Cyber Security of Oil and Gas over the Cloud

Naseer Ahmed[1], Rashid S. Mohammad[2], Waqar Hazoor[3]

[1]Department of Computer Systems Engineering and Science, Balochistan UET, Khuzdar, Pakistan
[2]Department of Energy Systems Engineering, Balochistan UET, Khuzdar, Pakistan
[3]Department of Mechanical Engineering, Balochistan UET, Khuzdar, Pakistan
Corresponding Email: naseerbajoi@gmail.com

Abstract—**The focus on cyber security has adopted a quick acceleration of cloud service. The oil and gas industries have always been kept key concerns on data protection. This has been often obtained through strengthening perimeters and separating networks. However, flaws and poor practices in this method have been confirmed in several regions. This article will discuss the dawn of cloud technology that must not be absorbed as an extra task to security. However, a chance to revitalize and enhance a company's security melodramatically. In this article, a systematic hybrid architecture overview is presented that is most generally in the petroleum companies, with a cloud system and on-premises. Here we observe the important points of verification and authorization, here we observe how these requisite changes affect the cloud and also at key facts like platforms legacy and integration system, and abuser how these embedded in the architecture of cloud-first. In observing the problems involved that cloud security challenges do not actually introduce but with existing practice problems highlighted. Federated identity is an important let-down to implement or to protect and patch separate arrangements or to permit Structure Query language (SQL) access to share largely and unencrypted databases. This signifies a clear and existing danger. Moving from perimeter defence on the conversation and returning the attention to system security. Cloud is offering a good service. Exactly, this fresh technology offers a series of answers. The need for cloud is increased day by day, but some companies are still away from the adoption of this technology. This lesson got across multiple vast scale applications of cloud in manufacturing facts management that permit us to grow overall vendor-individually supervision on the architecture of the cloud. Issues of cyber security must be address and better protection that must be followed.**

Keywords —**Cyber security, oil and gas, cloud**