour, Philipp Wieder, Constantinos Kotsokalis, Ali Jehangiri and Kuan Lu						
12:15–12:30	[S] PICav: Precise, Iterative and Availability Calculation Scheme, Josef Spillner and Johannes Müller						
12:30–12:55	[R] Dynamic Traffic Management for Interactive Cloud Services, Fragkiskos Sardi, Genford Mapp, Jonathan Loo and Mahdi Alash						
13:00–13:45	Lunch Break						

Tuesday December 9

	GW1	GW2	Redstar	Kingfisher	Hobart	Campanula	King George 5
09:00–10:00	Keynote: Medical Big Data on the Cloud : the eTRIKS mission, Yike Guo, Imperial College London						
10:00–10:20	Coffee Break						
10:20–10:45	[R] A Methodology for Online Consolidation of Tasks Through More Accurate Resource Estimations, Jesus Omana Iglesias, Milan De Cauwer, Deepak Mehta, Liam Murphy and Barry O'sullivan	Big Data Computing	Big Data, Intelligence Management and Analytics	Tutorial: Autonomic Clouds, Omer Rana and Manish Parashar	Cloud Automation, Intelligent Management and Scalability	Clouds and eScience Applications Management	Cloud Challenge
10:45–11:10	[R] Learning Based Distributed Orchestration of Stochastic Discrete Event Simulations, Zhiqian Sui, Neil Harvey and Shrideep Pallickara						
11:10–11:35	[R] Online Algorithms for Location-Aware Task Offloading in Two-Tiered Mobile Cloud Environments, Qiufen Xia, Weifa Liang, Zichuan Xu and Bingbing Zhou						
11:35–11:50	[S] Template Embedding: Application architecture based distributed cloud resource allocation, Matthias Keller, Christoph Robbert and Holger Karl						
11:50–12:15	[R] Reducing Costs in Cloud Application Execution Using Redundancy-based Scheduling, Cristiano Vieira, Luiz F. Bittencourt and Edmundo Madeira						
12:15–12:40	[R] Enabling Health Monitoring as a Service in the Cloud, Yang Li, Li Guo and Yike Guo						
13:00–13:45	Lunch Break						
13:45–14:00	[S] Proactive Workload Forecasting Model with Dynamic Resource Allocation for Modern Internet Application, Mohammed Al Ghamdi	Big Data Computing	Big Data, Intelligence Management and Analytics	Tutorial: Azure Machine Learning for Research, Kenji Takeda	Cloud Automation, Intelligent Management and Scalability	Clouds and eScience Applications Management	Cloud Challenge

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14:00–14:25	[R] In-the-know: Recommendation Framework for City-supported Hybrid Cloud Services, Manav Singhal, Jay Ramanathan, Prasad Calyam and Marjorie Skubic	Big Data Computing	Big Data, Intelligence Management and Analytics	Tutorial: Azure Machine Learning for Research, Kenji Takeda	Cloud Automation, Intelligent Management and Scalability	Clouds and eScience Applications Management	Cloud Challenge
14:25–14:50	[R] On the provision of SaaS-level Quality of Service within Heterogeneous Private Clouds, Julio Ricardo Proaño, María Blanca Caminero and Carmen Carrión						
14:50–15:05	[S] Challenges in Achieving IaaS Cloud Interoperability across Multiple Cloud Management Frameworks, Boris Parák and Zdeněk Šustr						
15:05–15:30	[R] Workload Patterns for Quality-driven Dynamic Cloud Service Configuration and Auto-Scaling, Li Zhang, Yichuan Zhang, Pooyan Jamshidi, Lei Xu and Claus Pahl						
15:30–15:50	Coffee Break & Poster Session						
15:50–16:15	[R] Design and Implementation of Middleware for Cloud Disaster Recovery via Virtual Machine Migration Management, Tae Seung Kang	Big Data Computing	Big Data, Intelligence Management and Analytics	Tutorial: Azure Machine Learning for Research, Kenji Takeda	Network Virtualization and SDN for Cloud Data Centres	Clouds and eScience Applications Management	Poster Session
16:15–16:30	[S] An Overview of Cloud Computing Adoption Challenges in the Norwegian Context, Rania El-Gazzar						
16:30–16:55	[R] The Continuity of Out-of-band Remote Management Across Virtual Machine Migration in Clouds, Sho Kawahara and Kenichi Kourai						
16:55–17:20	[R] Transparent Throughput Elasticity for IaaS Cloud Storage using Guest-side Block-level Caching, Bogdan Nicolae, Pierre Riteau and Kate Keahey						

