

# Hackfest #4: Introduction to EVE-NG

Pablo Armingol(TID)

Juan Carlos Caja (TID)

# What is EVE-NG?

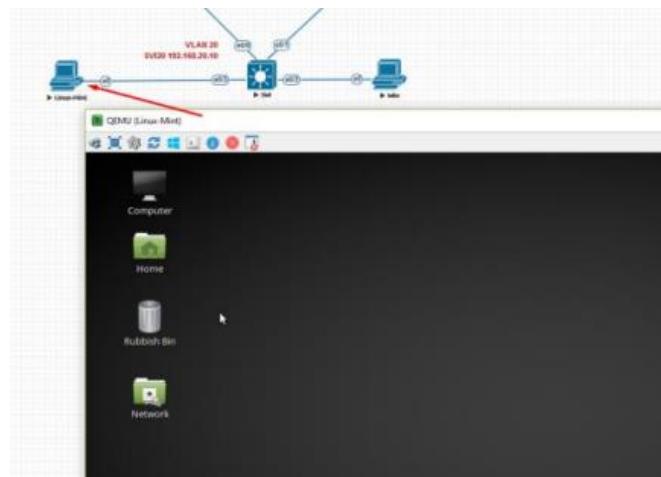
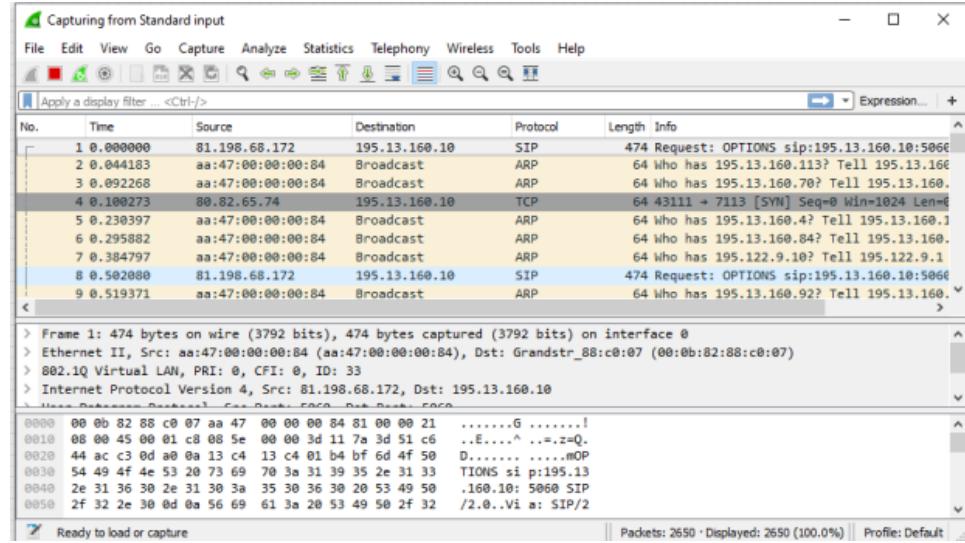
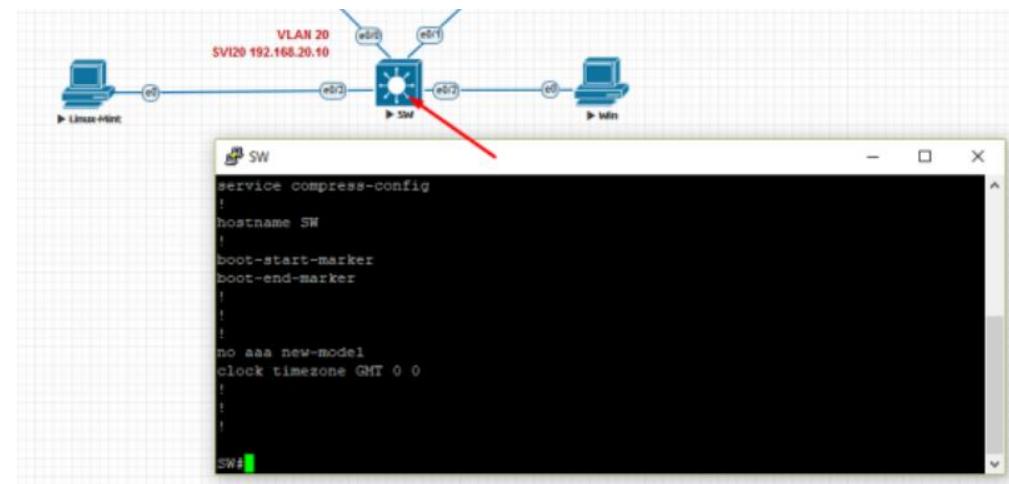
# What is EVE-NG?

