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Bluetooth Vs. SHAREit: A Comparative Study and Student Preference of use

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Abstract *– Recently, Smartphone users have frequent need for share files and data such as (applications, audio, video, images even contacts) with other Smartphone users having same type of compatible device on the go, there are various free and paid file sharing applications available in the market for this very purpose, these file sharing applications mainly use WLAN (Wi-Fi Hotspot) for sharing files by creating an Ad-hoc wireless network and share files with other users within their vicinity. This research conducted a comparative study between Bluetooth and SHAREit. The researchers tested to transfer different file sizes, and based from the experiment, SHAREit is faster, stable and not prone to lags and transfer interruptions. One hundred seventy nine (179) BS Computer Science students of Pangasinan State University-Lingayen Campus was also asked to determine their preferences between Bluetooth and SHAREDit, and based on the result, eight (8) students preferred to use Bluetooth, and one hundred seventy one (171) students preferred to use SHAREit.*

Keywords *–Bluetooth, SHAREit, Smartphone, Technology, WiFi*

INTRODUCTION

Background of the Study

File sharing is transferring or sharing the digital data such as image, audio, video, document etc. stored on an electronic device (mobile, laptop etc.) with similar compatible electronic devices. Nowadays, file sharing is mostly done through wireless medium. Earlier, sharing of files or data between different electronic devices such as mobile phones, laptop, etc. were done using traditional modes based on IR (Infrared Waves) or Bluetooth, but file sharing using IR and Bluetooth connectivity were time consuming because of their slow data transfer rate. As technology advancement took place users need these things like sharing files to be less time consuming with faster data transfer rate, the faster data transfer rate have been achieved through the use of wireless mediu m using WLAN.

Wireless communication is now a common phenomenon. Many of us have WiFi internet connections in our offices and homes. But Bluetooth devices communicate directly with each other, rather than sending traffic through an in-between device such as a wireless router. This makes life very convenient and keeps power use extremely low, improving battery life.

Transferring of files through wired and wireless is one of the key for the user to have a copy of the files needed for their own use. Nowadays, many file transfer applications for Android and iOS can be install for free and use to transfer files easily through WiFi instead of using Bluetooth transfer which 2 times slower than WiFi file transfer.

Sending files to other by e-mail or other instance messengers is fine. But if someone is right next to you, sharing information in this way seems too complex and ineffective with so many steps as well as the low transfer speed. Now, you can quickly and easily share photos, videos, contacts and more by tapping the share button with Bluetooth and SHAREit.

Bluetooth technology allows devices to communicate with each other without cables or wires. Bluetooth relies on short-range radio frequency, and any device that incorporates the technology can communicate as long as it is within the required distance.

SHAREit is a peer to peer file sharing, content streaming and gaming platform that supports online and offline sharing of files and contents. It allows users access to short format videos and a wide range of

games making it a multimedia entertainment app for users. It works on various smartphone platforms allowing users to share files between devices directly.

Bluetooth vs SHAREit:

Share It app uses WiFi hotspot method of sharing. In WiFi Direct, the two devices connect to each other in a peer to peer network. It's like an exclusive connection between the two. But in hotspot, many devices can connect to the hotspot created by the sender or receiver device. Not really an exclusive connection.

And in hotspot method, the maximum link speed is 65Mb/s which is 8MB/s (note. B - Byte. b - bit) and link speed changes based on WiFi signal strength. If Share It app is able to use maximum bandwidth, then it can send at a speed of about 8 MB/s. Of course it is faster than Bluetooth.

Bluetooth beats WiFi Direct when it comes to power consumption which is a big deal for mobile portable devices with small batteries. Bluetooth Low-energy consumes as low as 0.01 Watts of power while WiFi can take as much as 20 Watts.

OBJECTIVES OF THE STUDY

The objectives of the study were discussed in the following statements:

1. To determine the transfer rate between Bluetooth and SHAREit; and
2. To determine the preference of the BS Computer Science students between Bluetooth and SHAREit.

MATERIALS AND METHODS

The researchers used the experimental approach to distinguish the transfer rate between Bluetooth and SHAREit. Descriptive-survey was used to determine the preference of the BS Computer Science students between Bluetooth and SHAREit.

The researchers float the survey questionnaire to the one hundred seventy nine (179) BS Computer Science students of Pangasinan State University, Lingayen Campus to determine their preference between Bluetooth and SHAREit for sharing and transferring files.

RESULTS AND DISCUSSION

1. Transfer rate between Bluetooth and SHAREit.

Table 1. Transfer rate between Bluetooth and SHAREit

Attempt	File Size	Duration	
		Bluetooth	**SHAREit**
1st	39.4mb pdf file	6 mins. 15 secs.	7 seconds
2nd	505mb zip file	26 mins. 28 secs.	46 seconds
3rd	739mb video file	38 mins. 4 secs.	1 min. 2 secs.

The table represents the transfer rate of bluetooth and SHAREit. The researchers tested to transfer different file sizes. Based from the experiment, SHAREit is faster, stable and not prone to lags and transfer interruptions.

2. Preference of the BS Computer Science students between Bluetooth and SHAREit.

Based on the result, eight (8) students preferred to use Bluetooth, and one hundred seventy one (171) students preferred to use SHAREit. Most students prefer SHAREit to be the fastest way to transfer photos, videos, documents, and even mobile apps to other smartphones.

CONCLUSION

Based on the conducted experiment, SHAREit is way faster than Bluetooth for transferring files. Ever since Bluetooth technology came into existence, the attraction with file-sharing has taken over the world. Bluetooth has marked its stamp on the new era of wireless connectivity and achieved unbelievable success with its capacity to share various types of multimedia files. Bluetooth's features are still carried over in every mobile phone regardless of any other competition in the field of file-sharing. Every mobile manufacturer out there still adds Bluetooth function, and that is the definition of brand value. But, there seems to be a software app in the market that has taken over the file sharing industry. Since its inception, the days of the long-trusted Bluetooth were over, and the app SHAREit has made its stand.

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