RESOLVING ATTENUATION PROBLEM IN NETWORK SOCKET: A REVIEW

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Abstract: Networking is a process of information & ideas among individuals or groups that share common interests. Networking has been two categories: social or business. Less commonly in finance, term networking may also refer to setting up & operation of a physical computer network. A network forms interconnecting lines through passages, lines or wire. One line may intersect with another, & then second line goes in a different direction to connect to more lines, & soon & so forth to form a netlike structure. Business connections may form due to someone worker, employer, firm, industry or common colleagues.

Keyword Boosting, Data Transmission, professional, communication

I. INTRODUCTION

Networking is a process that fosters exchange of information & ideas among individuals or groups that share common interests. Networking has been one of two categories: social or business. Less commonly in finance, term networking may also refer to setting up & operation of a physical computer network.

A network forms interconnecting lines through passages, lines or wire. One line may intersect with another, & then second line goes in a different direction to connect to more lines, & soon & so forth to form a netlike structure. Symbolically, some network remains connected through a series of symbolic ties. Business connections might to someone education, employer, industry or common colleagues. In business networking, objectives are to form professional relationships that might boost one's future

business & employment prospects. Networking occasion, like as conferences & meetings should be simple practice within professional business plan, which may also link up with other bodies to stage a joint event. Strategies for growing some network include developing relationships within people & companies as opposed to just swapping contact information.
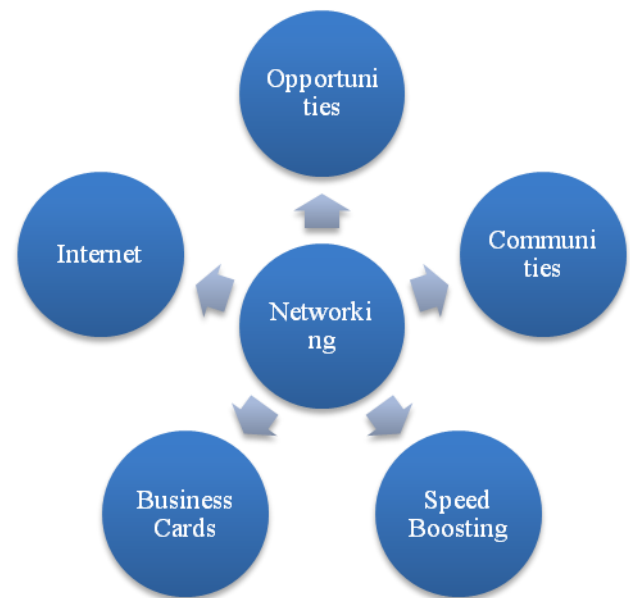

Fig 1 Networking

Business Networking

In terms of business networking, one of implicit objectives is to form professional relationships that may boost one's future business & employment prospects.

Online Networking

Business networking has received a tremendous boost in participation thanks to burgeoning popularity of business networking websites. Joint In impart an online meeting indentify for business professionals to connect with other professionals, join groups, post blogs & create online profiles with goal of catching attention of others with similar interests.

Computer Networking

Networking of computer has been includes related to computers in common building or office so client could readily communicate with other computers or devices. Switches connect multiple devices in one building on same network.

II. LITERATURE REVIEW

In this section we have discussed existing work related to wired & wireless network.

David B. Johnson, Member (2006) "Wormhole charges within Wireless Networks" [2]

As network security system are install requirement. They explain wormhole attack, a severe attack within ad hoc networks that is particularly challenging to defend against. Wormhole strike is workable even if attacker had not injure any hosts, & even if all statement provides authenticity & confidentiality.

Di Ma Michigan Dearborn (2010) Security & Privacy in Emerging Wireless Networks [4]

Wireless communication is continuing to make inroads into many facets of society & is gradually becoming more & more ubiquitous. During within history wireless utterance was largely limited to first & last transmission hops, today's wireless networks are starting to offer purely wireless, often mobile, & even opportunistically connected operation. Purpose of this article was to examine security & privacy issues within some new & emerging types of wireless networks, & attempt to identify directions for future research.

Andriy Panchenko (2011) Lightweight unhide Services [5]

Hidden services are mechanisms designed to provide network services while preserving anonymity for identity of server. As well protecting personality of server, unhide services help to stand firm censorship, are resistant against distributed DOS attacks, & allow server functionality even if service provider does not own a public IP address. Currently, only Tor network offers this feature within full functionality. However, HS concept within Tor is complex & provides poor performance.

Satish Ms. Sonal Rane (2012) Performance Evaluation of Wired & Wireless Local Area Networks [6]

Large scale integration of complex circuits on to a smaller chip demands for evolution of high speed computer networks. Traditional wired network constraints like mobility & expensive cabling. Communication of wireless is a plastic data communication system execute as an extension to or as an another for wired communication.

Mr. Sachin Taluja (2012) Survey on Network Security, Threats & Firewalls [7]

Author has been explains numerous types of network threats in network security method & their answer by use of different firewalls phenomena. In this research, different mechanism in modern computer network security concept, threats to network & their solution by using of firewall are surveyed. Review is done concerning analysis of network security data, different challenges in form of network threats used by hackers & appropriate security mechanisms within potential vulnerabilities by means of using different type of firewalls.

III. Types of Networking

The two common types of networks are peer-to-peer & client/server. They allow users to share information or resources.
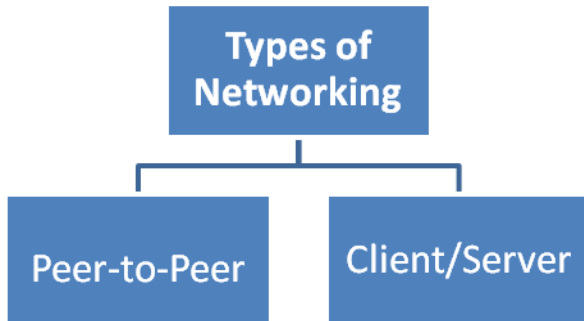

Fig 2 Type of network

Peer-to-Peer Networks

It consists of basic methods that allow multiple users to share resources such as printers & fax machinery. These resources are connected to multiple computers in a peer-to-peer network.

