

Abstract

Communication method for IoT nodes or IoT devices in a local network

A method is provided for communication of IoT nodes (110) in a local network (100),
5 which is connected to the Internet (200) solely via a computer (130). The local network (100) has an Ethernet network or a single pair Ethernet network. The IoT node is designed display-free and operating-element-free and has a first interface for communication with other IoT nodes in the local network (120). Each IoT node has a first public key and a first private key. The first private key is stored in advance or generated by the IoT node itself. IoT nodes are authenticated by the process of transmitting a request for a root certificate to a root certificate server (210) by means of the computer, said root certificate server having at least one root certificate of the manufacturer of the IoT nodes, receiving and storing the root certificate, and using the received root certificate to check whether the IoT nodes are original and unmodified
10 devices. The root certificate (Z) links the first public key of the IoT nodes to unique address information of the IoT node that is valid exclusively in the local network. The computer uses the stored root certificate (Z) to check whether the public key of the IoT node is signed by the manufacturer of the IoT node. The first key is checked based on a cryptographic method.

20 (Fig. 1)