CCGrid 2013 Panel: Cloud Computing

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Panel Questions

1. Describe yourself in 1 minute. You can talk about anything, so also topics that are not research-related.

2. What brought you to the world of cloud computing? What is the relationship between cloud computing and another computing paradigm you have been or are involved with (e.g., grid computing, HPC)?

3. What keeps you close to the world of cloud computing: current, popular, future topics.
1. About Me – Prof. Raj Buyya

- Future Fellow of the Australian Research Council (ARC) @ University of Melbourne.
- Director of CLOUDS Lab @ Melbourne
- Responsible for the development of some popular softwares – Gridbus Broker, GridSim, Workflow Engine, CloudSim, Aneka – used in 40+ countries world-wide.
- CEO of Manjrasoft Pty Ltd
- Editor-In-Chief of IEEE Transactions on Cloud Computing (TCC)
About You (Understanding Audience): Question 1

- How many of (still) working on Cluster/Grid Computing?
- How many of you like to move to Cloud Computing ASAP?

Morgan Kaufman, 2013
McGraw Hill (I), 2013
About You (Understanding Audience): Question 2

- How many of you wish/desire to have your paper:
  - selected for “Best Paper Award” at CCGrid 2014?
  - &/ published in a Journal?

www.computer.org/tcc
2. What brought me to the world of cloud computing? How is it different from Grid?

- **Grid Computing:**
  - Too much academic focused
  - Scientific + batch process-oriented applications.
  - Community was too much obsessed with “one” software??, which was complex & lost itself finally.

- **1999-2006: My focus - Market Oriented Grids**

- **Cloud Computing:**
  - Market-oriented, pay-as-you-go model
  - Virtualised, Elastic, Energy-Efficient
  - QoS and SLA are first class elements
  - Business and Consumer Applications
Aneka: The Cloud Application Platform (CAP) for Resource-Intensive Apps (Available as Manjrasoft Product)

- **SDK** containing APIs for multiple programming models and tools
- **Runtime** Environment for managing application execution management
- **Suitable for**
  - Development of Enterprise Cloud Applications
  - Cloud enabling legacy applications
- **Portability for Customer Apps:**
  - Enterprise ↔ Public Clouds
  - .NET/Win ↔ Mono/Linux
IoT (Internet of Things) Cloud for Smart Cities – City of Melbourne

- **Home**
  - Security
  - Utilities and Appliances
  - Entertainment
  - Health

- **Transport**
  - Traffic
  - Parking
  - Logistics
  - Emergency Services
  - Highways

- **Community**
  - Retail
  - Environment
  - Surveillance
  - Factory
  - Business Intelligence
  - Smart Metering

- **National**
  - Utilities
  - Infrastructure
  - Smart Grid
  - Defense
  - Remote Monitoring

**Internet of Things**
Sensing, Analytics and Visualization tools

*Anytime, Anything, Anywhere*
Thanks for your attention!

- Are there any
  - Questions?
  - Comments/Suggestions

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Aneka as a Cloud Application Platform

- Applications & Services
- Platform
- Infrastructure

Cloud Middleware
- SLA & QoS
- User Management
- Application Management
- Dynamic Provisioning

Aneka
- Scheduling & Execution
- Monitoring
- Billing

Application Development
- Bag of Tasks
- Dist. Threads
- MapReduce

Datacenters
Clusters
Desktop PCs
Public Clouds