

Title: Quality of Service aware NDN based network architecture.

Abstract:

A reliable communication architecture is one of the main concerns of Smartgrid, which requires bi-directional data flow between its devices. The currently used IP architecture fall short in supporting major smart grid communication requirements such as scalability, protocol interoperability, security and Quality of Service (QoS), etc. In order to address these requirements effectively, an information centric network architecture called Named Data Networking (NDN) can be used. In our research, a QoS-aware NDN framework is used to provide Quality of service in smart grid communication. The network traffic is classified based on its priority, using three different transmission queues and traffic is controlled using token buckets. This framework helps to address the low latency, high bandwidth, and high reliability requirements of smart grid communications.

Anju K. James

Graduate Student

CS Department

New Mexico State University