

TeraFlow
SDN
by ETSI

Hackfest #4: Introduction to EVE-NG

Pablo Armingol(TID)

Juan Carlos Caja (TID)

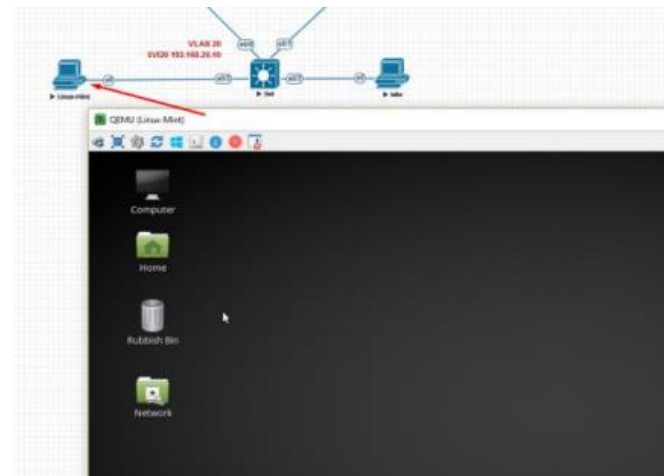
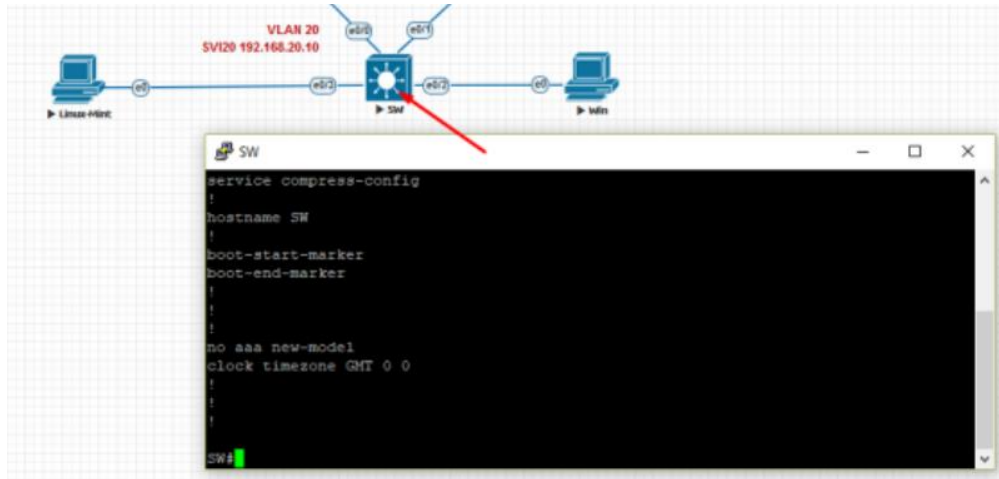
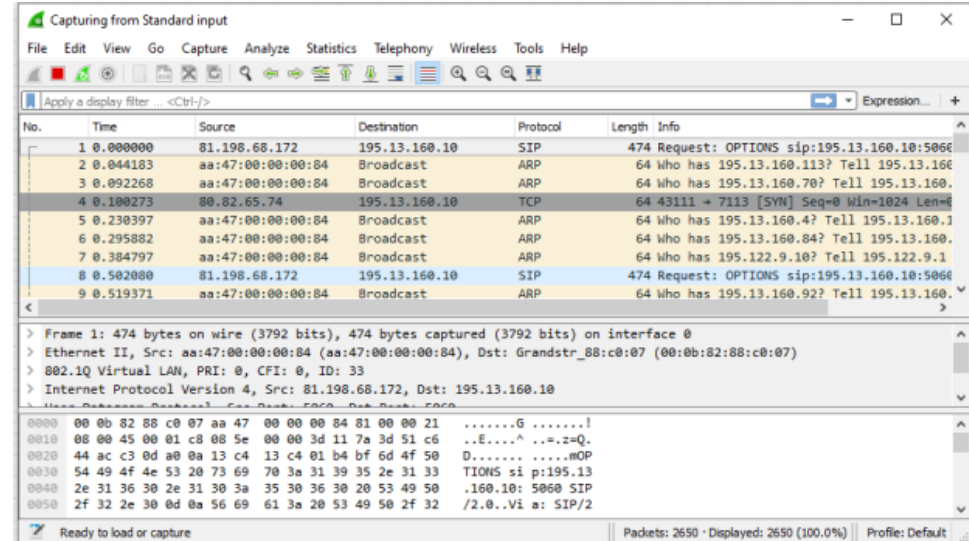
What is EVE-NG?

