

A Mechanism for IoT Data Security and Privacy Through Fog Computing

C. Kaviyazhiny, P. Shanthi Bala, A. S. Gowri

Department of computer science, Pondicherry University

ABSTRACT

With the rapid usage of IoT (Internet of things) devices, a huge volume of data is generated. The generated data is sent to the cloud for the data processing and storing which is a critical task. There may be various security threats to handle during data transmission is the major challenge in all IoT applications. Hence, fog computing provides a solution to overcome such challenges. Fog nodes are placed on the edge of the IoT layer that provides security enhancement, reduces latency, accuracy, and consistency. To implement the features of fog computing, we proposed the framework by integrating IoT, Fog and cloud computing. The raw data from the IoT devices are pre-processed in the fog layer. The fog layer mainly focuses on data security and computation. With the help of storage optimization techniques, data from the fog layer is stored effectively in the cloud layer. The proposed work can considerably increase the efficiency of data storage and security in IoT.

