SMS Jukebox

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Abstract- *A system for taking part in audio and/or video tracks on a jukebox pc in response to requests transmitted by users, said users having mobile telecommunication devices capable of communication with a server over a wireless communications network, said jukebox additionally being capable of communication with said server over the wireless communications network, the jukebox pc providing a predetermined plurality of tracks, information relating to said plurality of tracks being stored on the server, wherein the users select said tracks by communicating with the server, the server transmitting the user's request to the jukebox computer over the wireless communications network such as SMS.*

Keywords- *GSM, SMS, ATD (Dial), ATA (Answer), ATH (Hook control) and ATO (Return to online data state)*

1. INTRODUCTION

According to the proposed work there is provided a system for playing audio and/or video tracks on a jukebox computer in response to requests transmitted by users, said users having mobile telecommunication devices capable of communication with a server over a wireless communications network, said juke- box also being capable of communication with said server over the wireless communications network, the jukebox computer providing a predetermined plurality of tracks, information relating to said plurality of tracks being stored on the server, wherein the users select said tracks by communicating with the server, the server transmitting the user's request to the jukebox computer over the wireless communications network.

The system comprises a jukebox computer connected to speakers and or some form of monitor. The monitors may be television screens, plasma or LCD dis- plays, projectors or other suitable display devices. The computer is connected via a mobile telephone data connection to a server. The server is located re- mote from the jukebox. It will be appreciated that many jukebox computers may be connected to a single server. The jukebox computer receives tracks via the mobile data connection from the server and the jukebox computer stores these tracks on a suitable storage device located therein, such as a hard disc drive.

FTP or File Transfer Protocol is a known system used to transfer data from one computer to another over the Internet, or through a network. Specifically, FTP is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet). Typically there are two computers involved in an FTP transfer, a server and a client, which in this embodiment of the invention are the server and a jukebox computer respectively. The FTP server, running FTP server software, listens on the network for connection requests from jukebox computer. The jukebox computer, running FTP client software, initiates a connection to the server. Once connected, the client can do a number of file manipulation operations such as uploading files to the server, download files from the server 2, rename or delete files on the server etc.

2. LITERATURE SURVEY

A jukebox is a machine in a public place, which allows customers to select tracks of audio, video or other content, which are then played in that venue. Traditionally the tracks are selected by manually keying in a code relating to a given track. Typically these numbers are printed on cards displayed in the jukebox. The music is stored on vinyl record or CD and an appropriate playing device is included in the jukebox. The jukebox may or may not be coin operated, or sometimes credit or debit card operated, but the selection of a track need not be dependent on income.

In recent years there has been a tendency to replace such jukeboxes with digital jukeboxes. In these digital systems, the CD or record is replaced by a storage device such as a hard drive containing the music in a digital form. When replacing the physical player described above with a software player, the code cards are typically replaced by a touch-screen and the code with an image of the artist or a text file. Such a digital jukebox offers new opportunities to search for a track, as in a digital form the track can be described in an associated metadata file and then displayed using and according to that metadata. For example a track may be described in its metadata as A Million Sellers of the 80's, a Number One Of The 80's, a Male Star Of The 80's, a Soul Track, a Slow Track110 bpm and when searching for this track on the juke- box, this information can appear in every one of its metadata descriptions. A digital jukebox may also contain a great many more tracks than CD or Record jukeboxes because those tracks are either stored on a hard-drive or streamed as requested via broadband and played. The number of tracks that can be accessed via a digital jukebox is now only limited by the number of tracks that have ever been recorded.

3. PROPOSED SYSTEM

There are known arrangements in which radio listeners or television viewers can use telephones to call specified numbers to vote for a preferred track from a short list of tracks. Tracks achieving the highest number of votes will be played. However, such systems are not jukeboxes. For example, they rely upon a voting arrangement and individual users have no guarantee that a requested track will be played. Tracks are only played during the course of a particular programmed, and frequently will be played only once during that programmed. Using a jukebox in a bar or other public place, a popular track may be played on a number of occasions during the course of a day in accordance with requests made at various times.

3.1 ARCHITECTURAL DESIGN

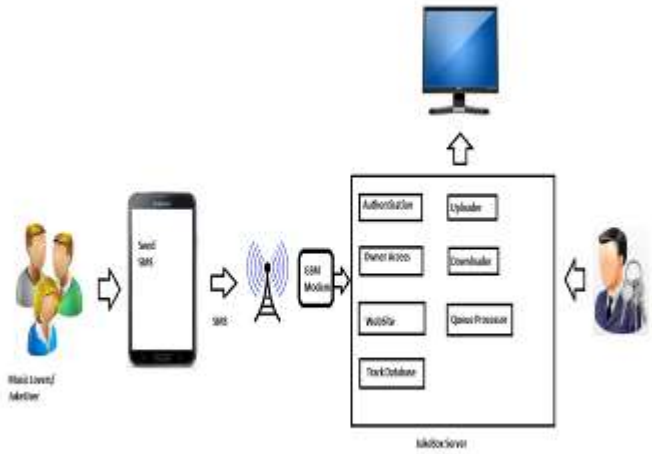

Fig 1: Architecture diagram

On Master Side: We need to provide a rich GUI using which composers can re- quest for melody. This GUI will be created using Java Swing technology. User will be providing input via this GUI. On Client Side, we will be using android app to view/search/select any track

GSM modem

A GSM modem is a wireless modem that works with a GSM wireless network. A wireless modem behaves like a dial-up modem. The main difference between them is that a dial-up modem sends and receives data through a fixed telephone line while a wireless modem sends and receives data through radio waves.

