ABSTRACT

In writing this scientific paper, this is motivated by a problem experienced by several network technicians, especially those on campuses or institutions or companies in the application of network installations because the problems faced are quite diverse ranging from the complexity of the structure of building plans, writing errors, and the large number of network devices. Due to rapid technological developments, the structure and functions of the devices applied are increasingly diverse and complex. To respond to these problems, a program that can configure network devices automatically is needed without further involvement of network technicians with the device. For this reason, the author designed a program automation that can automate configuration of devices with a faster process compared to traditional methods, in order to provide convenience and efficiency in configuring network devices carried out by network technicians. Supporting materials are needed so that the network automation program can run smoothly, one of which uses the python programming language version 3.7 with the networking package, namely netmiko, the author also adds a user interface package, namely tkinter, in order to make the program display more interactive and can be used by users. Implementation will be carried out on a virtualization web server application, namely Eve-Ng which focuses on testing router devices by viewing ip address information, ip address configuration, dynamic RIPv2 routing configuration, and viewing route paths on the router. Devices can be configured by a program that has been designed by entering to the device using SSH then send commands to the device so that it can see the results of the command and run the router configuration carried out with the menus available in the program and the router can be configured. And the routers can communicate with each other.

Key Glass : Network Automation, Python, Netmiko, Eve-Ng