---

## 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** 1      **Image** vsrxng-15.1X49-D110.4

**Name/prefix** vSRX-NG

**Icon** JuniperSRX.png

**UUID**

**CPU Limit**

|   |                                 |  |
|---|---------------------------------|--|
| <b>CPU</b><br>2                           | <b>RAM (MB)</b><br>4096         | <b>Ethernets</b><br>4                  |
| <b>QEMU Version</b><br>tpl(default 2.4.0) | <b>QEMU Arch</b><br>tpl(x86_64) | <b>QEMU Nic</b><br>tpl(virtio-net-pci) |

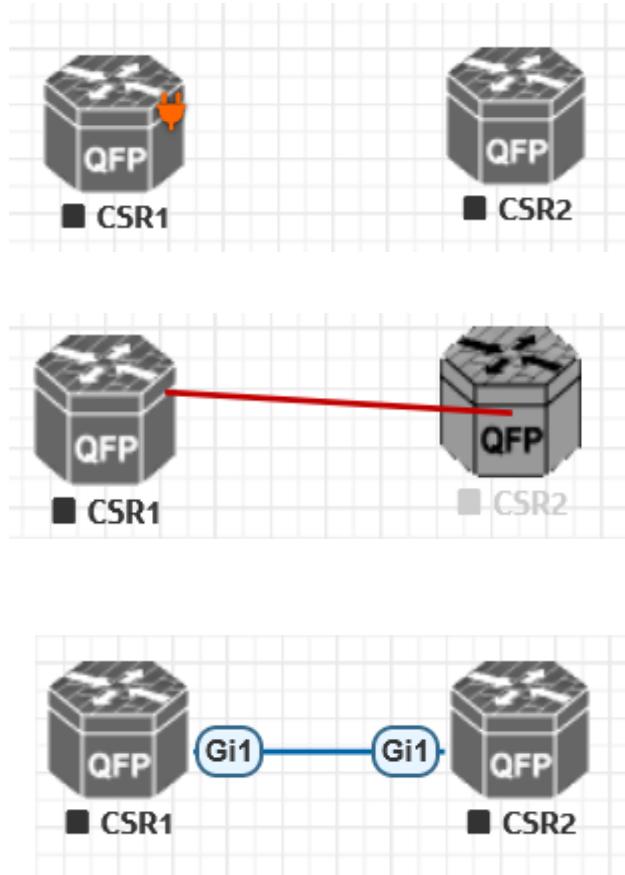
**QEMU custom options**  
-machine type=pc-1.0,accel=kvm -cpu qemu64,+ssse3,+sse4.1,+sse4.2,+x2apic,+aes

