رواد مصر الرقمية

وزارة الاتصالات
وتكنولوجيا المعلومات

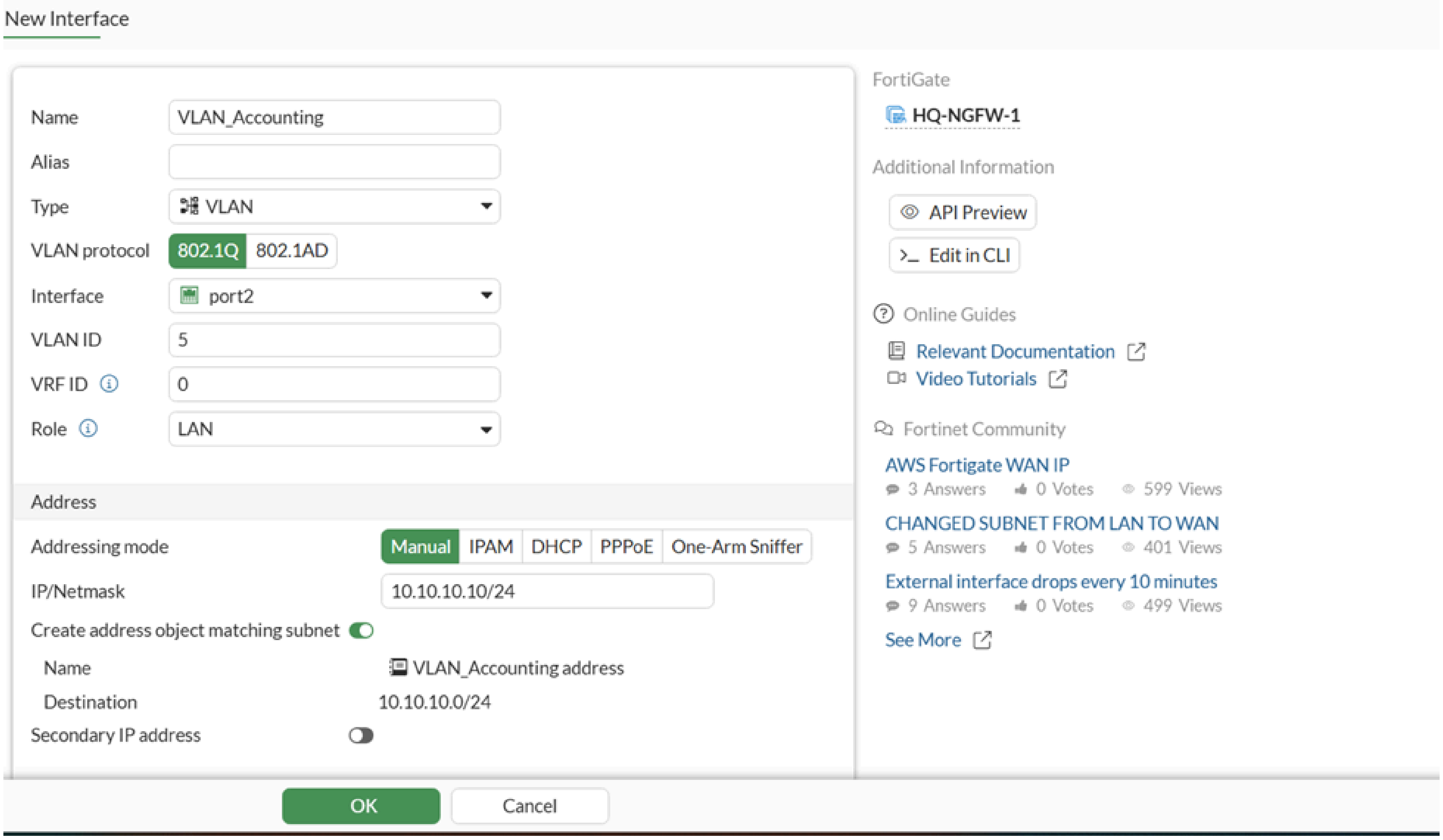
FortiGate VLAN configuration and policy documentation

INTRODUCTION

In Week 2 of the project, the goal was to integrate the FortiGate firewall with the VLANs created in Week 1 and enable inter-VLAN routing. We Created VLAN subinterfaces on the FortiGate, assigning gateway addresses, configuring administrative access, and adding firewall policies to control traffic between the VLANs.

