Analyzing Controller Placement in Software Defined Networks

Abstract
Software Defined Networks is an emerging network paradigm which introduces programmability to networks and has the capability to dynamically configure the network. In a traditional IP based network the control part and the data forwarding elements are imposed in a single box that has very limited ability to configure the network, some vendor specific codes run on the forwarding elements to perform this task. SDN takes another approach by decoupling the controller part from the data plane part. In a large network such as WAN, centralize of controller approach have many limitations related to the performance and scalability. The placement of the controller is one of them, which affects the scalability and performance. For a large network it is very difficult to decide how many controllers is sufficient to manage the network and where they should be placed. In this work we are trying to solve the problem of controller placement in an SDN network by using two clustering techniques. Latency is one of the measuring matrices that we have chosen.

References


Index Terms

Computer Science

Networks

Keywords

Controller  Software Defined Network  Topology