# ABSTRACT

Several problems that occured in hardware-based network makes several telecommunication operator in the world contribute themselves to the forums that invited by ETSI to find alternatives to solve problems that occured during their business operations. Network Function Virtualization (NFV) is an alternative based on virtualization method which transform the hardware function to the manageable software function. The implementation of NFV is VNF (Virtualized Network Function). There is no any standards which used in an NFV building, in the infrastructure or related factors. Commonly, NFV could be run on hypervisor platform either container. This hypervisor and container has functionality to manage the isolations and manage the hardware for the virtual environment. Some published journals said that container is a lightweight platform rather than the hypervisor. However, the NFV that could be run in a container requires to be analyzed and compared before implementation. So that, in this experiments, container Docker and LXC were used to be the platforms that run the virtual router. The results show the lightweight characteristics of Docker and LXC refers to the small number of CPU and RAM consumptions of Docker and LXC during the network performance tests and shows good performance as well on network performances. The results are compared by the results of the last project which use the hypervisor as the platform to run NFV, so that it will make consideration seems ease to people who will implement this virtualization using virtual router as the object. As the results, LXC shows better and stable performances in several tests, so that LXC is the best recommendated platform to be implemented as the platform which run the virtual routers.


Keywords : virtualisasi, NFV, VNF, virtual router, container, Docker, LXC