

# AirPhone: Cloud Generation Smartphones

Hadalau, Uladzislau (School: Miami Lakes Educational Center)

Today smartphones cannot match the capabilities of a personal computer. Also, the time of their use is limited to 1-2 days without recharging, and the cost in most cases is equal to the cost of a good laptop. To solve these problems I created AirPhone. The smartphone that can do everything while doing nothing. The concept of creating AirPhone is based on Cloud Computing technologies. AirPhone puts all highly loaded tasks on virtual machines of the nearest remote server and just gets a picture and sound using the remote control protocol AirPhone RCP. This protocol has a number of my own algorithms for streaming images that even allow playing video in 3G network. I fully optimized the client part of the protocol for SoC used in AirPhone. The smartphone runs my own AirPhone OS based on Android which includes, among other components, a capability to use the smartphone as a PC system unit, an authorization system via voice call from a robot, and an application store allowing users to install applications into any remote operating system in a silent mode. AirPhone is a completely new concept of the smartphone. It performs almost all tasks, including running computer games, using remote computing power, thus reducing energy consumption and cost. Due to low energy consumption and a powerful 3500 mAh battery, AirPhone works in 2-3 times longer than a usual smartphone. I believe AirPhone is a smartphone of the future, so I plan to start testing the device soon in some countries.

## **Awards Won:**

Third Award of \$1,000

Oracle Academy: Award of \$5,000 for outstanding project in the systems software category.