Testing report and configuration details

INTRODUCTION

In Week 3 of the project, the objective was to implement VLAN trunks and verify communication between VLANs through the FortiGate firewall. VLAN trunks allow a single physical port to carry traffic for multiple VLANs. This ensures efficient use of ports.

Trunk Implementation

☐ ▪	🏢 port2	🏢 Physical Interface		100.65.0.101/255.255.255.0	PING HTTPS SSH HTTP
☐ ●	⊞ VLAN_Accounting	⊞ VLAN		10.10.10.10/255.255.255.0	PING HTTPS SSH
☐ ●	⊞ VLAN_Hr	⊞ VLAN		20.20.20.20/255.255.255.0	PING HTTPS SSH

No addition switch configuration was required, since in the lab environment, FortiGate firewall automatically simulates the trunk, allowing multiple VLANs to share the same physical port (port2).

Verification

The ping tests shown below verify proper trunk operation between VLAN_Accounting and VLAN_Hr

```
CLI Console (1)
HQ-NGFW-1 # execute ping-options source 10.10.10.10

HQ-NGFW-1 # execute ping 20.20.20.20
PING 20.20.20.20 (20.20.20.20): 56 data bytes
64 bytes from 20.20.20.20: icmp_seq=0 ttl=255 time=0.0 ms
64 bytes from 20.20.20.20: icmp_seq=1 ttl=255 time=0.0 ms
64 bytes from 20.20.20.20: icmp_seq=2 ttl=255 time=0.0 ms
64 bytes from 20.20.20.20: icmp_seq=3 ttl=255 time=0.0 ms
64 bytes from 20.20.20.20: icmp_seq=4 ttl=255 time=0.0 ms

--- 20.20.20.20 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.0/0.0/0.0 ms

HQ-NGFW-1 # execute ping-options source 20.20.20.20

HQ-NGFW-1 # execute ping 10.10.10.10
PING 10.10.10.10 (10.10.10.10): 56 data bytes
64 bytes from 10.10.10.10: icmp_seq=0 ttl=255 time=0.1 ms
\64 bytes from 10.10.10.10: icmp_seq=1 ttl=255 time=0.0 ms
64 bytes from 10.10.10.10: icmp_seq=2 ttl=255 time=0.0 ms
64 bytes from 10.10.10.10: icmp_seq=3 ttl=255 time=0.0 ms
64 bytes from 10.10.10.10: icmp_seq=4 ttl=255 time=0.0 ms

--- 10.10.10.10 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.0/0.0/0.1 ms

HQ-NGFW-1 #
```

The following Figure shows both Vlans having a status of being active , also ensuring that they're running effectively

```
edit "VLAN_Accounting"
    set vdom "root"
    set ip 10.10.10.10 255.255.255.0
    set allowaccess ping https ssh
    set device-identification enable
    set role lan
    set snmp-index 12
    set ip-managed-by-fortiipam disable
    set interface "port2"
    set vlanid 5
next
edit "VLAN_Hr"
    set vdom "root"
    set ip 20.20.20.20 255.255.255.0
    set allowaccess ping https ssh
    set device-identification enable
    set role lan
    set snmp-index 13
    set ip-managed-by-fortiipam disable
    set interface "port2"
    set vlanid 10
```

Screenshot of VLAN-Accounting and VLAN_Hr showing they are active and reachable.