

UNIVERSITY OF HYDERABAD

Department of Computer and Information Sciences

SEMINAR NOTICE



DATE: January 3, 2012
TIME: 11:00 am
VENUE: Seminar Room, CMSD
SPEAKER: Dr. Rajkumar Buyya,
Professor, The University of Melbourne, Australia
CEO, Manjrasoft Pvt Ltd, Melbourne, Australia
Visiting Professor, Department of Computer and Information Sciences

TITLE: Cloud Computing: A New IT Model Transforming the Delivery of Science, Business, Healthcare and Societal Application Services

ABSTRACT: Computing is being transformed to a model consisting of services that are commoditised and delivered in a manner similar to utilities such as water, electricity, gas, and telephony. In such a model, users access services based on their requirements without regard to where the services are hosted. Several computing paradigms have promised to deliver this utility computing vision. Cloud computing is the most recent emerging paradigm promising to turn the vision of "computing utilities" into a reality.

Cloud computing has emerged as one of the buzzwords in the ICT industry. Several IT vendors are promising to offer storage, computation and application hosting services, and provide coverage in several continents, offering Service-Level Agreements (SLA) backed performance and uptime promises for their services. It delivers infrastructure, platform, and software (application) as services, which are made available as subscription-based services in a pay-as-you-go model to consumers. The price that Cloud Service Providers charge can vary with time and the quality of service (QoS) expectations of consumers.

This keynote talk (1) presents the 21st century vision of computing and identifies various IT paradigms promising to deliver the vision of computing utilities; (2) defines the architecture for creating market-oriented Clouds, (3) presents Aneka, a software system for rapid development of Cloud applications and their deployment on private/public Clouds with resource provisioning driven by SLAs and user QoS requirements, (4) reports experimental results on deploying Cloud applications in engineering, gaming, and health care domains on private or public Clouds, and (5) concludes with the need for convergence of competing IT paradigms for delivering our 21st century vision along with pathways for future research.

ABOUT THE SPEAKER: Dr. Rajkumar Buyya is Professor of Computer Science and Software Engineering; and Director of the Cloud Computing and Distributed Systems (CLOUDS) Laboratory at the University of Melbourne, Australia. He is also serving as the founding CEO of Manjrasoft, a spin-off company of the University, commercializing its innovations in Cloud Computing. He has authored ~400 publications and four text books. He also edited several books including "Cloud Computing: Principles and Paradigms" recently published by Wiley Press, USA. He is one of the highly cited authors in computer science and software engineering worldwide (h-index=56, g-index=122, and 16500+ citations).

Software technologies for Grid and Cloud computing developed under Dr. Buyya's leadership have gained rapid acceptance and are in use at several academic institutions and commercial enterprises in 40 countries around the world. Dr. Buyya has led the establishment and development of key community activities, including serving as foundation Chair of the IEEE Technical Committee on Scalable Computing and five IEEE/ACM conferences. These contributions and international research leadership of Dr. Buyya are recognized through the award of "2009 IEEE Medal for Excellence in Scalable Computing" from the IEEE Computer Society, USA. Manjrasoft's Aneka Cloud technology developed under his leadership has received "2010 Asia Pacific Frost & Sullivan New Product Innovation Award" and "2011 Telstra Innovation Challenge - People's Choice Award". For further information on Dr. Buyya, please visit his cyberhome: www.buyya.com