Abstract

Voice over Internet Protocol (VoIP) is a standard for taking analogue audio signals, and turning them into digital data that can be transmitted over a network. VoIP has become an important factor in network communication. It has a lower operational cost, greater flexibility, and a variety of enhanced applications. VoIP is time-based. To ensure real-time transmission, Real-Time Transmission Protocol (RTP) is used on top of User Datagram Protocol (UDP). RTP provides end-to-end network transport functions suitable for applications transmitting real-time data, such as audio, video or simulation data, over multicast or unicast network services. Java Media Framework (JMF) is an Application Programming Interface (API) that uses RTP and therefore ideal for time-based media. Thus, the topic: leveraging VOIP on LAN using Java Media Framework. The research aims at designing a system that will allow users to communicate over a data network. That is to be able to send text, make voice and video call, and transfer file over a network. The system uses client/server architecture. The architecture is a 3-tier: the client, the main server and the database server. The system designed could be used on Android mobile phones and computers with Windows operating system. The outcome of the research will allow users to communicate at virtually no cost. The product will also put
the network of various organizations into full utilization.

References

- DeveloperWorks, Java sockets 101:ibm.com/developerWorks
- http://docs.oracle.com/javase/tutorial/sound/index.html Accessed 20/05/11 8:30 am
- http://help.yahoo.com/tutorials/ms8/mess/im_setup1.html Accessed 9/7/12 8:40 pm
- http://voip.about.com/od/voipbasics/a/ReasonsForVoIP.htm. Accessed 20/05/11 8:20 am
Keywords
VOIP  Java Media Framework  Public Switched Telephone Network (PSTN)  User Datagram Protocol (UDP)
Real-Time Transmission Protocol (RTP)
Application Programming Interface (APIs).