Fortigate Vlan Configuration:

VLAN_Accouting



New Interface

Name	VLAN_Accounting
Alias	
Type	VLAN
VLAN protocol	[✓ 802.1Q] 802.1AD
Interface	port2
VLAN ID	5
VRF ID ⓘ	0
Role ⓘ	LAN

Address

Addressing mode	[✓ Manual] IPAM DHCP PPPoE One-Arm Sniffer
IP/Netmask	10.10.10.10/24
Create address object matching subnet	●
Name	VLAN_Accounting address
Destination	10.10.10.0/24
Secondary IP address	○

FortiGate

HQ-NGFW-1

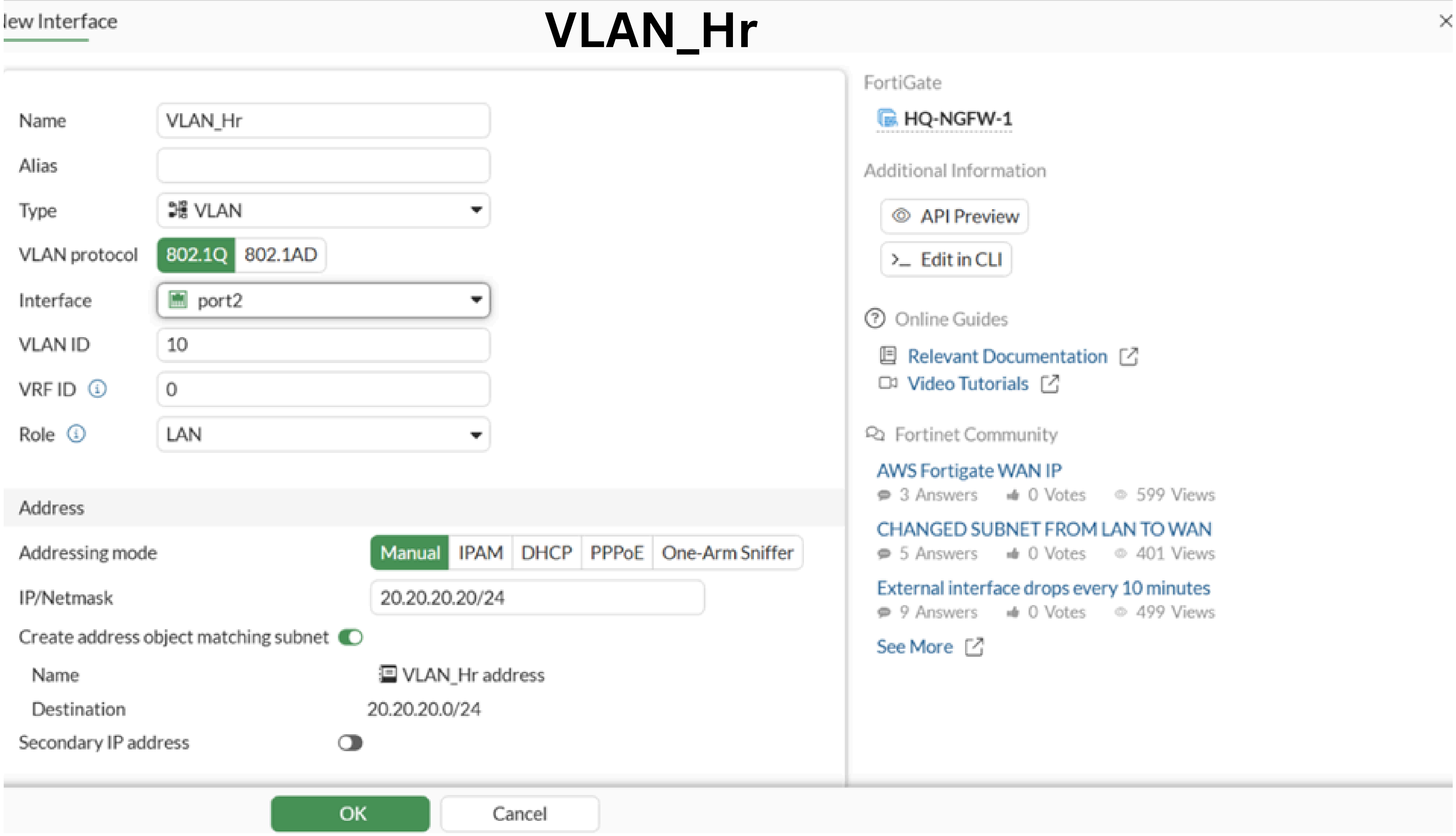
Additional Information

AWS Fortigate WAN IP
3 Answers 0 Votes 599 Views

CHANGED SUBNET FROM LAN TO WAN
5 Answers 0 Votes 401 Views

External interface drops every 10 minutes
9 Answers 0 Votes 499 Views

VLAN_Hr



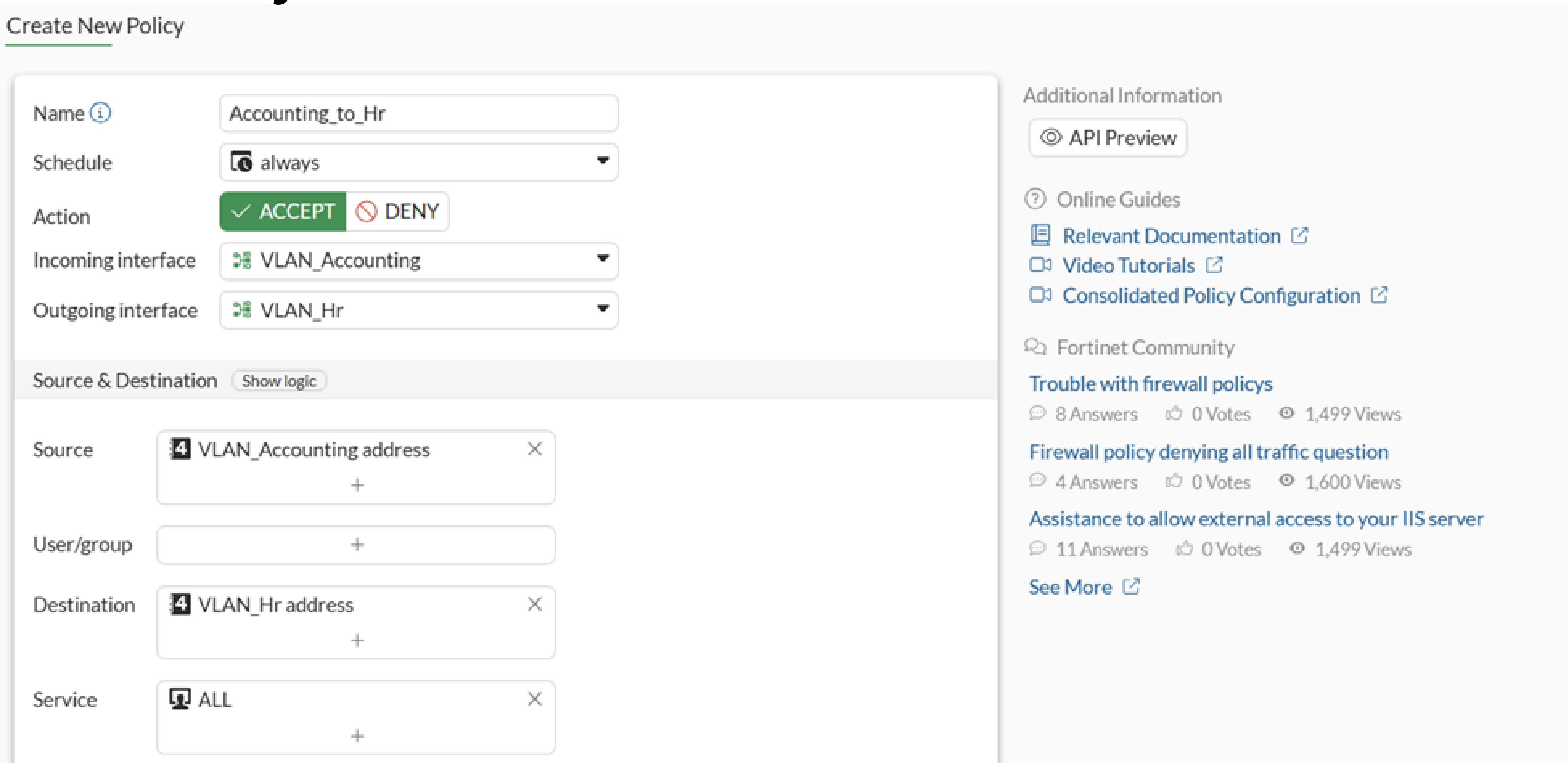
lew Interface

Name: VLAN_Hr
Alias:
Type: VLAN
VLAN protocol: 802.1Q | 802.1AD (802.1Q selected)
Interface: port2
VLAN ID: 10
VRF ID: 0
Role: LAN