What is EVE-NG?

Emulated Virtual Environment – Next Generation

- Gives you tools to use around virtual devices.
- Interconnects virtual devices with other virtual or physical devices.
- It can be used for studying all kinds of technologies.
- Recreate corporate networks and test changes before putting them into production

What is EVE-NG?



ADD NODES

ADD NODES

ADD A NEW NODE ✕

Template
Juniper vSRX NextGen

Number of nodes to add **Image**
vsrxng-15.1X49-D110.4

Name/prefix
vSRX-NG

Icon
JuniperSRX.png

UUID

CPU Limit

CPU **RAM (MB)** **Ethernets**

QEMU Version **QEMU Arch** **QEMU Nic**

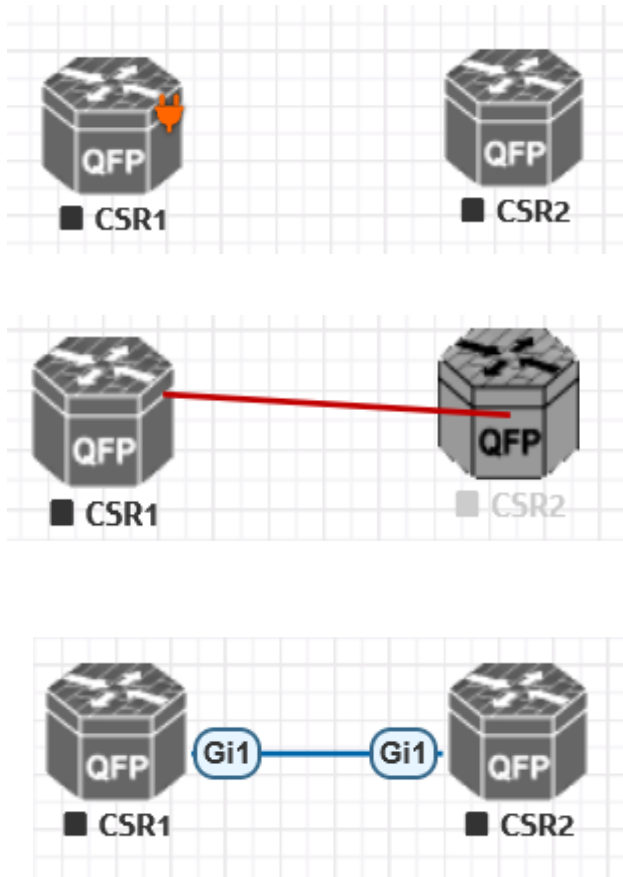
QEMU custom options

Config Parameters:

- Node Name
- Boot image
- Number of CPUs for the node
- Enable or disable CPU Limit
- IDLE PC for Dynamips node
- NVRAM in Kbyte
- RAM in Mbyte
- Ethernet quantity.
- Serial interface quantity
- Type of Console
- Node Icon that appears on the Topology
- Startup configuration to boot from

