- show ip interface management

- set deviceconfig ip-address ip 4 netmask
- then commit

PAN OS is used

interface management.

① management profiles are where we can add the security groups

② configuring

go to device give name

Domain name

③ config interfaces with ip, security policy. add zones — inside, outside or dmz

③ Secure tunnel

Go to network then set a tunnel interface

set IKE crypto encryption
set Ipsec crypto encryption
set IKE Gateway
then set tunnels on both FW

Then from CLI of firewall test the VPN tunnel which will initiate the tunnel

To add Paulo Alto into panaroma.

— ① Have a serial number

Panaroma tab —
- manage device
  ↓
  summary
  ↓
  Add a device
  ↓
  Add a serial
  ↓
  newer needs auth key

Once that done of PA

We have to go to device —

↓

panorama settings

↓

Add panorama server ip or auth key

2. Upgrading firewall from panorama.

on panorama

Go to panarama tab

↓

Device deployment section

↓

software search the version

install → just copy or reboot

3. Content-ID

— Dynamic update

4. Panorama template

Panorama tab

Add template

5. Panorama policy

Types of Policy

1. Pre Rules — Applies to all
2. Local rules — locally to a few
3. Post rules
4. Default Rules

Adding Security policy

Source — Destination zone, Destination add
Destination device

" Destination

BGP

① Allows per subnet transmission to different path – Traffic engineering is easy in BGP.

router bgp 100
↳ asn no.
Autonomous system no.

* We can only use single asn no. of BGP.

- neighbourship is manual
- neighbourship is unicast
  - Two types of neighbourship
    - ① External = diff as no.
    - ② Internal = same as no.

internal BGP TTL is 255
external BGP TTL is 1 because they are directly connected.

BGP commands

R1 # router bgp 100
neighbour 1.1.1.2 remote-as 200
show ip bgp neighbours
show ip bgp summary

next hop —

→ neighbour 200.1.1.2 next-hop-self

To take impact of bgp we use refresh TCP conn^n

→ * clear ip bgp * soft in

◦ Load sharing in BGP

7 attributes in bgp has to be tied
Weight, local preference, AS path, origin code, MED, EBGP over IBGP

- for loading sharing we config the maximum path
- by default the maximum path is set to 1

maximum-paths 2 ← for internal bgp

for external BGP we have need one more cmd

bgp bestpath as-path multipath-relax

↓

then refresh

* BGP route filtering (To control route)

neighbour add distribute-list

—|— —|— prefix-list

—|— —|— route-map

(config) # ip prefix-list default permit 0.0.0.0/0

neighbour 1.1.1.1 prefix-list default

Community value is set on ISP's so whenever that particularly set numbers come on that ISP He will set the Local value.

ex. if received 100:120 then set 120

BGP uses TCP port 179.