Virtual Local Area Network (VLAN)

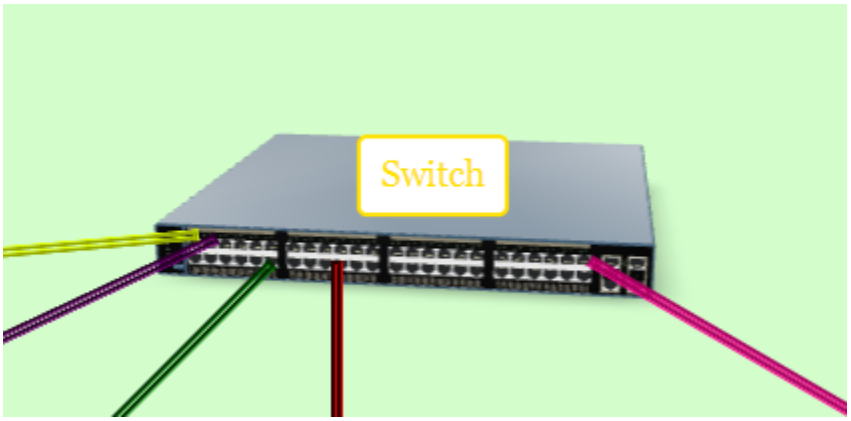
Aim:
The aim of this document is to provide a comprehensive understanding of File Virtual Local Area Network (VLAN), focusing on its theoretical foundations and practical implementations. This includes defining VLAN, explaining its objectives, detailing the steps for its configuration, and concluding with its benefits and considerations.

Objectives
To understand the concept and significance of VLANs in network management.

Definition
A Virtual Local Area Network (VLAN) is a subnetwork that can group together collections of devices from different physical LANs. VLANs improve network efficiency and security by segmenting a larger network into smaller, isolated segments. This allows for better management and utilization of bandwidth and provides additional security by isolating sensitive data.

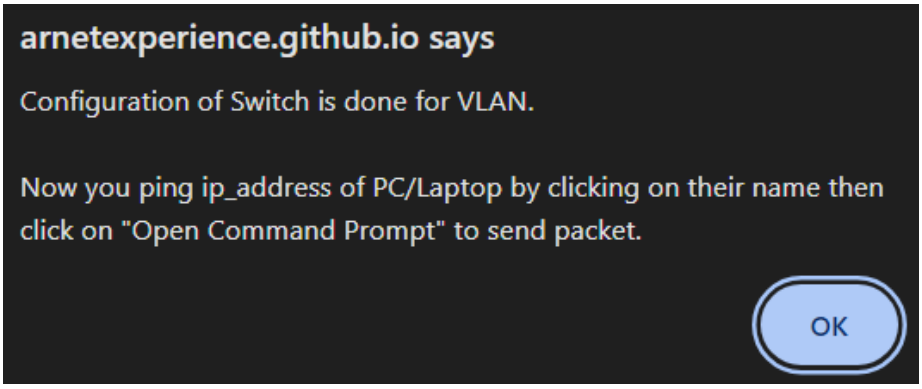
Conclusion
The implementation of VLANs in a network offers significant benefits in terms of efficiency, security, and manageability. By logically segmenting a physical network into smaller, isolated segments, VLANs help in reducing broadcast traffic, enhancing security, and providing flexibility in network design.