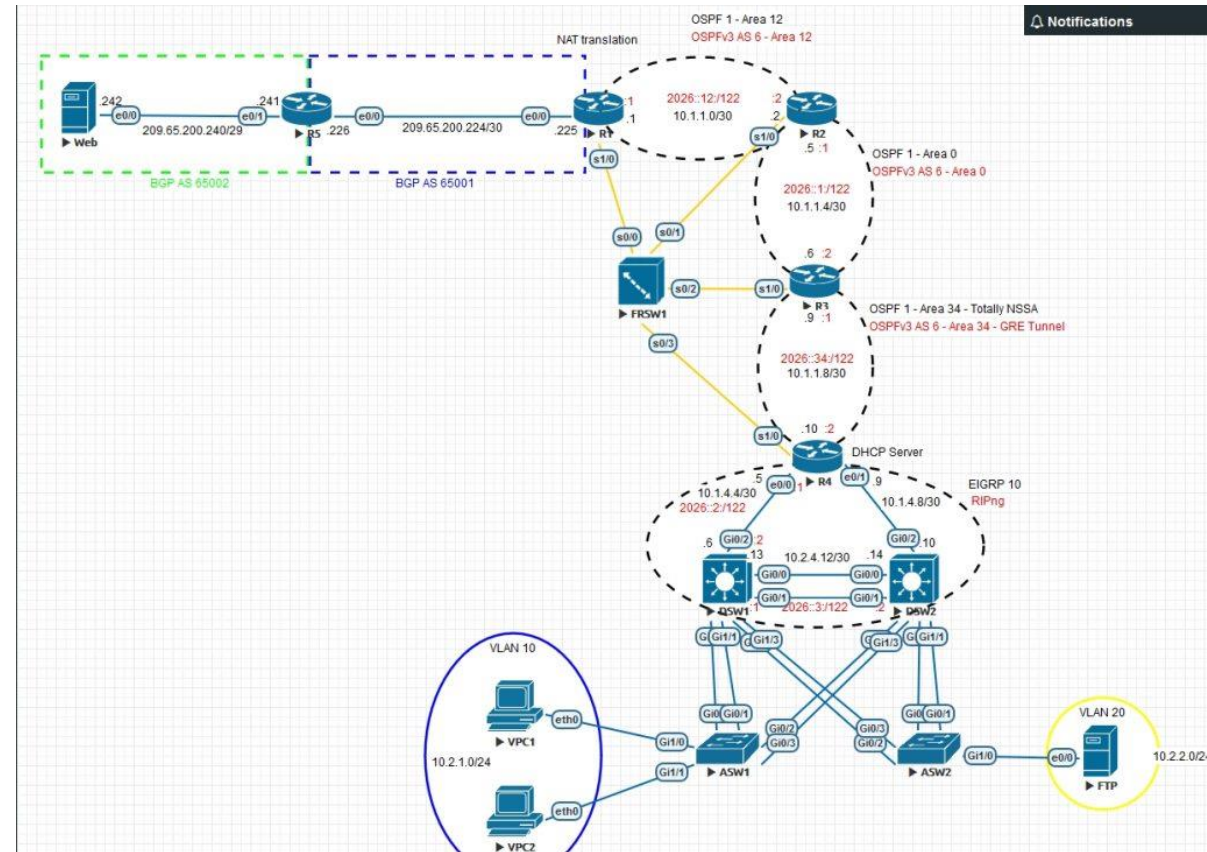
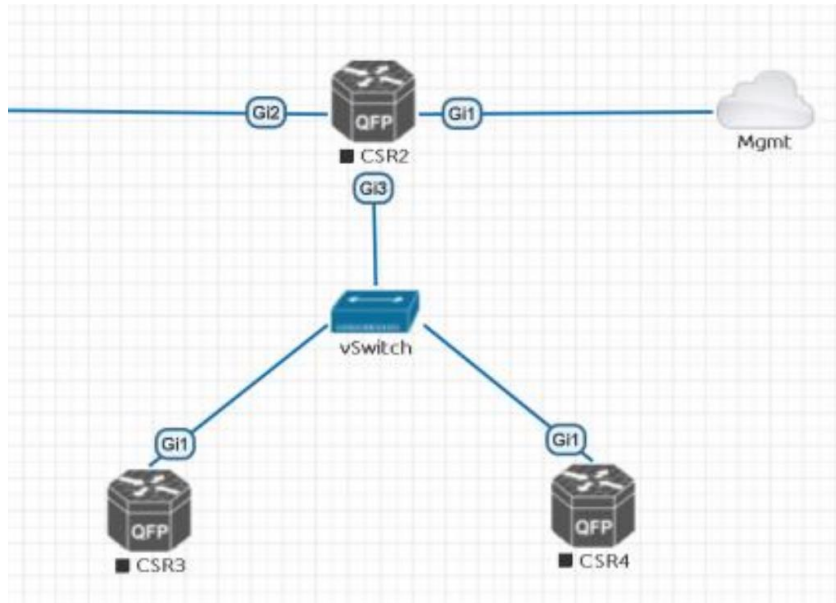
Create Topologies

