

Finnish researchers reduce smart phones power consumption by more than 70 percent

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Image credit: Aalto University

Researchers at Aalto University in Finland have designed a network proxy that can cut the power consumption of 3G smart phones up to 74 percent.

This device enhances performance and significantly reduces power usage by serving as a middleman for mobile devices to connect to the

Internet and handling the majority of the data transfer for the smart phone. Historically, the high [energy requirements](#) of mobile phones have slowed the adoption of mobile Internet services in developing countries.

"This new solution is particularly valuable in developing countries because it provides significantly more effective Internet access to a much larger number of people. At the moment, only a small percent can access the Internet from a wired connection, but 90 percent of the African population lives in areas with [mobile phone network](#) coverage. [Mobile phone usage](#) is increasing rapidly, however the use of mobile Internet services is hindered by users not having access to the power grid to recharge their phones", says Professor Jukka Manner from Aalto University.



Image credit: Aalto University

The case study conducted at Aalto University examined Internet usage in three East African countries: Tanzania, Uganda and Kenya. Researchers developed energy-saving solutions for [smart phones](#) that could be easily deployed across a mobile network and in particular in areas without reliable sources of electricity. In addition to the new, optimized proxy solution, the researchers found that the [power consumption](#) of smart phones could also be significantly reduced by mobile optimized websites, HTTP compression and more efficient use of data caching.

The study is presented and published today at the scientific conference Africomm 2011.

Provided by Aalto University

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