

## Wi-Fi File Sharing Through Voice Command

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### ABSTRACT

Wi-Fi is a local area wireless technology that allows an electronic device to participate in computer networking using 2.4 GHz and 5 GHz ISM radio bands. Wi-Fi technology may be used to provide Internet access to devices that are within the range of a wireless network that is connected to the Internet. The coverage of one or more interconnected access points (hotspots) can extend from an area as small as a few rooms to as large as many square kilometers. The Wi-Fi Alliance enforces the use of the Wi-Fi brand to technologies based on the IEEE 802.11 standards from the IEEE. In this paper we are further going to discuss about how to share files through Wi-Fi by using voice commands.

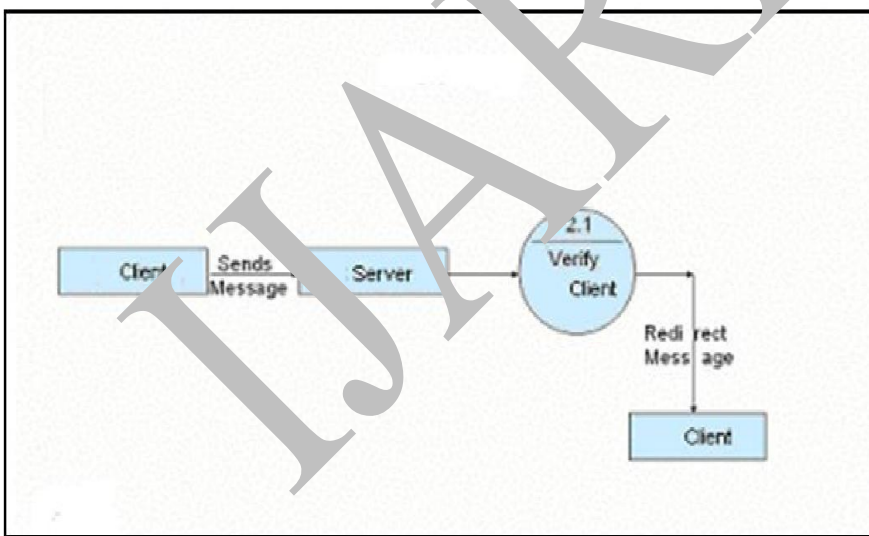
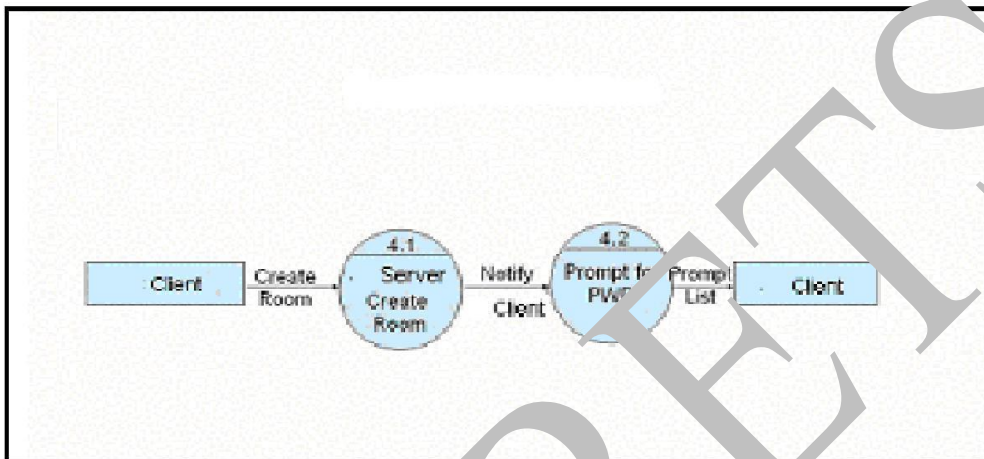
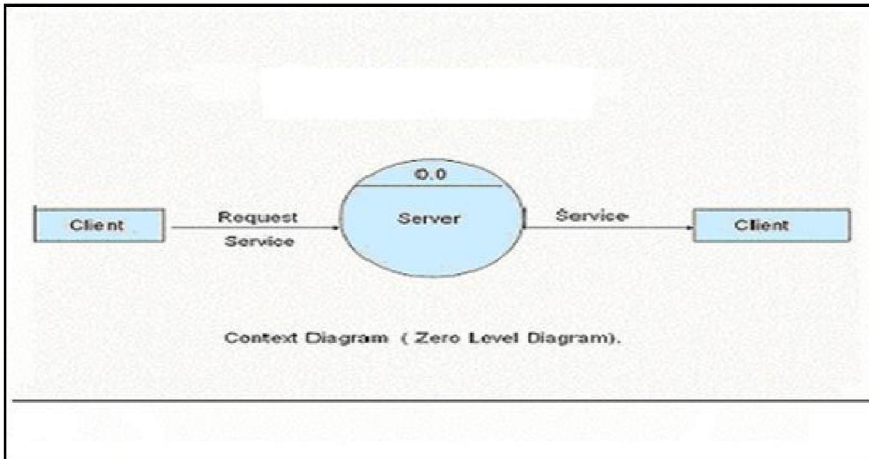
**Keywords:** Wi-Fi File Sharing, Voice Command, Client-Server Architecture, Speech Recognition, Observation Vectors, Spectral Shaping, Finite Impulse Response.

