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Secure Cloud Architecture

Prof. Shraddha S. Kulkarni
Department of BBA(CA)
Sarhad College of Arts, Commerce and Science Katraj, Pune, India

Abstract: *Cloud computing refers to the availability of online resources and services. Global data centers serve as the delivery hubs for cloud services. Cloud computing helps its users by giving them access to virtual resources over the internet. Pay-Per Use-On-Demand mode is provided by cloud computing and e-trade. It may be easily accessible and shared via IT resources with the help of the internet. The primary obstacle in cloud computing is to protection and privacy issues arising from its multi-tenancy structure, as well as the outsourcing of critical applications, infrastructure, and sensitive data. Businesses are utilizing cloud services at a rapid pace; therefore, it is necessary to implement measures that ensure businesses have security and can select a provider that suits them. An advancement in current technology that fulfills the long-held dream of computing as a utility is cloud computing. The majority of private and public sector businesses have been deceived by the emergence of this innovative technology in the IT industry.*

The two main security-based approaches now in use for cloud-based platforms are holomorphic encryption and single tamper-proof hardware. Scalability is a problem for hardware-based solutions, but holomorphic encryptions are merely an idea. Furthermore, because of the different nature of its services and deployment strategy, cloud-based platforms cannot directly incorporate standard defense in-depth security mechanisms. To secure the cloud-based platform, however, the same idea of a multi-layered security mechanism can be suggested..

Keywords: Cloud Computer , Saas, Paas, Iaas , Security and Privacy, Threats, Vulnerability

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