A GSM modem can be an external device or a PC Card / PCMCIA Card. Typically, an external GSM modem is connected to a computer through a serial cable or a USB cable. A GSM modem in the form of a PC Card / PCMCIA Card is designed for use with a laptop computer. It should be inserted into one of the PC Card / PCMCIA Card slots of a laptop computer.

Like a GSM mobile phone, a GSM modem requires a SIM card from a wireless carrier in order to operate. As mentioned in earlier sections of this SMS tutorial, computers use AT commands to control modems. Both GSM modems and dial-up modems support a common set of standard AT commands. You can use a GSM modem just like a dial-up modem.

In addition to the standard AT commands, GSM modems support an extended set of AT commands. These extended AT commands are defined in the GSM standards. With the extended AT commands, you can do things like:

Reading, writing and deleting SMS messages. Sending SMS messages.Monitoring the signal strength.Monitoring the charging status and charge level of the battery. Reading, writing and searching phone book entries. AT commands are instructions used to control a modem. AT is the abbreviation of ATtention. Every command line starts with ”AT” or ”at”. That’s why modem commands are called AT commands. Many of the commands that are used to control wired dial-up modems, such as ATD (Dial), ATA (Answer), ATH (Hook control) and ATO (Return to online data state), are also supported by GSM/GPRS modems and mobile phones. Besides this common AT command set, GSM/GPRS modems and mobile phones support an AT command set that is specific to the GSM technology, which includes SMS-related commands like AT+CMGS (Send SMS message), AT+CMSS (Send SMS message from storage), AT+CMGL (List SMS messages) and AT+CMGR (Read SMS messages).

Note that the starting ”AT” is the prefix that informs the modem about the start of a command line. It is not part of the AT command name. For example, D is the actual AT command name in ATD and +CMGS is the actual AT command name in AT+CMGS. However, some books and web sites use them interchangeably as the name of an AT command.

4. RESULTS

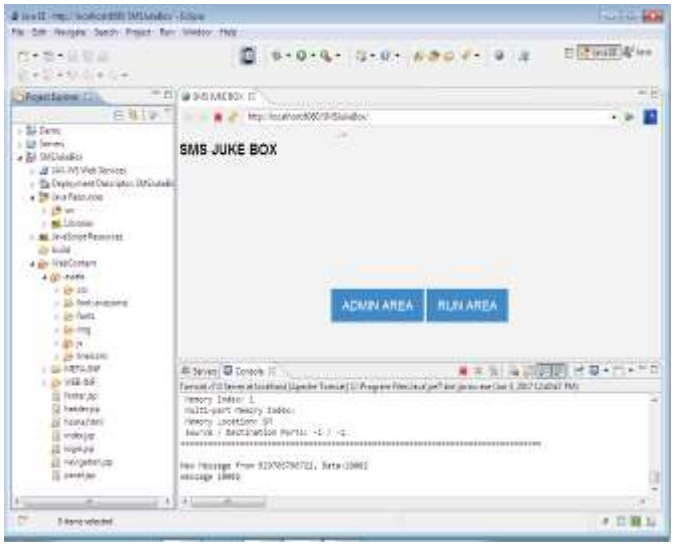

Fig 2: Home Page

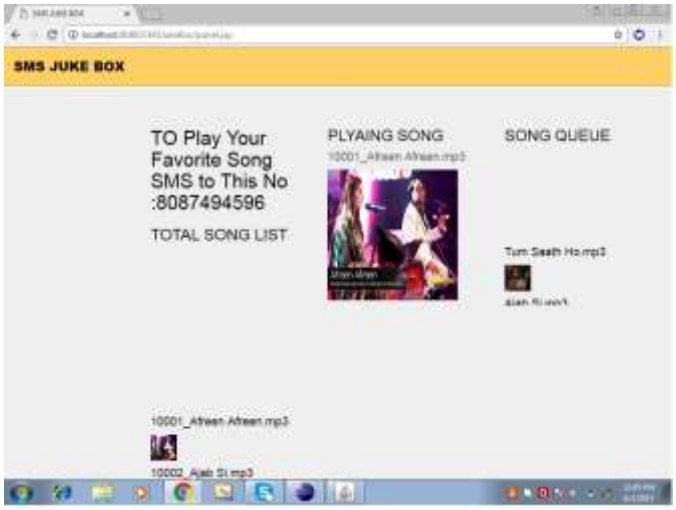

Fig 3: Run Area

Fig 4: Hardware Configuration

5. CONCLISION

Two models for providing end-to-end security for SMS on GSM networks are presented. The presented models use identity-based encryption for key establishment, which is a novel utility of this technique. The C&A model provides end-to- end congeniality, message integrity and authentication while the CAN model provides non-repudiation in addition to these security services. The proposed models are suitable to meet the security needs of SMS applications used by government authorities, military, private companies, banks, police, mobile operators and even individuals for secure communication.

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