

Smart IoT End Devices Supervised By A Gateway Device and Secure Methods of Operation

Abstract

The present invention discloses smart IoT end devices (500, 502, 503, etc.) system (100) supervised by a smart gateway device (400) at a secure site and secure methods of operating the system. An AI module (204), connected to a server (200) in the system (100), polls a quality of service of a low-power wide-area network (LPWAN) (300), the smart gateway, the smart IoT devices communication links (200, LR, SR), cellular (10,20) and any available network (including an IoT (302) at the secure site) and selects an optimal security level of operation according to any one of access scenarios A-E; access scenario A is endowed with the highest security level, whilst access scenario E is for off-line emergency operation. In all scenarios of operations, the gateway and the smart IoT devices are monitored at the server (200) ensuring 24-hours 7-days a week supervision. (FIG. 1 for publication).