



BASMATI WORKSHOP

Date: 17/05/2018@18:15

Organizer: Dr. Patrizio Dazzi

Host: Institute of Communication and Computer Systems

Objective: Deliver courses on how to exploit the BASMATI platform and technologies for future cases

Audience: Cloud technologies practitioners from pure and cross-cutting IT fields

Attendance: 30-40 people (based on confirmations)

Registration: Free/Open meeting

Address: Omirou 9, Tavros 17778, “G. Karampatzos” amphitheater

Agenda

18:00-18:15	Organizational issues/BASMATI Presentation	K. Tserpes/ICCS
18:15-19:00	Smart Brokering Solutions for Clouds and Cloudlets	P. Dazzi/CNR
19:00-19:30	Use cases	K. Tserpes/ICCS
19:30-20:00	Discussion	All

Description

Cloud technologies represent one of the main pillars around which revolved recent developments targeting large, distributed and high-availability cyber-infrastructure. These technologies enabled both SMEs as well as big companies to access computing resources in scalable, efficient and cost-effective ways. However, the highly dynamic behaviour of supply and demand in clouds, due to changing need from customers as well as mutable resource availability, require specific solutions to be managed. This is particularly relevant in a technological landscape characterized by many actors and platforms, each having its own distinctive features and costs, seldom used in isolation. This complex and dynamic scenario defines a need for automated entities, Cloud Brokers, aimed at helping consumers in discovering, considering and comparing services with different capabilities and offered by different cloud providers, both in isolation and in combination, promoting cross-cloud application migration to alleviate the vendor lock-in.

In this talk we present two contributions in the field of Cloud Brokering, the first is a highly flexible genetic approach for Cloud Brokering, focusing on Infrastructure-as-a-Service (IaaS) resources for satisfying Quality of Service (QoS) requirements of applications. The experimental evaluation of such approach showed that near-optimal solutions can be found, even when dealing with hundreds of providers.



The other result presented is about the self-optimising decentralised service placement in heterogeneous Cloud Federation and targets the complex needs of comprehensive sets of different kinds of applications, ensuring energy efficiency, reduced costs for resource providers while enhancing the user experience. This approach provides decentralized service placement plans by conducting efficient deployments in a scalable, distributed, adaptive, context-aware solutions characterised by high-efficiency and reduced overhead by means of point-to-point interactions occurring among clouds belonging to the same federation.

