**Application Governance in Modern Cloud Platforms**

Cloud computing started out as a model for provisioning compute infrastructure resources like CPU and permanent storage in an on-demand, pay-per-use basis. Soon, several other flavors of cloud computing (e.g. Platform-as-a-Service, Software-as-a-Service) came into existence, that enabled users to develop, deploy and manage parts of or complete applications. Today, cloud computing is a powerful and mature technology for deploying scalable and high available applications with no upfront investment. Furthermore, cloud computing has established itself as a mechanism for improving resource sharing and utilization. As a consequence, many organizations today adopt the cloud model for their application deployment needs. They do this by either subscribing to existing public clouds, or building their own private cloud platforms.

My research focuses on designing governance solutions for applications deployed in the cloud. This involves traditional techniques such as enforcing governance policies on applications, as well as novel methods for providing strong guarantees for users of cloud applications. This research plan is inspired by the observation that most existing cloud platforms do not enforce strong governance on deployed applications, and they do not provide any guarantees concerning them (except regarding the availability). As a result, developers who use the cloud as a development and runtime platform have to perform a lot of manual labor to push their applications through development, testing and production phases while making sure that the applications are correct and compliant with the organizational standards. On the other hand users of cloud applications have to perform a lot of guesswork and trial-and-error because the applications are provisioned with no meaningful guarantees concerning their performance and other non-functional properties.

My research aims at solving the above problems via automated governance enforcement, and management of service-level agreements (SLAs) in the cloud. I believe attending the Symposium on Cloud Computing (SOCC) will significantly aid my ongoing research efforts by exposing me to the latest and greatest research in the field of cloud computing. I have a paper on SLA prediction in cloud platforms accepted to appear in SOCC 2015. This would be a perfect opportunity for me to present my latest findings to an audience of like-minded peers, and get their input on my work. I am confident that the knowledge and the ideas I can gather by interacting with other researchers in this area will greatly benefit my ongoing research, and help me better understand the limitations of my current research plan, and the actual end-user pain points. I have also closely studied cloud computing (both in the class and in the lab) over the last three years, and I have already published a few papers on related topics (a complete list of my publications is provided in my CV). Therefore, I believe that I can significantly contribute to the proceedings of SOCC 2015 by providing feedback to other researchers, and discussing new ideas with them.

I have attended SOCC in 2013 to present a poster, and I know by first hand experience, how informative and inspiring this event could be to a researcher in cloud computing. I would find it a privilege to attend such a prestigious conference that has played a transformative role in getting cloud computing to where it is today.