Patent Search

Invention Title	AN SDN ARCHITECTURE FOR SEPARATING DATA AND CONTROL PANES FOR EFFICIENCY IN NETWORK SECURITY
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Abstract:

Networks of different kinds are being used in real world applications. Networks became very complex due to technological innovations such as cloud computing, dist computing and Internet of Things (IoT). In complex network systems, it is very hard for administrators or security professionals to configure security related settings f time. It is a dynamic process which needs to carried out by professionals manually. Therefore, it is a tedious task to ensure security of networks. Network security ma made easier with the introduction of Software Defined Networking (SDN) technology. SDN helps in controlling security of networks programmatically through SDN co which separate control plane from data plane of the network. The current invention is meant for having an SDN architecture for separating data and control pane for network security. The architecture is designed to have three important planes known as data plane, control plane and application plane. The architecture has provisic configuring security settings of the entire network programmatically and manage security more efficiently. The router has control and data planes in order to have di labour so as to improve network performance. Centralized controller helps security professionals to control network security policies, rules and configurations with e Controlling network security from a central location has plethora of benefits in efficient network security management. The current invention is beneficial to many st such as network security professionals, administrators, organizations who need network security improvement, governments, researchers and academia.

Complete Specification

Description:FIELD OF INVENTION

Network security management is made easier with the introduction of Software Defined Networking (SDN) technology. SDN helps in controlling security of network programmatically through SDN controller which separate control plane from data plane of the network. The current invention is meant for having an SDN architecti separating data and control pane for efficiency in network security. The architecture is designed to have three important planes known as data plane, control plane application plane. The architecture has provision for configuring security settings of the entire network programmatically and manage security more efficiently. The has control and data planes in order to have division of labour so as to improve network performance. Centralized controller helps security professionals to control network security policies, rules and configurations with ease. Controlling network security from a central location has plethora of benefits in efficient network secur management.

The architecture of current invention two realize SDN technology that separate control plane and data plane. The data plane has network infrastructure with device capture and forward data flows. It plays an important role in the functioning of the network for intended purposes. In the application plane, it is possible to have dif kinds of applications. They include traffic monitoring applications, general networking applications, load balancing applications for better resource utilization and se services. In the current invention, security services are configured to enable SDN to have control over security of the entire network. SDN controller is another impo plane characterizing SDN technology for ease of controlling the network in different aspects including network security. It can interact with data plane and applicati in order to have things done. It has provision for security settings to be configured and enforced for entire network infrastructure through programmable approach than manual approach

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