DESIGN TO SECURE DATA BY USING DNA CRYPTOGRAPHY IN CLOUD COMPUTING

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Abstract: *Cloud computing is the recent technology in the area of distributed computing it provides different online and on-demand services for data storage, network services etc. In cloud there are many issues related with the security but it can be restricted on the sensitive data of the organization like health care, banking etc. DNA cryptography uses the breakable bio-molecular concept for the security and gives us a hope of non-breakable algorithm. The different techniques are developed like ciphers, cryptography, stenography and DN based encryption. The DNA module having the competence to process, store and transmit data, induce the idea of DNA cryptography, this is the combination of the biological DNA sequence and classical cryptography secure the non-reputable data transmission.*

This paper discuss the features of cloud computing the services models and the issues related with secure and suggest a DNA based encryption algorithm for secure the data with the help of the bio - molecular technique.

Key Words: DNA cryptography, cloud computing, Confidentiality, data security, DNA encryption technique, integrity.

1. INTRODUCTION

Cloud computing has newly extended popular technology and largely developed in IT. Cloud storage is not able to had the huge amount of data which is essential for the business. In the future cloud computing is most important part of everyone's life because it stored the huge amount of data, scalability , reliability , and availability are main attributes of cloud computing security is always the main issue in the open system architecture . DNA molecule, have the capacity to store, process, transmit information, this DNA cryptography. DNA cryptography is the technique which combines the chemical   Characteristics of molecules DNA sequence with cryptography which ensure that non- accessible transmission of data. DNA cryptography is defined the practice and study of technique to convert original message into human non-reliable code. DNA Cryptography is the heat of modern electronic security technology DNA cryptography is a technique based on DNA computing notation, this technology does not contain any mathematical code, and it could be too secure. Cloud computing security is always the main issue in the open system architecture. DNA molecule, have the capacity to store, process, transmit information, this DNA cryptography. DNA cloud computing security is always the main issue in the open system architecture. DNA molecule, have the capacity to store, process; transmit information, this DNA cryptography. DNA cryptography is the technique which combines the chemical   Characteristics of molecules DNA sequence with cryptography which ensure that non- accessible transmission of data.
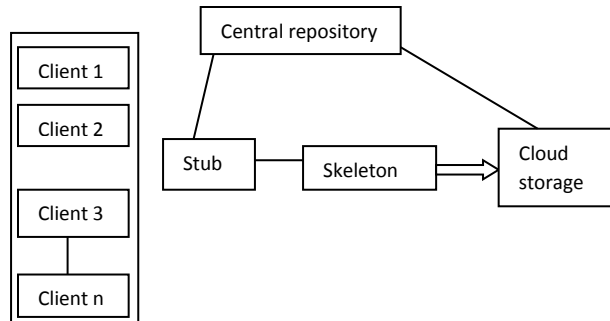
1.1 DNA Cryptography

Before the novel period, cryptography   was only used to keep message secrete by the military leaders, spy and moralist by the end year encryption techniques have been appreciate to conform secure calculus, to check message integrity certify sender and recipients, identities etc.

DNA cryptography is the rapid emerging technology is based on DNA sequences. When DNA computer will be trading available it will break the modern silicon based technology. DNA is the high time to find the different traditional cryptosystem.

1.2 AES (Advanced Encryption Standard)

The commercialized approved symmetric block cipher. AES has a large range of applications in recent security system such as economic transaction, e-business, wireless communication, encrypted data storage and etc. It is hard-bitten and faster than triple AES both in the hardware and software. The number of round as well as the length of keys of AES is variable.

2. ARCHITECTURE OF CRYPTOGRAPHY

3. CONCLUTION

DNA cryptography is a liberal of promises. The commune binary data users two "0" and "1" to the information. But for DNA molecules, which is the spontaneous adapter of information , data is encoded by four bases viz. 'A','T','G' and 'C'. A few grams of DNA molecule have the efficiency to restrict all data stored in the world. DNA cryptography combines the huge parallelism and storage capacity of DNA molecules with traditional methodologies of cryptography.

4. REFERENCES

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