

## **A SURVEY ON THE USE OF GNS3 FOR VIRTUALIZING COMPUTER NETWORKS**

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### **ABSTRACT**

The development of virtualization technology has moved beyond its primary application for storage area network and server resources; today it encompasses simulation of entire computer network components. Network virtualization composes an intelligent layer of abstraction that offers flexible deploying and managing network services and its underlying resources. The network virtualization and simulation tools, like GNS3, is an alternative that allows network designer and developer to implement multiple networked computers, hosts and routers in virtualized environment in a cost effective manner to validate and test new networking protocols and verify a specific network algorithm. Thus Computer network simulation is an important modern technology that provides easy and economic method of testing and validation of network feasibility. In this survey paper, we discuss about main features of GNS3 simulator and consider its advantage for network virtualization and its enhancement.

**KEYWORDS:** GNS3, Virtualization, Cisco IOS, Topology Automatic Configuration, Network Simulator