

Information and Communication Technologies Institute Carnegie Mellon | PORTUGAL

A N I N T E R N A T I O N A L P A R T N E R S H I P

Faculty Exchange Program Report

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Host: Greg Ganger; Jatras Professor, ECE, Carnegie Mellon University
Period: July to August 2012*

My visit occurred during a relative short period of two months overlapping with class vacations at both Aveiro and CMU Universities. During this period of time I was integrated in the Parallel Data Lab (PDL) of which my host Prof Greg Ganger is the director.

My research objectives for this exchange were to expand my knowledge of cloud computing infrastructures through direct contact with the several ongoing projects taking place at the PDL. During the stay I was able to talk and discuss with several researchers (Faculty, Senior and Phd students) about their ongoing projects and to learn about their subjects.

During the stay, I was integrated into project TASHI, an open-source (Apache) cluster-management system used by multiple OpenCirrus testbeds and actively developed and supported by the PDL. One of the outcomes of my involvement in this project was a personal contribution in the form of an ARP monitor service, which has already been integrated into TASHI. I was also able to research competing solutions such as Open Stack, and since started working in new developments for this framework in conjunction with the PDL team.

In the future, I expect to continue to collaborate with the PDL in Cloud Computing through new projects and eventually through co-orientation of Phd students.

From a teaching point of view, the period of stay made it impossible to participate in lecturing activities. Nonetheless, all the experience gained through my stay at CMU and at the PDL lab will enable me to include new topics on cloud computing in the Msc level courses of DETI, namely Engenharia de Serviços and Gestão Integrada de Redes e Serviços.

Furthermore, I had the opportunity to talk to other faculty members at CMU, namely Prof. Anthony Rowe in the area of M2M communications and the Internet of Things. From these interactions, I expect in the near future to create fruitful collaborations between his research group and mine, in the aforementioned topics.

Overall my stay at CMU was very fruitful and enriching. Several areas of joint work have been established, and results are expected in the near future.