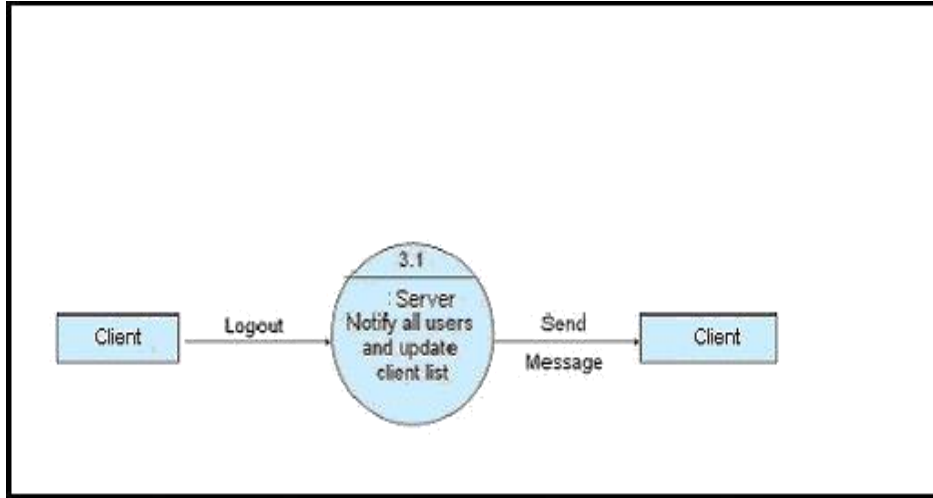
### INTRODUCTION

Imagine sending file from one computer to another computer without using keyboard and mouse. This can be possible through voice commands. By sharing files through voice commands we can save a lot of time and this requires less manual work. In this paper we will try to discuss how share files through Wi-Fi with the help of voice commands. The application consists of two parts, a server and client. The server accepts the incoming connections and shares files. The client allows the user to search for available servers and connect. Files and folders can then be transferred between client and server applications.

### PLAN

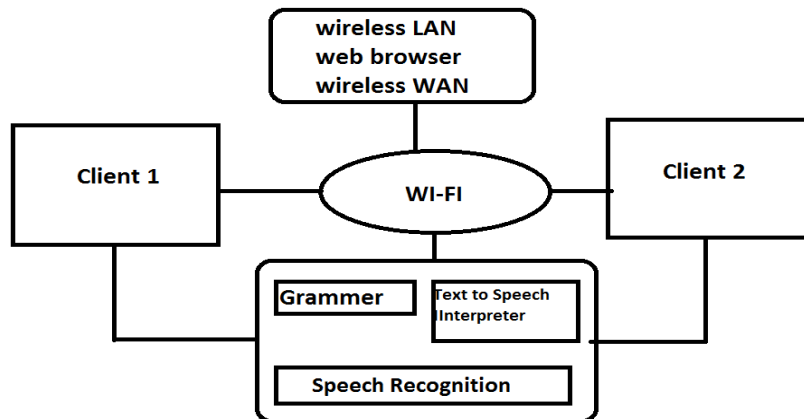
The main objective of this paper is to perform the Wi-Fi sharing application. The application should implement the file transfer profile. The profile specifies client server type of application. The server makes it available to other devices, accepts incoming connection and allows basic file transfer operation. The client should find the server, make a connection and allow pushing or pulling file on the server through voice.





**ALGORITHMS**

We will use speech recognition algorithms. The speech-recognition algorithm contains two fundamentals parts, which are the acoustic front end and the search algorithm. In this, the speech observations represent fixed time duration (i.e. a frame). The states are not directly observable. Hidden-Markov models (HMMs) are popular statistical models used to implement speech-recognition technologies. The purpose of speech-recognition algorithm is to make a observation sequence O and compute which words are most likely to have produced this particular set of observation vectors. If the observation sequence is known to represent only a single word from a limited set of possible words, the task is to compute  $\max p(i)$  which is the probability of word i, given the observation vector O. The models can be compared to that score for each word model, and the model with the highest score can be chosen.



## ACOUSTIC FRONT END

The acoustic front end is the process of converting sequences of raw-speech data to observation vectors, which represent events existing in a probability space. The first stage in the process converts speech to a digital representation by sampling speech. Spectral shaping is performed to allow the more important frequency components to be emphasized in the speech signal by using a finite impulse response (FIR) filter.



## SEARCH ALGORITHM

The search algorithm finds the most probable sequence of events while operating under a set of syntactic constraints. It begins in a designated initial state. In each discrete time-interval step, this transition is taken to a new. One output symbol is generated in each state, and the user has a choice between the new transition or the symbol selected for that state.

## ADVANTAGES

1. The system is interactive and friendly.
2. Manual work is reduced.
3. Less time consumed

## SECURITY

This project does not focus on security issues in Wi-Fi but to create a working file share application. Since devices sometimes have trouble connecting using the security methods, Wi-Fi File Share does not use any of them.

## ADDITIONAL FEATURES

When a file requested by a client is not present with the server then we provide server with the capability to access internet and download that particular file and then send it to the client. With the help of the internet all the related searched files are shown on the screen and the client is asked if he likes the result or not.

## CONCLUSIONS

Wi-Fi File Share is an application that supports simultaneous communication between several PC's using Wi-Fi. The goal of this thesis work was to create an application that supports file exchange between computers through voice commands. To be able to do this for free, Wi-Fi was the most effective technology to use. In the application the user is given the possibility to share only the files he/she desires and also the possibility to search for different files types, from internet such as music, pictures or text files. This project has given valuable experience about both DOT NET and Wi-Fi.

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