CLOUD AND BLOCKCHAIN INTEGRATION – AUGMENTATION IN CLOUD SECURITY

**ABSTRACT:**

Cloud Computing, one of the successfully thriving technology enables organizations all across the world to store their essential data remotely in the enormous data space known as cloud. It is a distributed computing paradigm that tends to reduce the hardware for the extensive storing of big data for companies, providing them cost-effectiveness at a great extent. When we talk about the Cloud security, it is one of the biggest challenges in Cloud Computing. However, through latest technology it has been assured to provision enhancement in the cloud security as much as possible. The role of an emerging technology of Block-chain has become vital these days as it is itself extremely secure. For Cloud Security Augmentation, Cloud and Block-chain integration can only be a possible combination that could help out. In this content, we shall get to know some basics of Block-chain technology in addition to its trials and challenges. Later on, we shall also put an eye on the Cloud and Block-chain Integration and how it analytically solves the security issue to increase Cloud robustness.

**INTRODUCTION:**

Block-chain, one of the enhanced and spectacular technology provides a concept of chain. It is a distributed data storage and ledger technology that permits to pool data in multiple servers globally. The key difference between an ordinary database and a block-chain is the data structure. A Block-chain collects information together in groups, also known as blocks, which hold sets of information. Blocks have certain storage capacities and, when filled, are chained onto the previously filled block, forming a chain of data known as “Block-chain”. The Block-chain database behaves like an open-source database platform which allows public privilege to see and track data transactions occurring on the servers in real-time. This deducts a chance of hacking the transactions as the synchronization among different blocks or servers is really very fast. One of the best thing about Block-chain is that all the transactions are immutable (i.e. once occurred, not possible to reverse them). This fortunately increases the security as all of the occurred proceedings are recorded and can be viewed by anyone.

These were some key concepts of Block-chain. Further, we shall discuss some of its challenges and trials that are essential to keep in mind while taking a look on Cloud and Block-chain Integration.