# SYSTEM AND METHOD FOR PROVIDING COMMUNICATION RULES BASED ON A STATUS ASSOCIATED WITH A BATTERY OF A DEVICE

## TECHNICAL FIELD

The disclosure relates to communication systems and, more particularly, to a system and method for providing communication rules based on a status associated with a battery of a device.

## BACKGROUND

The Narrowband Internet of Things ("NB-IoT") is a narrowband system developed for the cellular Internet of Things by the Third Generation Partnership Program ("3GPP"). The system is based on existing Long Term Evolution ("LTE") systems, and addresses improved network architecture and coverage for substantial number of devices with characteristics such as lower throughput (*e.g.*, two kilobits per second ("kbps")), lower delay sensitivity (*e.g.*, 10 seconds), lower cost (*e.g.*, below 5 dollars) and lower power consumption (*e.g.*, battery life of 10 years).

It is envisioned that each cell (about one square kilometer) in this system can serve thousands (*e.g.*, 50,000) of devices such as sensors, meters, actuators, and other devices. In order to make use of an existing spectrum such as Global System for Mobile Communications ("GSM"), a fairly narrow bandwidth (*e.g.*, 180 kilohertz ("kHz"), which may be similar to the LTE Physical Resource Block ("PRB")) has been adopted for NB-IoT technology. The entire (or a substantial amount of) NB-IoT traffic can be contained within 200 kHz or one physical resource block, which may be 12 subcarriers of 15 kHz each (in NB-IoT, this is referred to as one carrier or one PRB).

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ABSTRACT

A system and method for providing communication rules based on a status associated with a battery of a device such as a user equipment. In one embodiment, an apparatus (300, 600), and related method (1100, 1200), operative to communicate with a user equipment (200, 700) in a communication system (100) is configured to receive a status including a remaining charge associated with a battery (240) of the user equipment (200, 700). The apparatus (300, 600) is also configured to provide communication rules for the user equipment (200, 700) to manage a utilization of the battery (240) based on the status of the battery (240).