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(54) Title: SMART IOT END DEVICES SUPERVISED BY A GATEWAY DEVICE AND SECURE METHODS OF OPERATION

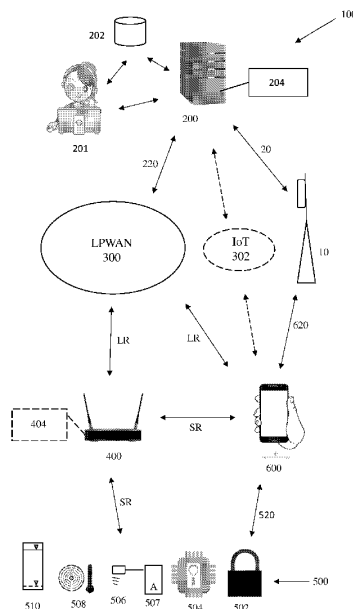


FIG. 1

(57) Abstract: The present invention discloses smart IoT end devices system, such as the smart locks, supervised by a smart gateway device at a secure site and secure methods of operating the system. An AI module, connected to a server in the system, determines a quality of service of communication links, such as a low-power wide-area network, the gateway, the IoT devices communications and cellular network. The AI module then selects an optimal security level of operation according to different access scenarios, ranging from highest security level to off-line emergency operation. The gateway and smart IoT devices are monitored at the server ensuring 24-hours 7-days a week continual supervision.

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