

A Review on Cloud Computing and Internet of Things

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Abstract : Cloud Computing is a convenient model for on-demand networks that uses shared pools of virtual configurable computing resources, such as servers, networks, storage devices, applications, etc. The cloud serves as an environment for companies and organizations to use infrastructure resources without making any purchases and they can access such resources wherever and whenever they need. Cloud computing is useful to overcome a number of problems in various Information Technology (IT) domains such as Geographical Information Systems (GIS), Scientific Research, e-Governance Systems, Decision Support Systems, ERP, Web Application Development, Mobile Technology, etc. Companies can use Cloud Computing services to store large amounts of data that can be accessed from anywhere on Earth and also at any time. Such services are rented by the client companies where the actual rent depends upon the amount of data stored on the cloud and also the amount of processing power used in a given time period. The resources offered by the cloud service companies are flexible in the sense that the user companies can increase or decrease their storage requirements or the processing power requirements at any time, thus minimizing the overall rental cost of the service they receive. In addition, the Cloud Computing service providers offer fast processors and applications software that can be shared by their clients. This is especially important for small companies with limited budgets which cannot afford to purchase their own expensive hardware and software. This paper is an overview of the Cloud Computing, giving its types, principles, advantages, and disadvantages. In addition, the paper gives some example engineering applications of Cloud Computing and makes suggestions for possible future applications in the field of engineering.

Keywords : cloud computing, cloud systems, cloud services, IaaS, PaaS, SaaS

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