Address
Addressing mode: Manual | IPAM | DHCP | PPPoE | One-Arm Sniffer (Manual selected)
IP/Netmask: 20.20.20.20/24
Create address object matching subnet: enabled
Name: VLAN_Hr address
Destination: 20.20.20.0/24
Secondary IP address: disabled

Both of these VLANs were implemented on port 2 , with 2 separate Ips as shown in attached pictures

Firewall Policy:

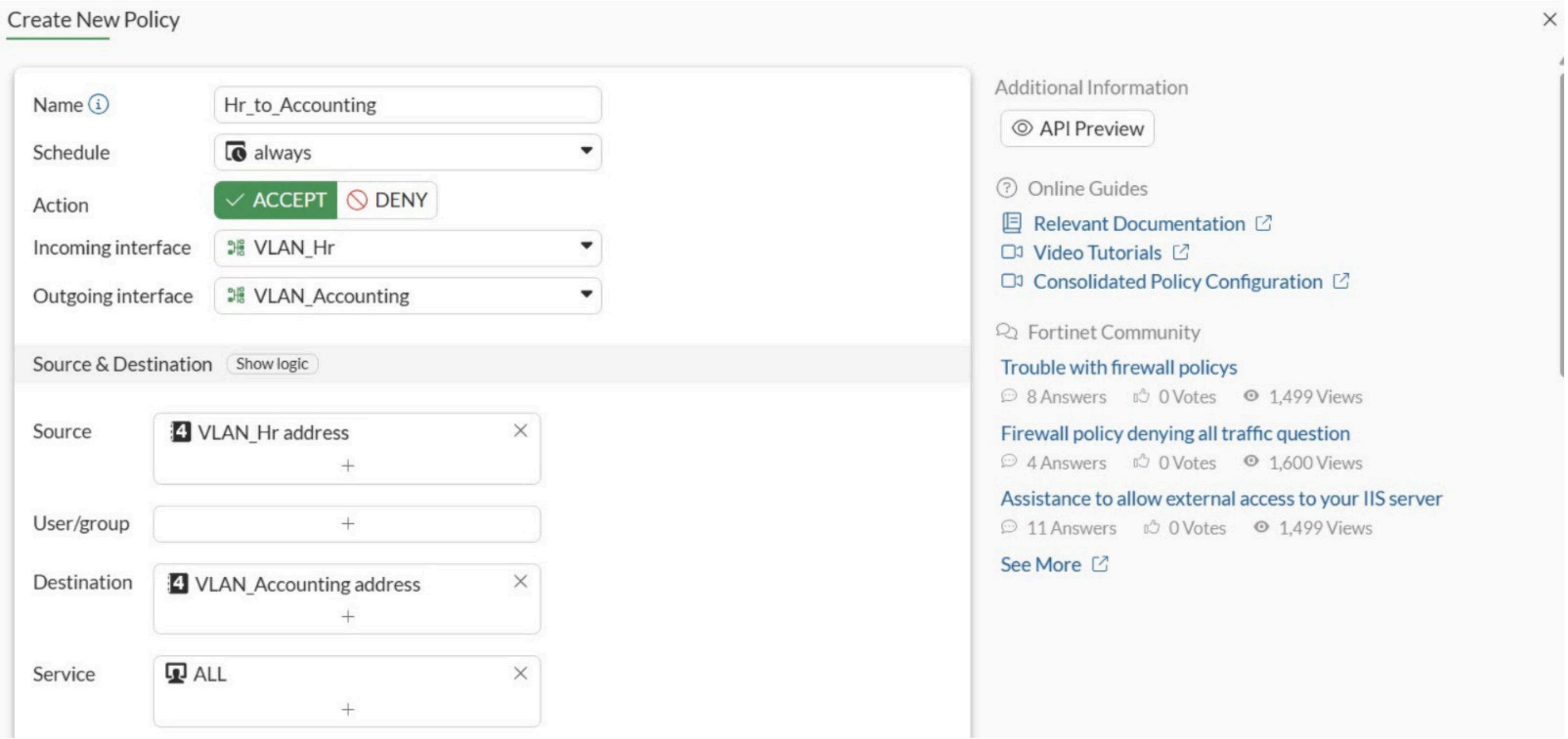


Create New Policy

Name: Accounting_to_Hr
Schedule: always
Action: ACCEPT | DENY (ACCEPT selected)
Incoming interface: VLAN_Accounting
Outgoing interface: VLAN_Hr

