**ABSTRACT**

According to a measurement individual spends more than 162 minutes on cell phones every day. Using Ensemble mobile devices such as smart phones, laptops and any other embedded devices for personal entertainment is fashion now days. All these devices are equipped with technologies such as Wireless Fidelity (Wi-Fi), Bluetooth, etc. The use of Peer-to-Peer (P2P) protocols and its applications is becoming popular over these mobile devices which allow wide number of clients to share their own content such as audio, data, video, etc. Moreover Besides individuals can impart documents by passing it to one another. However such content sharing faces several challenges such as limited bandwidth and communication range. This paper fundamentally talks about the investigation of P2P offering on ensemble mobile devices utilizing either of the technologies. It also discusses the challenges and problems regarding the range and bandwidth while sharing contents.

**1. INTRODUCTION**

Years ago, P2P correspondences have gotten to be standard basic architecture in the wired network environment. Then again, they have not been suitably changed in accordance with the portable environment that made out of diverse contraptions, for example, smart phones, tablets, laptops and other embedded devices. In P2P systems, every node can act as a customer or as a server in the same time and shares with others its own particular content. They have become exceptionally competent multimedia devices, with embedded video cameras, and many users appreciate sharing the multimedia content that they capture. For example, as an aspect of a home-theater system, the user may wish to transfer files, for example, newly-taken content to another tablet, to a media player connected with a TV, or to a digital photo frame. Few clients may show their interest in automatically receiving multimedia from one specific source.

Users are normally subject to wireless data plans with restricted utilization points of confinement and steep overage charges. The alternative of transferring or uploading files through a wired USB connection is massive and delays the user experience. A promising plan is to use P2P among smart mobile phones; keeping in mind the end goal to devour free distributed wireless connections versus costly packet data for purpose of file sharing. Through P2P integration, the partaking devices could then allow the multimedia assets back and forth without the utilization of any intermediate hosts, and not be liable to over charging.

**2. TECHNOLOGIES**

**2.1. BLUETOOTH TECHNOLOGY**

Bluetooth is a current industry standard for short-range wireless connectivity [1]. The Bluetooth Special Interest Group (SIG) oversees Bluetooth. Bluetooth is a development that allows contraption to confer and offer data over short ranges without wires. It is an exclusive open wireless innovation standard for trading information from cell phones, creating personal area network (PANs) with high level of security [7]. Bluetooth innovation is broadly utilized for short-ranged wireless information exchange, similar to printers, scanners or digital cameras. It works productively inside the scope of 20-25 feet without any WLAN devices. It is primarily design for a low power consumption and low cost. Gadgets, for example, cellular telephones, portable PCs, PCs, printers, tablets, digital cameras, and video games can connect with one another, and exchange data. Bluetooth is utilized for moderately short range say couple of meters. It has some limitations over Wi-Fi. It can at max transfer 3 megabits per second.

**2.2. WI-FI TECHNOLOGY**

Invention of Wi-Fi technology brings a distinct option for wired technology, which is usually used for connecting devices wirelessly. Wi-Fi (Wireless Fidelity) is a non-specific term that refers to IEEE 802.11 communication benchmarks for Wireless Local Area Networks (WLAN). It uses radio waves to get and transmit information at relatively high speed [7].

It is the advancement that allows an electronic devices to exchange information wirelessly (using radio waves) over a Personal Computer (PC) system, including rapid Internet connections. Wi-Fi furnishes its users with the opportunity of interfacing with the web from wherever inside Wi-Fi domain without any connections with wires. Wi-Fi range where the users can join with the wireless system is known as a Wi-Fi hotspot. Through the Wi-Fi hotspot, the customers can even overhaul their home business, as getting to information through Wi-Fi is straightforward. It is cost free to get information through wireless hotspot. It has several advantages over Bluetooth compare to speed and bandwidth.

**3. PEER TO PEER TECHNOLOGY**

P2P file sharing got to be well known in 1999 with the introduction of Napster, a document offering application and an arrangement of central servers that connected individuals who had documents with the individuals who asked for it [2]. P2P file sharing technology has been in consistent advancement in the course of recent years.

A P2P PC system is one in which each PC in system can go as a client or server for different PCs in the system, allowing conferred access to different resources such as, reports, documents, peripherals and sensors without the necessity for a server [2]. P2P system can be set up inside the business, a home, or over the Internet. Each system obliges all PCs in the network to use comparable or a perfect project to unite with each other to access records and different resources that can be found on another PC. P2P networks can be utilized for sharing files, for instance, video, sound, feature, data, or anything, which is advanced or digital. P2P is a coursed application architecture that fragments workloads among partners. Peers are generally as favored as members in the application. Each PC in a network is referred to as center point or node. The proprietor of each PC on a P2P network will keep a part of its resources ready, for example, processing power, disk storage, or network bandwidth to be made straightforwardly accessible to other system member, without the prerequisite for central servers or hosts. With this, peers are both suppliers and customers of resources, in contrast with the conventional client-server model where the server simply sends, and client just receives.

**4. P2P ADVANTAGES AND LIMITATIONS**

One of the real favorable circumstances to a P2P network is that every time another hub is associated with a network the aggregate limit of the framework increases. This point contrasts client server model since it slows down data transfers for all of the connected users. Another playing point as to immaculate P2P network is that there is not even a single chance of failure in the network. In the event that one hub comes up short than whatever remains of the hubs have the capacity to continue relying information. There is no requirement for full-time System Administrator. Each client is the administrator of his machine. Shared resources. The general expense of building and keeping up this sort of network is similarly less.

On the other hand it has some shortcomings and one of in P2P network is that of security. Security is sufficiently hard in conventional networks that rely on upon central servers. It's harder still in P2P network, especially when you need to validate your correspondence partners and exchange information just with one you trust. Another disadvantages of P2P network is the high band use needed. Data recovery or backup is exceptionally troublesome. Every PC should have its own back-up system. Films, music and other copyrighted records are exchanged utilizing this kind of file exchange. P2P is the technology utilized in torrents.

**5. CONCLUSION**

Most of the individuals see Bluetooth or Wi-Fi as link substitution and also a connection between a handheld gadget and a hotspot that is associated with nearby network or the Internet. Regardless they have their own limitations. In this paper we have talked about what the P2P networks are, what they use for and what are their advantages over other networks. P2P networks are good to associate small number (around 10) of PC and spots where high level of security is not needed. If there should be an occurrence of business network where delicate information can be introduce this kind of architecture is not advisable or favored [4].

**6. REFERENCES**

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