Wednesday December 10

	GW1	GW2	Redstar	Kingfisher	Hobart	Campanula	King George 5
09:00–10:00	Keynote: Enabling Cloud Computing at Hyper-Scale, Kenji Takeda, Microsoft						
10:00–10:20	Coffee Break						
10:20–10:45	[R] A Study of Replica Reconstruction Schemes for Multi-rack HDFS Clusters, Asami Higai, Atsuko Takefusa, Hidemoto Nakada and Masato Oguch	IT as a Utility	Green Cloud Computing	Big Data and Social Networking Management and Security	Tutorial: Data Analysis with R, Shruti Kohli	Trust in Cloud Computing	Tutorial: The Intercloud Architecture and Project, David R. Bernstein
10:45–11:10	[R] Distributed Storage and Service Discovery for Heterogeneous Community Network Clouds, Mennan Selimi, Felix Freitag, Roger Pueyo Centelles and Agusti Moll						
11:10–11:35	[R] Filtering Security Alerts for the Analysis of a Production SaaS Cloud, Antonio Pecchia, Domenico Cotroneo, Rajeshwari Ganesan and Santonu Sarkar						
11:35–11:50	[S] SLAC: A Formal Service-Level-Agreement Language for Cloud Computing, Rafael Brundo Uriarte, Francesco Tiezzi and Rocco De Nicola						
11:50–12:15	[R] Role-based Templates for Cloud Monitoring, The An Binh Nguyen, Melanie Siebenhaar, Ronny Hans and Ralf Steinmetz						
12:15–12:40	[R] A Cloud-Oriented Services Self-Management Approach Based on Multi-Agent System Technique, Fu Hou and Xinjun Mao						
13:00–13:45	Lunch Break						
13:45–14:00	[S] Towards a Mobile Ad-hoc Cloud Management Platform, Ahmed Khalifa, Mohamed Azab and Mohamed Eltoweissy	IT as a Utility	Green Cloud Computing	Big Data and Social Networking Management and Security	Tutorial: Data Analysis with R, Shruti Kohli	Trust in Cloud Computing	Tutorial: Distributed Data Storage: From Dispersed Files to Stealth Databases, Josef Spillner, Johannes Müller

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14:00–14:25	[R] Workload-Aware Incremental Repartitioning of Shared-Nothing Distributed Databases for Scalable Cloud Applications, Joarder Kamal, Manzur Murshed and Rajkumar Buyya	IT as a Utility	Green Cloud Computing	Big Data and Social Networking Management and Security	Tutorial: Data Analysis with R, Shruti Kohli	Trust in Cloud Computing	Tutorial: Distributed Data Storage: From Dispersed Files to Stealth Databases, Josef Spillner, Johannes Müller
14:25–14:50	[R] Tossing NoSQL-Databases out to Public Clouds, Alexandros Antoniadis, Yannis Gerbessiotis, Mema Roussopoulos and Alex Delis						
14:50–15:05	[S] Applying the Prometheus methodology for an Internet of Things architecture, Bogdan Manate, Teodor-Florin Fortis and Dr Philip T Moore						
15:05–15:30	[R] Workflow Partitioning and Deployment on the Cloud using Orchestra, Ward Jaradat, Alan Dearle and Adam Barker						
15:30–15:45	Coffee Break						
15:45–16:30	Keynote: Infrastructure As Code, Joe Baguley, Chief Technology Officer, EMEA, VMware						
16:30–18:00	Panel Discussion: How adaptive should our infrastructure be to support next generation Clouds? Alan Sill (OGF) Erik Elmroth (UMU) Gul Agha (UIUC) Joe Baguley (VMWare) John Wilkes (Google) Andrea Zisman (CUL)						
19:00–21:00	Conference Dinner						