1) Click on switch button and open command line interface,

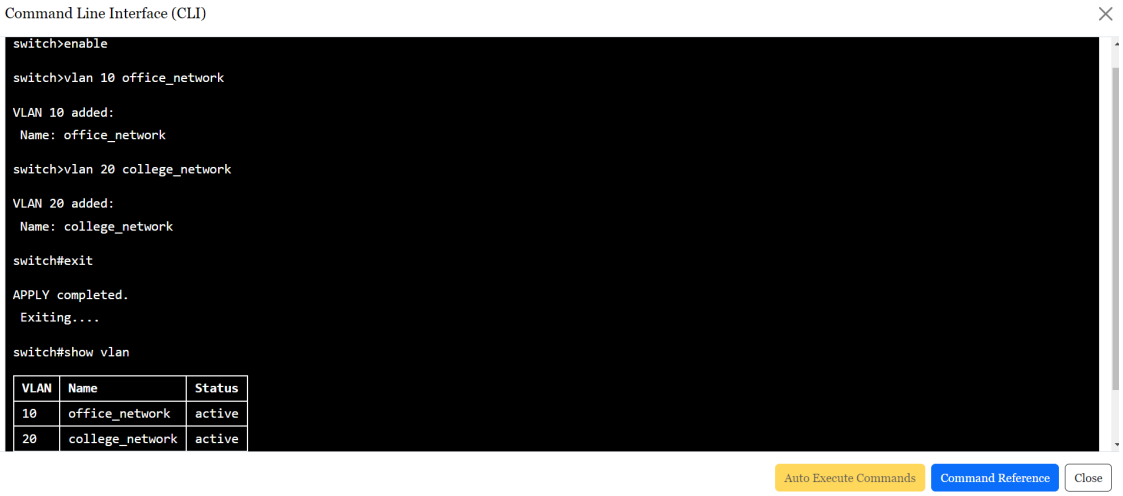


WS-C3650-48PS-S Cisco Catalyst 3650 Network Switch

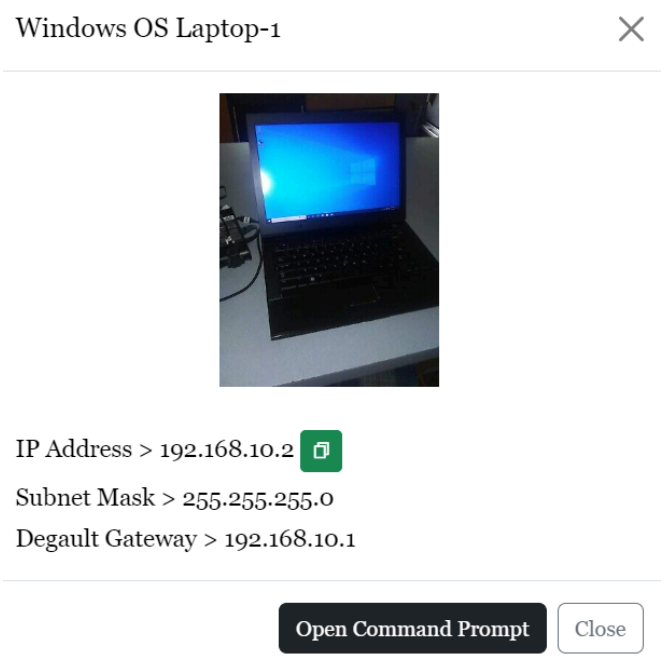
Open CLI Okay



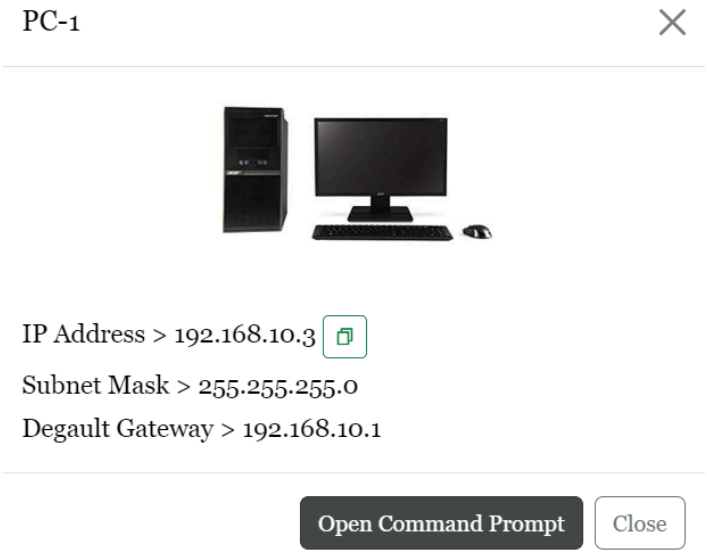
2) Auto execute commands or you can also execute commands one by one.



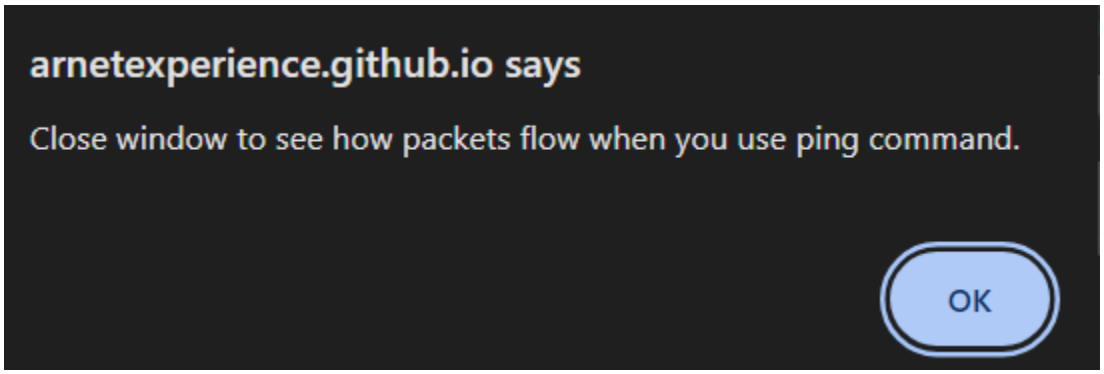
3) Click on any laptop or PC and copy IP address



4) Click on another PC or laptop and open CLI and paste the IP address of previous laptop/PC



5)



6) Packets will move from switch to laptop and PC to router, after successful completion of simulation you will get a pop-up message.