ABSTRACT

Cloud computing is the latest technology in the field of distributed computing. It provides various online and on-demand services for data storage, network services, platform services and etc. Many organizations are unenthusiastic to use cloud services due to data security issues as the data resides on the cloud services provider’s servers. To address this issue, there have been several approaches applied by various researchers worldwide to strengthen security of the stored data on cloud computing. The Bi-directional DNA Encryption Algorithm (BDEA) is one such data security techniques. However, the existing technique focuses only on the ASCII character set, ignoring the non-English user of the cloud computing. Thus, this proposed work focuses on enhancing the BDEA to use with the Unicode characters

**EXISTING SYSTEM**

The most recent innovation in distributed computing is cloud computing. It offers data storage, network services, platform services, and other services online and on demand. Because the data is stored on the servers of the cloud services provider, many businesses are hesitant to use these services.

DISADVANTAGES

1. The current method doesn't take into account cloud computing users who don't speak English because it only looks at the ASCII character set.

**PROPOSED SYSTEM**

Previous section describes the study about the cloud computing, basics of cloud computing and security problems occurs in cloud. Here in this paper, the Bi-serial DNA encryption algorithm is performing, that providing the two level of security

ADVANTAGES

1. One such method is the Bi-directional DNA Encryption Algorithm (BDEA) we are using to provide more security.

SYSTEM REQUIREMENTS

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows 7.
* Coding Language : JAVA/J2EE
* Tool : Netbeans
* Database : MYSQL
* SERVER : Apache tomcat

**CONCLUSION**

Data security is the main challenge for cloud usability.Various algorithms like RSA, Diffie-Hellman, DNA encryption etc. are available to provide data security for the data stored on cloud.Digital signatures, Extensible Authentication Protocols are used for authentications.Using BDEA algorithm, we achieve 2-layer security for ASCII character sets.The proposed system focuses on extending the BDEA algorithm to be used with Unicode character set. This can help reach to the wider community of the cloud users.The future work will focus on the possible attacks and cryptanalysis of the cipher text and measure its strength.

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