

ABSTRACT

AD-HOC AUTHENTICATED GROUP DISCOVERY

Techniques are provided for ad-hoc authenticated group discovery and data sharing in a mesh network. A group of devices is created without leaving a security gap due to the open communication needed to establish the discovery of the devices forming the group. The group can be authenticated autonomously following network discovery of the devices. Instead of requiring global pre-assigned keys for authentication, the devices in the group are authenticated with signatures and certificate passing thereby providing strong security. The efficiency of data sharing between the devices of the network, such as a mesh network, can also be increased. One or more devices may act as a bridge device between devices of a same group that are not in direct wireless communication with each other to reduce re-broadcasts within the mesh network.

FIG. 10