Create Topologies

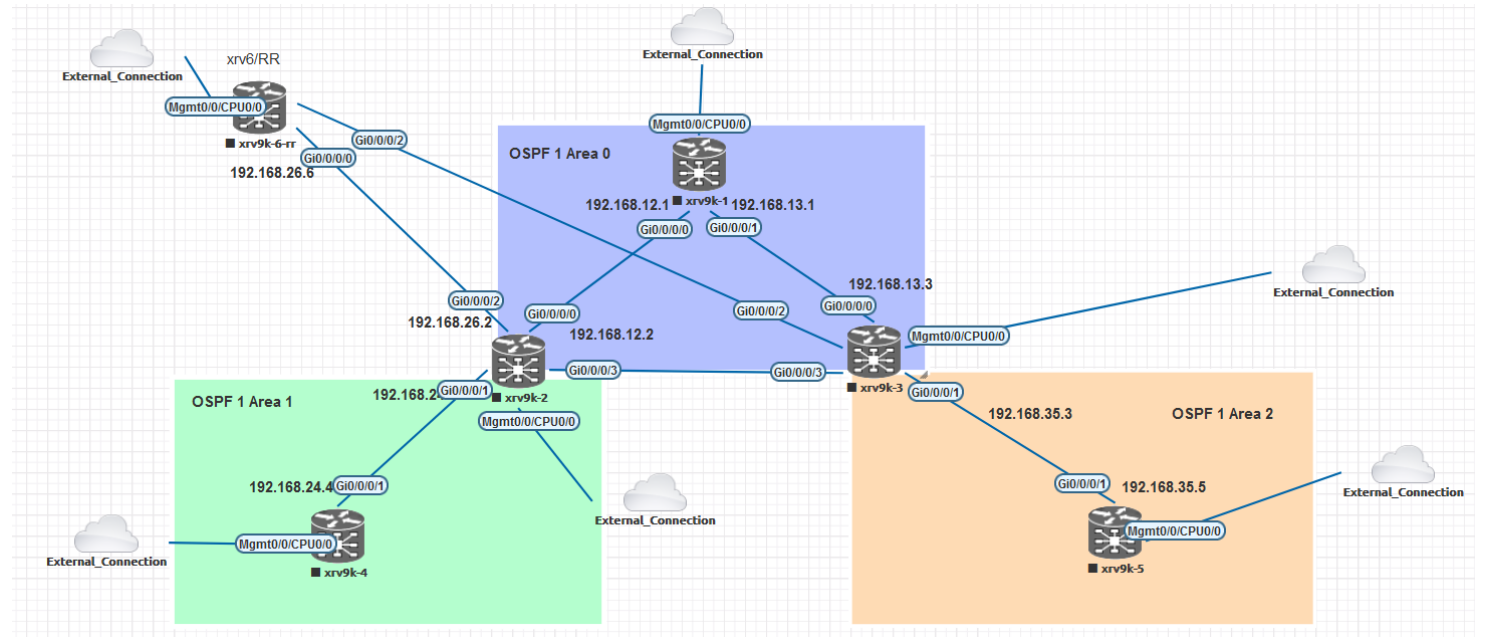
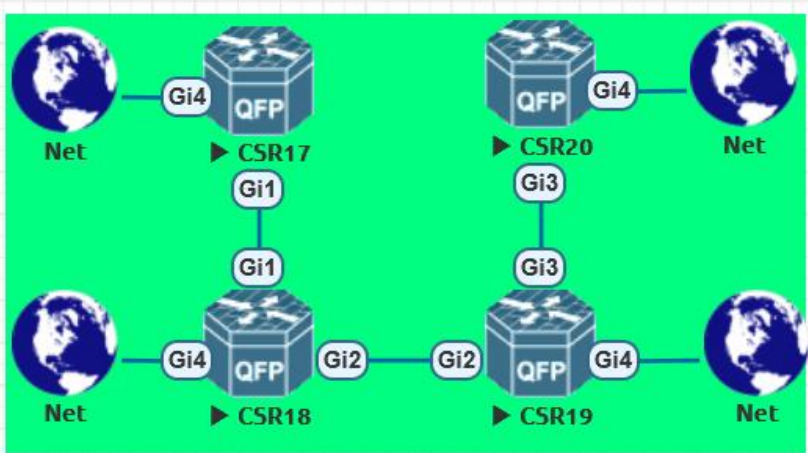


```
root@vSRX1> show configuration
system {
  host-name R1;
  root-authentication {
    encrypted-password "$zzz"; ## SECRET-DATA
  }
}
interfaces {
  ge-0/0/0 {
    unit 0 {
      family inet {
        address 10.0.0.1/24;
      }
    }
  }
}
security {
  forwarding-options {
    family {
      inet6 {
        mode packet-based;
      }
      mpls {
        mode packet-based;
      }
      iso {
        mode packet-based;
      }
    }
  }
}
```


