Autonomous Platform for Secure Cloud Computing

ICT FET Open Call. FP7-ICT-2011-8. 22 August 2011

Proposal

We propose to develop a supporting structure for Cloud Computing that preserves security specifications and legal regulations, while adapting to changes in environmental conditions and network topologies. This is especially relevant at the case of this type of service-oriented systems that need to evolve at runtime. In this work, we focus on security requirements such as Integrity, Auditability, Authentication, Authorization, Data Encryption, and Non-repudiation.

Furthermore, the framework has to be able to reduce the complexity of the systems or, at least, reduce this complexity from human eyes. The framework will integrate an ad hoc architecture to become as autonomous as possible. An integral part of the system will help identifying security threats and translate these into triggers for adaptation. When security specifications are about to be violated, a reconfiguration in the system is activated to preserve the guarantees. Security guarantees will be safeguarded on a pre-emptive, as well, as a corrective manner.

We examine the subject at the case of Desktop Virtualization, an ecosystem that represents the convergence of mobile and web services, providing virtually unlimited portability and productivity enhancement.

Expertise we are looking for:

Business Process Modelling,
Decision Support Systems for control
Prototyping
Virtualization

Participants are expected to provide an outline of their intended contribution along the lines expressed above. Universities and legally established institutions of Third Countries are eligible to participate in a Consortium for FP7. This is the case of UNAM.

Contact

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