

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: Geo-Elasticity In Distributed Cloud Platform

Speaker: Professor Prashant Shenoy
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University of Massachusetts
Amherst

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Chaired by: Dr Ooi Wei Tsang, Associate Professor, School of Computing
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Abstract:

Today's cloud platforms increasingly serve a mobile user base and at the same time, cloud platforms have been designed to be agnostic to the type of end hosts. Our work argues for rethinking cloud platforms to make them mobile-aware. In this context, we are designing a distributed cloud platform that can provide a range of geo-* services, including geo-elasticity, geo-replication, geo-placement. The goal of our effort is to enable future distributed clouds to better server the needs of individual mobile users as well as address aggregate needs of a diverse mobile user base. In this talk, I will discuss the design of GeoScale, a geo-elasticity mechanism for distributed clouds that provides autonomous provisioning across distributed cloud sites. I will describe the design of GeoScale and present initial results from our prototype evaluation. I will end with future directions for mobile distributed clouds research.

Biodata:

Prashant Shenoy is currently a Professor of Computer Science at the University of Massachusetts Amherst. He received the B.Tech degree in Computer Science and Engineering from the Indian Institute of Technology, Bombay and the M.S and Ph.D degrees in Computer Science from the University of Texas, Austin. His research interests lie in distributed systems and networking. Recent projects in his group have emphasized cloud computing and green computing, including work on mobile clouds and an Internet of Things approach for smart energy systems and smart buildings. He has been the recipient of the National Science Foundation Career Award, the IBM Faculty Development Award, the Lilly Foundation Teaching Fellowship, and the UT Computer Science Best Dissertation Award,

and several best paper awards at leading conferences. He is a distinguished member of the ACM and a fellow of the IEEE.