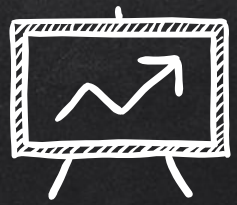

Peer To Peer File Transfering

HELLO! WE ARE FROM GROUP 9

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1. Introduction
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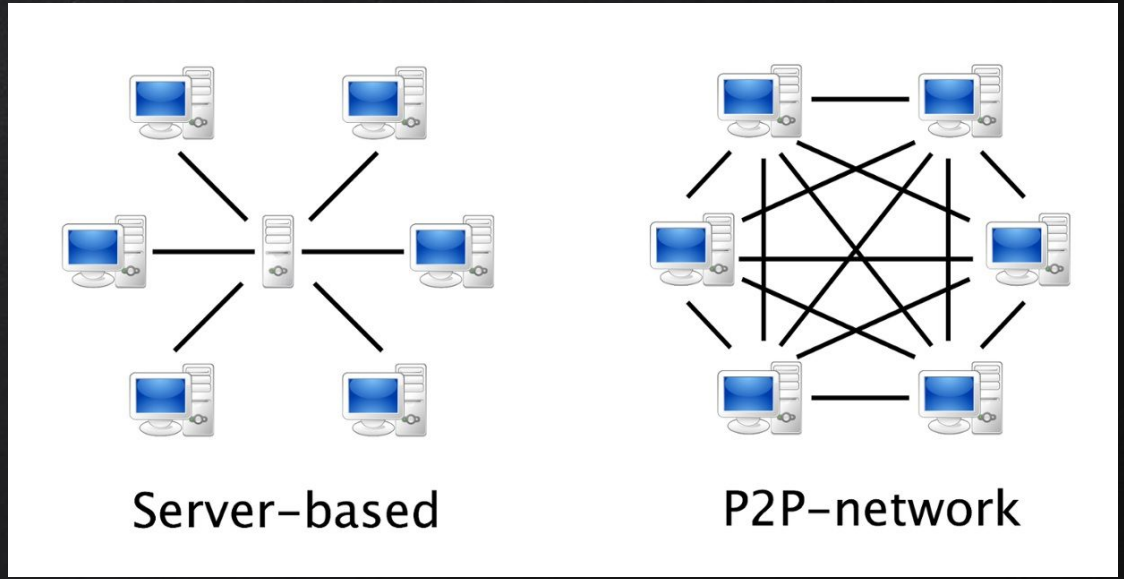
1 Introduction

- What is p2p?

Peer-to-peer, or P2P in its abbreviated form, refers to computer network using a distributed system.

- Why p2p?

It allows the computers to connect with each others to receive and send files simultaneously.



