

Comparative Analysis on Security Mechanisms in Cloud

Faiza Fakhar*, Muhammad Awais Shilibi*

**Department of Computing, School of Electrical Engineering and Computer Science, NUST, Islamabad, Pakistan*

10msitffakhar@seecs.edu.pk , awais.shibli@seecs.edu.pk

Abstract— Cloud computing confers benefits to its customers but regardless of all the advantages, information security is one of the major concerns on cloud paradigm. Information security challenge rises from the fact that consumer of public cloud services has no access to physical servers while utilizing different cloud services. Several security mechanisms such as access control, key management, privacy management and trust management are used to enhance security at cloud epitome. This research discusses several techniques proposed by different researchers related to different security mechanisms for cloud platform. A brief comparison of all identified techniques is presented based on the criteria identified by National Institute of standards and technology for good practices and quality assessment of security mechanisms.

Keyword— Public Key Infrastructure (PKI), Trust Management, Key Management, Privacy Management, Access Control.



F. Fakhar is doing graduate from School of Electrical Engineering and Computer Science, NUST, Pakistan. Her field of research is information security in cloud computing.



M. A. Shibli finished his PhD from Department of Communication Systems (COS) KTH Sweden. During and before his PhD studies he authored in fifteen publications in the area of security for distributed systems published in international conferences and journals, such as IEEE. He is currently working as Assistant Professor at School of Electrical Engineering and Computer Sciences (SEECs-NUST). His current area of research is security in open distributed systems.