Abstract- The cloud is a next generation platform that provides dynamic resource pools, virtualization and high availability. In starting the concept of the Distributed Computing and the Grid Computing is discussed. Then I have focused on the concept of Cloud Computing and its characteristics. This paper provides a brief introduction to the Cloud Computing platform and the services provided by it. This paper also contains some information regarding Cloud Storage. I have also given the comparison of the Cloud Computing with the Grid Computing. The prevalent problem associated with the Cloud Computing is the Cloud Security and the appropriate implementation of the Cloud over the network. I have discussed the policy, software and hardware security issues. Access Control and the use of the Digital Signature to enhance the data security of the Cloud is also discussed in this paper in short.

Keywords- Distributed Computing; Grid Computing; Cloud Computing; IaaS; Paas; SaaS; HaaS; StaaS; Virtualization; Security Issues