Abstract: Battery Life Extension Method Using Selective Data Reception Algorithm and Packet Switching Function

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Abstract

We propose a battery life extension method using a SDRA (Selective Data Reception Algorithm) and PSF (Packet Switching Function) which operates on the application server for reducing the smartphone's battery consumption and providing the cloud service. In proposed method, the battery state information of a smartphone is transmitted to the corresponding application server with initial signaling and keep-alive signaling included in TCP packets. The application server determines whether the received data transmits to a smartphone considering the data types (e.g., video, image, text, etc.) and the battery state information of a smartphone. By using proposed method, the battery life of a smartphone can be extended by reducing the battery consumption which is caused due to receiving large data files on the smartphone. Also, the proposed method can provide the cloud services using PSF.

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