Abstract

In this paper, a comparative study of symmetric and asymmetric network for smart grid is proposed. In smart grid different nodes may be present with different capabilities, such as depending upon manufacturer, sensitivity of different nodes may changes. This significantly keeps impacts on the range of the parent node. Random nature of the infrastructure may changes the power capabilities to send the information to the parent node. This needs the power which is directly proportional to the physical distance between respective nodes. RPL (Routing Protocol for Low Power and Lossy Network) is proposed for the LLN (Low Power and Lossy Network) network which closely resemblance the infrastructure of smart grid. It's independent on the physical layer parameters and useful in the Cognitive Radio aspect. For symmetric nodes we compute the bidirectional links and node can directly communicate with its parent node without any extra overhead, however in asymmetric nature node needs to discover the multiple paths and may increase the overhead. In this paper we proposed different parameter which keeps significant impact on asymmetric network for smart grid.
Comparative Study of Symmetrical and Asymmetrical Network Parameters in Smart Grid Infrastructure

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Index Terms

Computer Science Wireless Networks

Keywords

Symmetric Network Asymmetric Network Smart Grid LIn Network (low Power And Lossy Network) Bidirectional Links