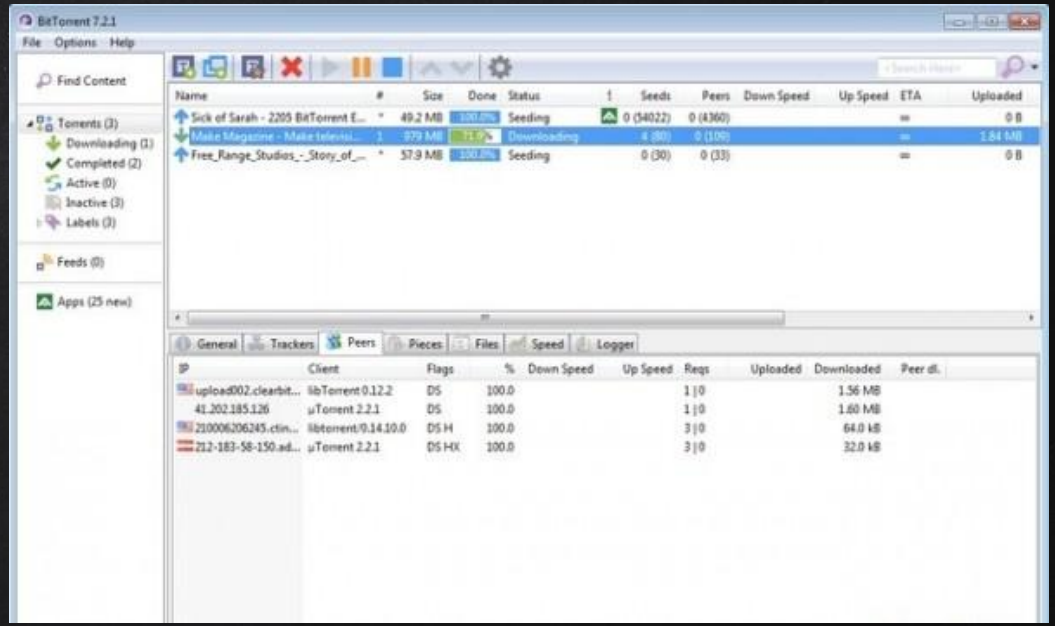
Objectives

- ✘ Know how the p2p network architecture
- ✘ Apply it into a simple file transferring application
- ✘ Chatting and Discussing
- ✘ Use for education purposes

