Implementation of Picture key Algorithm in Distributed Networking to Enhance security

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ABSTRACT:

In this research we have make Implementation of Picture key Algorithm in Distributed Networking to Enhance security. One popular trend is client/server computing. This is the principle that a client computer can provide certain capabilities for a user and request others from other computers that provide services for the clients. (The Web's Hypertext Transfer Protocol is an example of this idea.)Enterprises that have grown in scale over the years and those that are continuing to grow are finding it extremely challenging to manage their distributed network in the traditional client/server computing model. The recent developments in the field of cloud computing has opened up new possibilities. Cloud-based networking vendors have started to sprout offering solutions for enterprise distributed networking needs. Whether it turns out to revolutionize the distributed networking space or turns out to be another craze remains to be seen.

1. INTRDOUCTION

Distributed Networking is a distributed computing network system, said to be "distributed" when the computer programming and the data to be worked on are spread out over more than one computer. Usually, this is implemented over a network.

Prior to the emergence of low-cost desktop computer power, computing was generally centralized to one computer. Although such centers still exist, distribution networking applications and data operate more efficiently over a mix of desktop workstations, local area network servers, regional servers, Web servers, and other servers.

Distributed computing is a field of computer science that studies distributed systems.

2. NEED OF RESEARCH

Distributed Network security is sometimes more than what people always thought it to be,malware, virus, Trojan, hackers. Distributed Network security could be caused by unintentional human

error and it could be compromised by human nature as well.

A common Distributed network security problem (Employees) most organizations are facing sometimes has to do with the company's employees and their various errors they make. According to Dr. Michael E. Whitman, CISM, CISSP, and the author of the textbook "Principals of Information Security, "Humans make mistakes; sometimes that is due to inexperience or improper training, and sometimes it because an incorrect assumption was reached. But regardless of the reason— and the lack of malicious intent— something as simple as a keyboarding error has the potential to cause a worldwide Internet outage". (Whitman and Mattord 2012) The problem of piracy is another common network problem

3. SECURITY OF DISTRIBUTED NETWORK

During this time when the Internet provides essential communication between tens of millions of people and is being increasingly used as a tool

for commerce, security becomes a tremendously important issue to deal with. There are many aspects to security and many applications, ranging from secure commerce and payments to private communications and protecting passwords. One essential aspect for secure communications is that of cryptography. While cryptography is necessary for secure communications, it is not sufficient. Modern cryptography intersects the disciplines of mathematics, computer science, and electrical engineering. Applications of cryptography include ATM cards, computer passwords, and electronic commerce. Cryptography prior to the modern age was effectively synonymous with encryption, the conversion of information from a readable state to apparent nonsense. The originator of an encrypted message shared the decoding technique needed to recover the original information only with intended recipients, thereby precluding unwanted persons to do the same. Since World War I and the advent of the computer, the methods used to carry out cryptology have become increasingly complex and its application more widespread.

4. IMPLEMENTATION

Sender side:

Figure 1 Snapshot of Picture Key Crptosystem For the proposed protocol key picture and data picture are shared between sender and reciver.

Figure 2 Snapshot of Message Encrypted with Shared Picture

In above figure 5.7 we have taken the same message “hell how r u?” as our plain text. The plain text is encrypted using Key picture with DES.

Figure 3 Snapshot of Browsing of Cover Picture for Encryption

In above figure 5.9 we have taken data picture to encrypt the cipher picture.

Figure 4 Snapshot Of Encrypted Message Is Again Encrypted With Cover Picture

In the above figure 5.10 the cipher picture is encrypted using the Data picture with the help of

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