**Abstract**

**Project Domain:** Computer & IT

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**Project Title:** Multimedia transcoding over network

In our daily lives large amount of people use multimedia gadgets and huge amount of multimedia contents are being served online now. But, any multimedia devices can not support playing all the types of multimedia formats available online. So, to overcome this problem we have proposed a solution in this project. The exact problem here is that, any user having multimedia device should be able to play any kind of multimedia files available over (any kind of) network. So, our solution lies on some middle node (i.e. usually gateway) and acts as middle ware between user’s device and multimedia server. So, first multimedia capabilities of user’s device i.e. a device from which the request for multimedia contents will be made are need to be detected. Then, from that detected information, different formats supported by devices are evaluated. When reply to the request made by user’s device is received, that reply is received as a continuous stream (as it is over the network) of multimedia data. This multimedia data is transcoded ‘on the fly’ i.e. as data is being received, at the same time it is being transcoded too, and in our case it is being streamed back to the user’s device simultaneously too. So receiving stream, transcoding stream (as per user’s device and multimedia server formats) and streaming transcoded data to user’s device are simultaneous. As a result, any multimedia device will be able to play any kind of multimedia format available online. The solution proposed is very practical to be deployed. And can be easily expanded for any new devices and multimedia formats become available in future.

**Fields related:** Networking, Multimedia, Operating Systems, and Web.

**Technologies used:** C/C++, MySQL, gstreamer-0.10, lighttpd-1.4.28, Ubuntu.