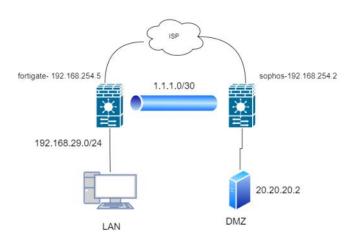
# **NETWORK OVERVIEW**



### **OVERVIEW:**

This configuration was done in VM and both wan are configured in bridge connection while other networks in NAT and custom VM adapter. So the configuration may vary in real world. Here are some terms:

HOST	IP
FORTIGATE WAN	192.168.254.5
SOPHOS WAN	192.168.254.2
TUNNEL IP OF SOPHOS	1.1.1.1
TUNNEL IP OF FORTIGATE	1.1.1.2
LAN IP OF FORIGATE	192.168.29.136
DMZ IP OF SOPHOS	20.20.20.2

FIREWALL	VERSION
SOPHOS	19
FORTIGATE	7.4

#### **CONFIGURATION OF FORTIGATE:**

The process is relatively straightforward and simple. First, we need to create our GRE tunnel. The two sites we will be creating the tunnel

```
Fortigate-7 # show system gre-tunnel gre-soph
config system gre-tunnel
    edit "gre-soph"
        set interface "port2"
set remote-gw 192.168.254.2
         set local-gw 192.168.254.5
    next
end
Fortigate-7 #
```

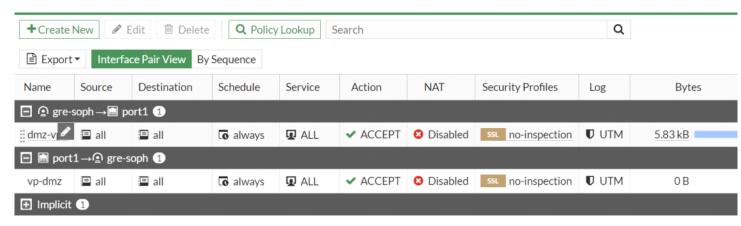
```
Fortigate-7 # show system interface gre-soph
config system interface
   edit "gre-soph"
        set vdom "root"
        set ip 1.1.1.2 255.255.255
        set allowaccess ping
        set type tunnel
        set remote-ip 1.1.1.1 255.255.255
        set snmp-index 65
        set interface "port2"
   next
end

Fortigate-7 #
```

## Configuring static route:

Destination 🕏	Gateway IP <b></b>	Interface \$	Status \$	Comments \$
20.20.20.0/24	1.1.1.1	gre-soph	Enabled	

#### Configuring firewall rules:



### Verification from FORTIGATE firewall.

```
Fortigate-7 # execute ping 1.1.1.1
PING 1.1.1.1 (1.1.1.1): 56 data bytes
64 bytes from 1.1.1.1: icmp_seq=0 ttl=64 time=1.0 ms
64 bytes from 1.1.1.1: icmp_seq=1 ttl=64 time=1.1 ms
64 bytes from 1.1.1.1: icmp_seq=2 ttl=64 time=1.2 ms
64 bytes from 1.1.1.1: icmp_seq=3 ttl=64 time=1.2 ms
64 bytes from 1.1.1.1: icmp_seq=4 ttl=64 time=1.4 ms
--- 1.1.1.1 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 1.0/1.1/1.4 ms
Fortigate-7 #
Fortigate-7 # execute ping 20.20.20.2
PING 20.20.20.2 (20.20.20.2): 56 data bytes
64 bytes from 20.20.20.2: icmp_seq=0 ttl=64 time=0.9 ms 64 bytes from 20.20.20.2: icmp_seq=1 ttl=64 time=0.8 ms
64 bytes from 20.20.20.2: icmp_seq=2 ttl=64 time=1.0 ms
64 bytes from 20.20.20.2: icmp_seq=3 ttl=64 time=0.7 ms
64 bytes from 20.20.20.2: icmp_seq=4 ttl=64 time=1.0 ms
--- 20.20.20.2 ping statistics ---
5 packets transmitted, 5 packets received, \theta% packet loss
round-trip min/avg/max = 0.7/0.8/1.0 ms
Fortigate-7 #
```

## **CONFIGURATION OF SOPHOS**

Create a GRE tunnel between the two networks by running the following commands:

```
onsole> system gre tunnel add name milan local-gw PortB remote-gw 192.168.254.
local-ip 1.1.1.1 remote-ip 1.1.1.2
                                                   LOCAL-IP
                                                                     REMOTE-IP
       TTL
                  DYNDNS
                               STATUS
                                192.168.254.5
                                                   1.1.1.1
                                                                     1.1.1.2
nilan
               PortB
                  off
       64
                               Enabled
onsole>
```

Note: Don't forget to enable the tunnel.

```
console> system gre tunnel set name milan state enable
Tunnel is already enabled
console> ■
```

#### Configuring GRE route:

```
console> system gre route add net 192.168.29.0/255.255.255.0 tunnelname milan
```

```
console> system gre route show

IP/MASK GRE Tunnel

10.1.1.0/255.255.255.0 gre

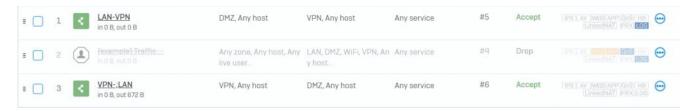
10.1.1.0/255.255.255.0 milan

192 168 87 0/255 255 255 0 milan

192.168.29.0/255.255.255.0 milan

console>
```

#### Firewall policy:



### Verification from SOPHOS firewall.

```
console> ping 1.1.1.2

PING 1.1.1.2 (1.1.1.2): 56 data bytes

64 bytes from 1.1.1.2: seq=0 ttl=255 time=1.491 ms

64 bytes from 1.1.1.2: seq=1 ttl=255 time=0.960 ms

64 bytes from 1.1.1.2: seq=2 ttl=255 time=0.428 ms

64 bytes from 1.1.1.2: seq=3 ttl=255 time=0.772 ms

??^C

--- 1.1.1.2 ping statistics ---

4 packets transmitted, 4 packets received, 0% packet loss

round-trip min/avg/max = 0.772/1.162/1.491 ms

console> ping 192.168.29.136

Fortigate IAN IP

PING 192.168.29.136 (192.168.29.136): 56 data bytes

64 bytes from 192.168.29.136: seq=0 ttl=255 time=0.940 ms

64 bytes from 192.168.29.136: seq=1 ttl=255 time=0.853 ms

64 bytes from 192.168.29.136: seq=2 ttl=255 time=0.874 ms

PING 192.168.29.136: ping statistics ---

4 packets transmitted, 4 packets received, 0% packet loss

round-trip min/avg/max = 0.744/0.927/1.173 ms

console>
```