

Analysis of Data and Virtualization Security in Cloud

Dr. M. Mohamed Ismail¹ and Dr. P. Rizwan Ahmed²

Associate Professor, Department of Computer Science¹

Asst. Professor & Head, Department of Computer Applications²

Mazharul Uloom College, Ambur, Tamil Nadu, India

Abstract: *Cloud computing is getting attention of the researchers these days. Large number of users are attached with cloud computing. But as there are several merits of cloud computing some demerits are also there. The one of the greatest threat in cloud computing is security. This security is concerned with data of the users that is present in cloud and is transferred across the clouds and the virtualization concept. In this paper several attacks on cloud are studied and solutions to those threats are compiled. In this paper a secure technique to handle data in cloud and secure virtualization is proposed in this paper. A secure VM migration technique which gives VM isolation guarantee and VM escape protection is proposed here. And it is shown that this security algorithm possess no considerable overhead.*

Keywords: Cloud, VM isolation, VM migration, VM escape, VM image sharing, RSA

REFERENCES

- [1]. C. C. Basics, "Cloud Computing basics for non-experts", cloud weeks, pp. 1–8, May, 2015.
- [2]. Huth and J. Cebula, "The Basics of Cloud Computing", Carnegie Mellon University, Pp.1–4, February, 2011.
- [3]. M. Armbrust, A. D. Joseph, R. H. Katz and D. A. Patterson, "Above the Clouds: A Berkeley View of Cloud Computing", University of California at Berkeley pp. 14-19, February, 2009.
- [4]. T. Cloud and C. Stack, "The Cloud Computing Stack" Diversity Limited, pp. 1-9, October, 2013.
- [5]. URL: "<http://www.thoughtsoncloud.com/2014/03/a-brief-history-of-cloud-computing>", [last visited : May 30, 2015, 10:01:22 AM]
- [6]. URL: "<https://www.salesforce.com/blog/2014/03/things-from-1999.html>", [last visited: June 09, 2015, 2:06:47 AM].
- [7]. S. Home, "Rackspace Support Network Understanding the Cloud Computing Stack", Rackspace Support network, pp. 1–9, May, 2015.
- [8]. M. Sutton, "the Attacker within How Hackers Are Targeting Enterprise Networks from the Inside-Out", the Ohio State University, pp.1-9, November, 2009.
- [9]. Xiaofeng Chen, Jin Li, Willy Susilo, "Efficient Fair Conditional Payments for Outsourcing Computations, Transactions on Information Forensics and Security", IEEE, pp.1687-1694, March, 2012.
- [10]. B. J. Brodtkin, N. W. Cloud, S. Risks, C. Computing and G. A.
- [11]. M. Armbrust, A. D. Joseph, R. H. Katz and D. A. Patterson, "Above the Clouds: A Berkeley View of Cloud Computing", University of California at Berkeley pp. 14-19, February 10, 2009.