

ABSTRACT

The advancement of network technology has driven the demand for efficient, flexible, and secure solutions, especially in environments requiring logical segmentation such as multitenancy. Cisco Application Centric Infrastructure (ACI) is an implementation of Software Defined Networking (SDN) designed to meet these needs through a policy-based approach. This study aims to implement multitenancy and network isolation on Cisco ACI and evaluate its performance in supporting tenant separation within a single physical network infrastructure. The implementation process involves the creation of multiple tenants with configurations including Virtual Routing and Forwarding (VRF), Bridge Domain (BD), and Endpoint Group (EPG). The results indicate that Cisco ACI is capable of managing multitenant networks efficiently, providing an optimal solution for the deployment of modern network architectures.

Keywords: *Cisco ACI, SDN, Multitenancy, VRF, EPG, network isolation.*