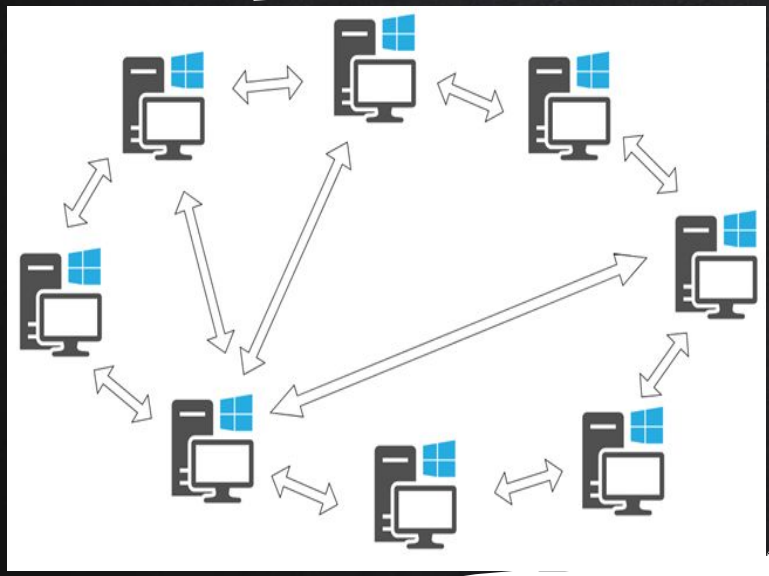
3 Existing System

Peer to peer networks

- Bittorrent
- Utorrent



4 Method

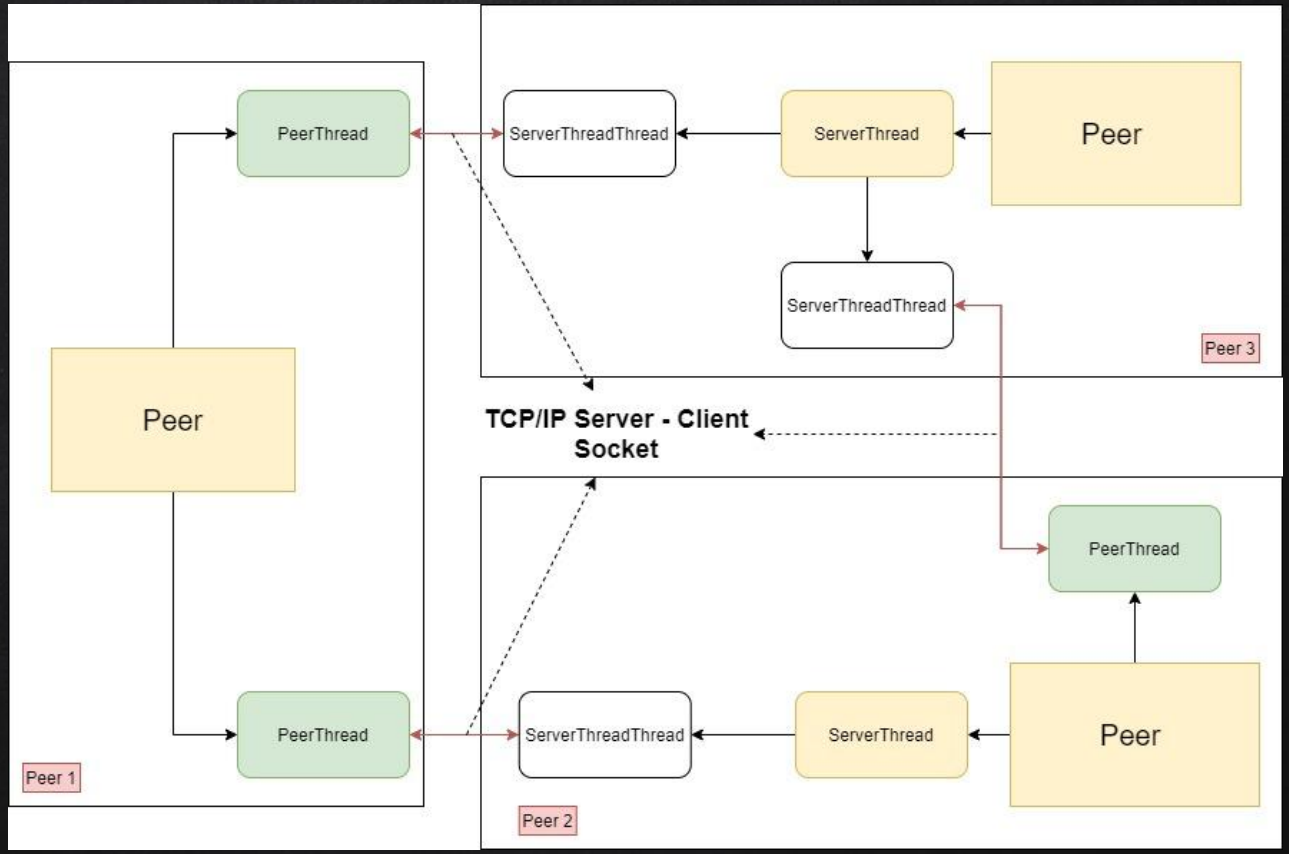


System Architecture Advantage:

Each peer can be a server for another

Connection Example

4



Method

✘ Peer ✘ PeerThread ✘ ServerThread ✘ ServerThreadThread

```
public class Peer {

    public static void main(String[] args) throws Exception {
        // TODO Auto-generated method stub
        BufferedReader bufferedReader = new BufferedReader(new InputStreamReader(System.in));
        System.out.println("Enter username and port for this peer: (ex: Calar 101)");
        String[] setupValues = bufferedReader.readLine().split(" ");
        ServerThread serverThread = new ServerThread(setupValues[1]);
        serverThread.start();
        new Peer().updateListentoPeers(bufferedReader, setupValues[0], serverThread);
    }
```

How do we implement our system ?

Method

- ✘ Peer
- ✘ PeerThread
- ✘ ServerThread
- ✘ ServerThreadThread

```
public class PeerThread extends Thread{
    private BufferedReader bufferedReader;
    private FileOutputStream fos;
    private BufferedOutputStream bos;
    private InputStream is;
    private String status = "chat";
    public PeerThread(Socket socket) throws IOException {
        this.is = socket.getInputStream();
        bufferedReader = new BufferedReader(new InputStreamReader(is));
    }
```

How do we implement our system ?

Method

- ✘ Peer
- ✘ PeerThread
- ✘ ServerThread
- ✘ ServerThreadThread

```
public class ServerThread extends Thread {
    private ServerSocket serverSocket;
    private Set< ServerThreadThreads > serverThreadThreads = new HashSet< ServerThreadThreads >();
    public ServerThread(String portNumb) throws IOException {
        serverSocket = new ServerSocket(Integer.valueOf(portNumb));
    }
```

How do we implement our system ?

Method

- ✗ Peer
- ✗ PeerThread
- ✗ ServerThread
- ✗ ServerThreadThread

```
public class ServerThreadThreads extends Thread{
    private ServerThread serverThread;
    private Socket socket;
    private PrintWriter printWriter;
    private String filePath = null;
    public ServerThreadThreads(Socket socket, ServerThread serverThread) {
        this.serverThread = serverThread;
        this.socket = socket;
    }
```

How do we implement our system ?

5 Evaluation

	Avg. 1st Msg Response Time	Avg. 2st Msg Response Time	Avg. 3st Msg Response Time	Avg. 4st Msg Response Time	Avg. 5st Msg Response Time
Case 1	467.1 ms	5.5 ms	4.6 ms	6.55 ms	4.64 ms
Case 2	108.3 ms	2 ms	3.67 ms	2.67 ms	2.33 ms
Case 3	35 ms	3 ms	1 ms	1 ms	1 ms

Demo!


Thank you
For listening.