Contribution ID: **171**   Type: **not specified**

Intercloud Security Framework and Architecture Components for Multi-Cloud Data Intensive Applications

This paper presents results of the ongoing development of the Intercloud Security Framework (ICSF), that is a part of the Intercloud Architecture Framework (ICAF), and provides an architectural basis for building security infrastructure services for multi-cloud applications. The paper refers to general use case of the data intensive applications that indicate need for multi-cloud applications platforms that will require corresponding multi-cloud security services. The paper presents analysis of the general multi-cloud use case that helps eliciting the general requirement to ICSF and identifying the security infrastructure functional components that would allow using distributed cloud based resources and data sets. The paper defines the main ICSF services and functional components, and explains importance of consistent implementation of the Security Services Lifecycle Management in cloud based applications. The paper provides overview of the cloud compliance standards and their role in cloud security. The paper refers to the security infrastructure development in the CYCLONE project that implements federated identify management, secure logging service, and multi-domain Attribute Based Access Control, security services lifecycle management. The paper discusses implementation of the Trust Bootstrapping Protocol as an important mechanism to ensure consistent security in the virtualised inter-cloud environment.

Primary author: DEMCHENKO, Yuri (University of Amsterdam)

Co-authors: Dr TURKMEN, Fatih (University of Amsterdam); Mr SLAWIK, Mathias (TU Berkin)

Presenter: DEMCHENKO, Yuri (University of Amsterdam)