Server Networks

Computer network where centralized and powerful computer called server is a hub. Several less powerful personal computers or workstations called clients are connected to it. Clients run programs and get information that is stored on server.

Network Topology

Network topology is layout pattern of interconnections of various elements of a computer or biological network. Network topologies might be physical or logical. Physical topology refers to physical design of a network including devices, location &cable installation. Sensible topology refers to how data is actually transferred in a network as opposed to its physical design. In general physical topology relates to a core network whereas logical topology relates to basic network.
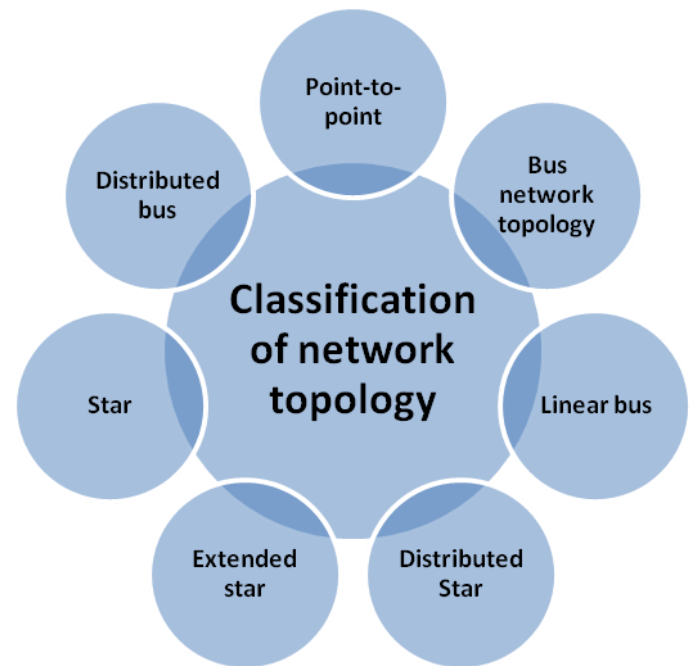

Fig 3 Classification of network topology

Point-to-point

Point to point is simplest topology with a dedicated link between two endpoints.

Bus network topology

In local area networks where bus topology is used, each node is connected to a single cable, within help of interface connectors.

Linear bus

The type of network topology in which all of nodes of network that are connected to a common transmission medium which has exactly two endpoints all data that is transmitted in between nodes in network is transmitted over this common transmission medium & is able to be received by all nodes in network simultaneously.

Distributed bus

Network topology in connected to a common transmission medium which all of nodes of network are which has more than two endpoints that are created by adding branches to main section of transmission medium physical distributed bus topology functions in exactly same fashion as physical linear bus topology.

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Star

In star area of local network within a star topology, every network host is related to a middle hub with a point-to-point connection.

Extended star

A type of network topology in which a network that is based upon physical star topology has one or more repeaters between central node.

Distributed Star

A type of network topology that is composed of individual networks that are based upon physical star topology connected in a linear fashion with no central or top level connection point.

IV. OBJECTIVE

The main objective of research is to boost data transmission speed over network without introducing any new hardware. To do this we have to under stand reasons of delay in data transmission. We are focusing on following objectives:

1. Establishment of Network Environment to test flow of packets
2. Development of packet sender & receiver module.
3. Testing transmission delay in packet transmission
4. Testing processing delay during packet transmission
5. Testing queuing delay of network packets
6. Testing propagation delay at time of data transmission
7. **Development** of algorithm using java based socket programming to transfer packet from sender to receiver in minimum time.

V. RESEARCH METHOLOGY

Client Server Model

It is achievable for two network system to begin simultaneously, but it is important to require it. Therefore, it makes sense to design communicating network applications[8] to perform complementary network operations in sequence, rather than simultaneously. server executes first & waits to receive; client executes second & sends first network packet to server. After initial contact, either client or server is capable of sending & receiving data.

Symmetric Key Cryptography[11]

Server authenticate user & user authenticate server generating a very strong session key using their shared password over an insecure channel by using symmetric cipher.

A special function issued by having distortion & picture subroutines used as password in order to save password from offline dictionary attack.

Work is implemented in one of major used language named java.

This model would create a separate layer for data transmission & hacker[15] would not be capable to access data on wireless network without application layer required on client.
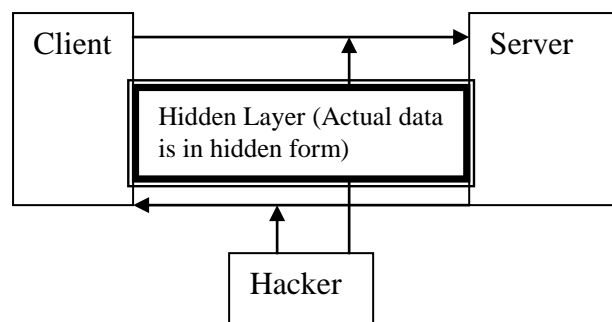

Fig 4 Proposed Model

V. SCOPE OF RESEARCH

This research is beneficial for both local as well as global area network. Boosting of data transmission speed is major requirement of day. As number of users or load increases beyond some limit on wireless network could cause collisions among packets sent by users & due to that retransmissions occurs in wireless network which degrade

performance. So to improve overall performance of system it is better to use customized data transmission module that would allow fast data transmission on both wired & wireless network.

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