Source & Destination
Source: VLAN_Accounting address
User/group:
Destination: VLAN_Hr address
Service: ALL

Show logic
+
×
Additional Information
API Preview
Online Guides
Relevant Documentation
Video Tutorials
Consolidated Policy Configuration
Fortinet Community
Trouble with firewall policys
8 Answers 0 Votes 1,499 Views
Firewall policy denying all traffic question
4 Answers 0 Votes 1,600 Views
Assistance to allow external access to your IIS server
11 Answers 0 Votes 1,499 Views
See More



Create New Policy

Name: Hr_to_Accounting

Schedule: always

Action: [✓ ACCEPT] DENY

Incoming interface: VLAN_Hr

Outgoing interface: VLAN_Accounting

Source & Destination

Source: VLAN_Hr address

User/group:

Destination: VLAN_Accounting address

Service: ALL

Show logic
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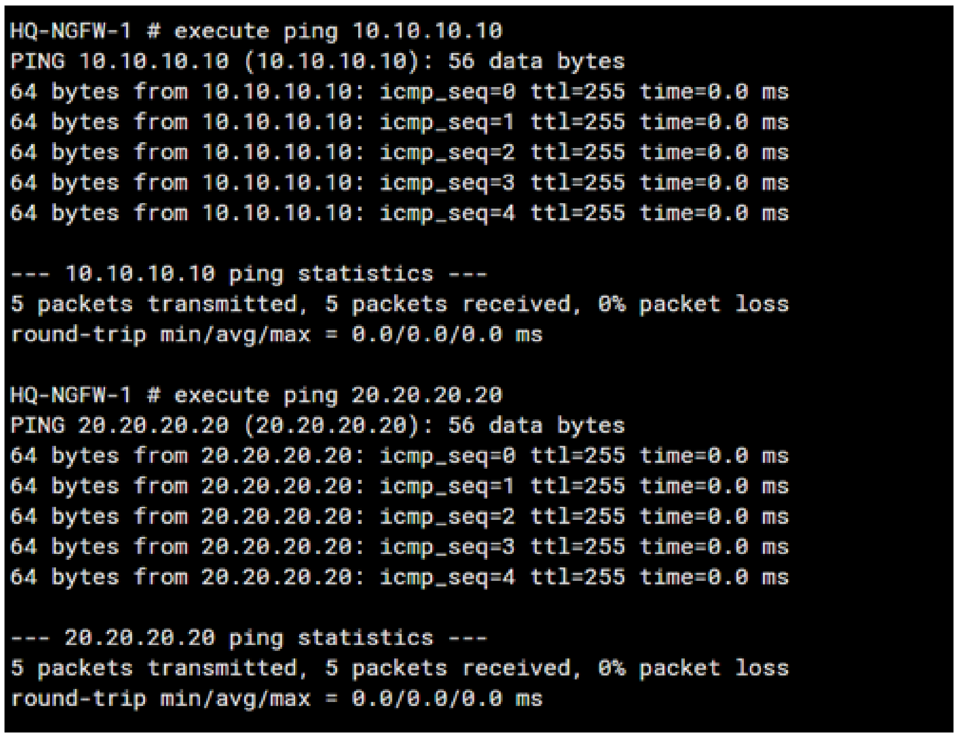
These policies ensure that traffic can flow freely between the two VLANs, while still allowing the firewall to enforce inspection, logging, or security profiles if needed.

Verification:

To make sure that the vlans were implemented correctly independently of each other , and to then prove that they could communicate with each other the following tests were preformed



```
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=0.0 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 = 0.0/0.0/0.0 ms

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
```

This confirms that inter-VLAN routing is working properly and that firewall policies allow communication in both directions.