Create Topologies



Create Topologies



Links information

Links information

```

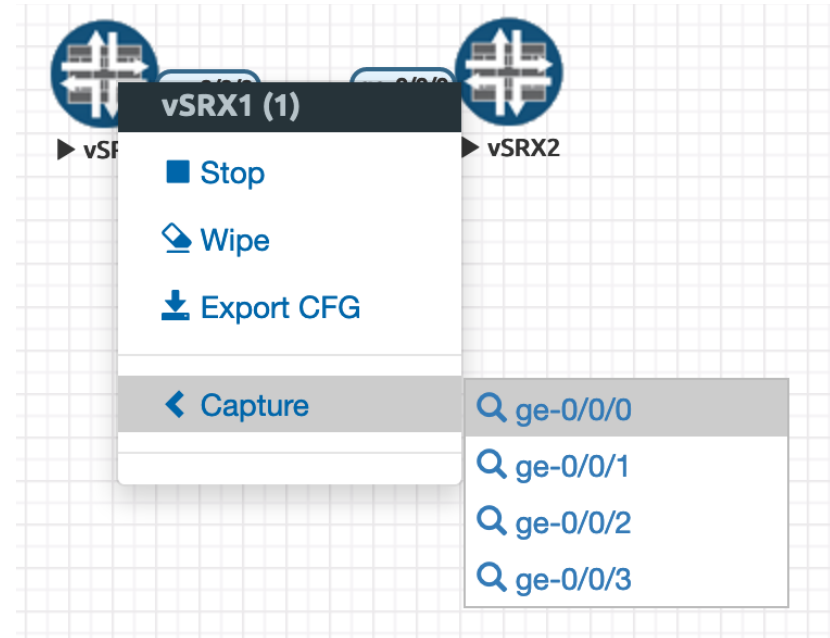
root@vSRX1> show configuration interfaces ge-0/0/0
unit 0 {
  family inet {
    address 10.0.0.1/24;
  }
}
  
```

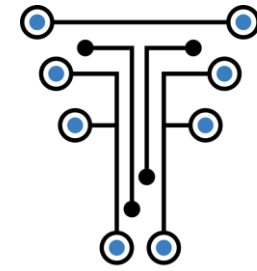
```

james@eve-ng:~$ ifconfig vunl0_1_0
vunl0_1_0 Link encap:Ethernet HWaddr 1a:05:e3:0c:2e:5f
UP BROADCAST RUNNING MULTICAST MTU:9000 Metric:1
RX packets:142 errors:0 dropped:0 overruns:0 frame:0
TX packets:142 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:13804 (13.8 KB) TX bytes:13804 (13.8 KB)
  
```

```

james@eve-ng:~$ sudo tcpdump -i vunl0_1_0
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on vunl0_1_0, link-type EN10MB (Ethernet), capture size 262144 bytes
22:55:28.378802 IP 10.0.0.1 > 10.0.0.2: ICMP echo request, id 41476, seq 4, length 64
22:55:28.379292 IP 10.0.0.2 > 10.0.0.1: ICMP echo reply, id 41476, seq 4, length 64
22:55:29.383831 IP 10.0.0.1 > 10.0.0.2: ICMP echo request, id 41476, seq 5, length 64
22:55:29.384281 IP 10.0.0.2 > 10.0.0.1: ICMP echo reply, id 41476, seq 5, length 64
  
```





TeraFlow
SDN
by ETSI

Thank You all for
your participation!