



Research Article



Embedded Computing: Partitioning the Software between Clients and Servers

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DOI:

[http://dx.doi.org/
10.17812/IJRA.1.2\(8\)2014](http://dx.doi.org/10.17812/IJRA.1.2(8)2014)

Manuscript:

Received: 23rd April, 2014

Accepted: 15th May, 2014

Published: 29th May, 2014

ABSTRACT

The energy efficiency of mobile applications has been a highly tackled research problem within the last years.

Many research groups have focused on optimizing the hardware of mobile devices, as well as their middleware and applications, increasing both the devices' uptime and their users' satisfaction. However, only scare work has analyzed to partition the application between client and server. In this paper, we focus on social games which are played by several players connected to a server via their mobile devices. Current state of the art is to keep everything on servers and synchronize the state across all clients which makes real-time media oriented computation can perform poorly on servers due to varying loads, and can result in interruptions in execution. Due to lots of jobs, sometimes the computation does not scale with number of users on servers. Thus in this paper, we propose to partition the application between embedded device and server using Android for performance benefit and energy saving.

Keywords: Energy efficiency, embedded devices, Server, Social-games, Android, Partitioning.

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IJRA - Year of 2014 Transactions:

Month: April - June

Volume – 1, Issue – 2, Page No's: 40 - 43

Subject Stream: Computers

Paper Communication: Author Direct

Paper Reference Id: IJRA-2014: 1(2)40-43