INTRODUCTION

- IoT devices rely on cloud services to share, process collected data, and trigger an external event.
- IoT devices can be heterogeneous in terms of processing capability, connectivity, functionality, etc.
- Localized control over IoT devices and deploying applications by utilizing their capabilities is a current popular research area.

OBJECTIVE

- Evaluating the feasibility of SDN architecture for in-network processing in complex IoT systems.
- Creating a reprogrammable IoT framework which can utilize the centralized architectural design of SDN.
- Using OpenFlow forwarding rules to control Open-vSwitch to route packets between IoT devices.

BACKGROUND: SDN ARCHITECTURE

SDN centralized controller prototype is used which will have complete control over the underlying topology of IoT devices.

Static Entry Push module running on top of SDN controller will push flow rules dynamically based on the application requirements.

Flow rules match fields will be application-specific and actions are performed on the packets that match these constraints.

CONCLUSION

- Adapting SDN architecture into IoT systems provides a flexible and scalable framework that supports different IoT applications with varying data flows.
- Dynamically routing packets between different IoT applications running on different IoT devices by injecting different flow rules.