

# INCREASE IN EFFICIENCY THROUGH SDN-BASED ARCHITECTURE: AN EXPERIMENTAL STUDY ON IoT NETWORKS

---

Anto Jonith A<sup>a\*</sup>



I CSE A

Dr R.Vidhiya

Assistant Professor of English

KPR Institute of Engineering and Technology - Coimbatore

Mail Id: **vidhya.r@kpriet.ac.in**

22cs014@kpriet.ac.in

## Abstract

Scalable, energy-efficient and secure network architecture is required to accommodate a voluminous number of devices. A generic IoT architecture consists of three layers, the application layer, the transport layer and the sensing layer. The application layer employs intelligent computing technologies. The transport layer is responsible for network operations and the sensing layer collects data. SDN-based architecture can help to meet the objectives of IoT in terms of a better Quality of Service, scalability, quick and easy deployment of the resources, and context-aware semantic information retrieval. As most of the IoT platforms are linked with the cloud architectures where a central hub is used to provide a series of backend services to smart devices. With the rapid rate of increase in smart devices, the need for future IoT network architecture has arisen. The research tries to concentrate on the process of increasing the efficiency of IoT architecture to accommodate a voluminous number of devices, for this Software-defined networking architecture can be used. The SDN networks such as Forces, 4D approach and Ethane can be used to overcome the limitations in addition to the generic IoT structure to achieve efficiency.

**Keywords:** SDN-based architecture ; IoT platforms ; efficiency ; Forces ; 4D approach ; Ethane