## 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

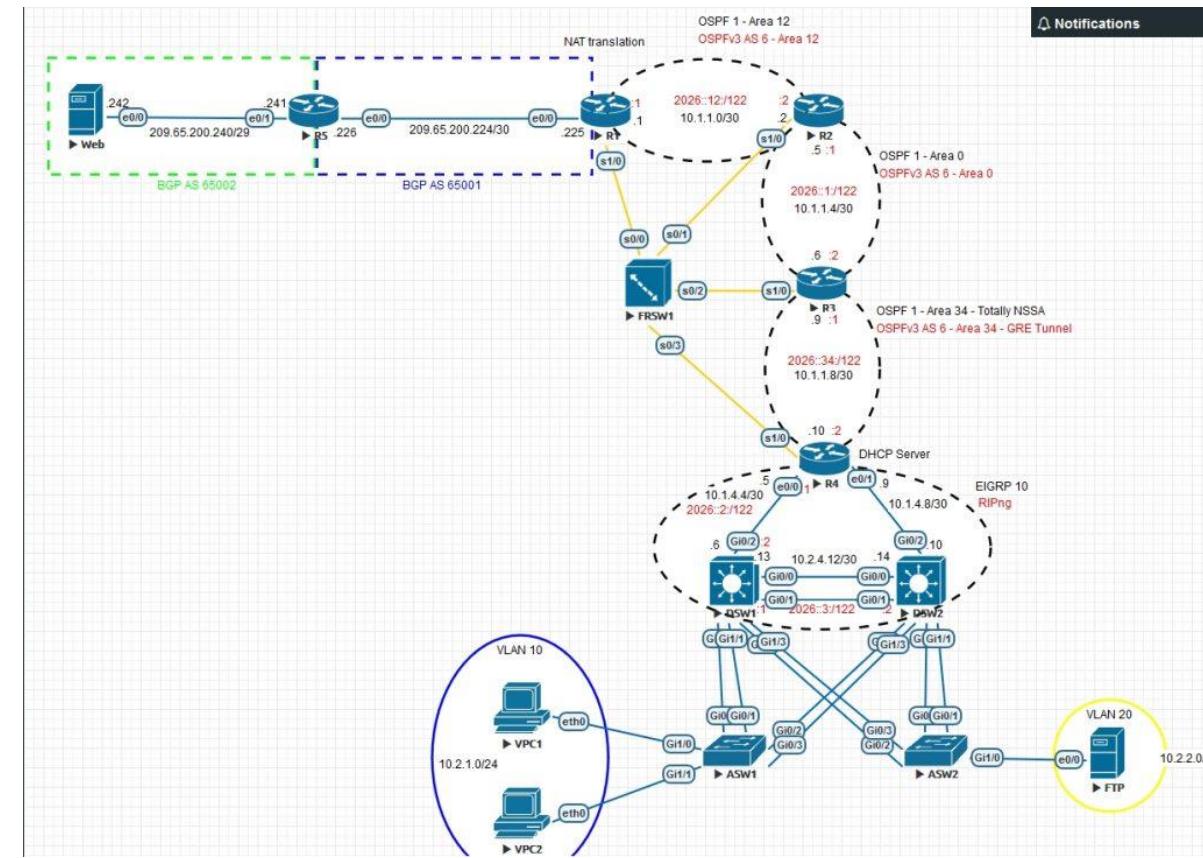
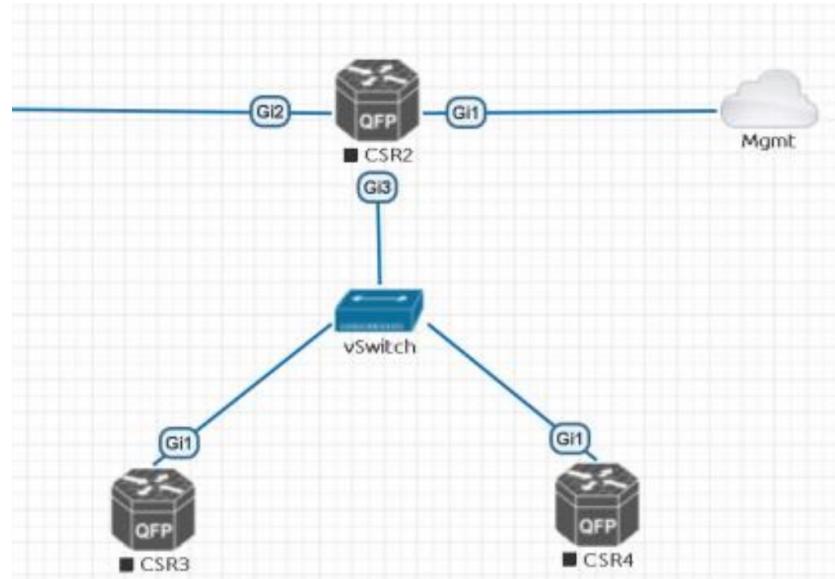
# Create Topologies

# Create Topologies

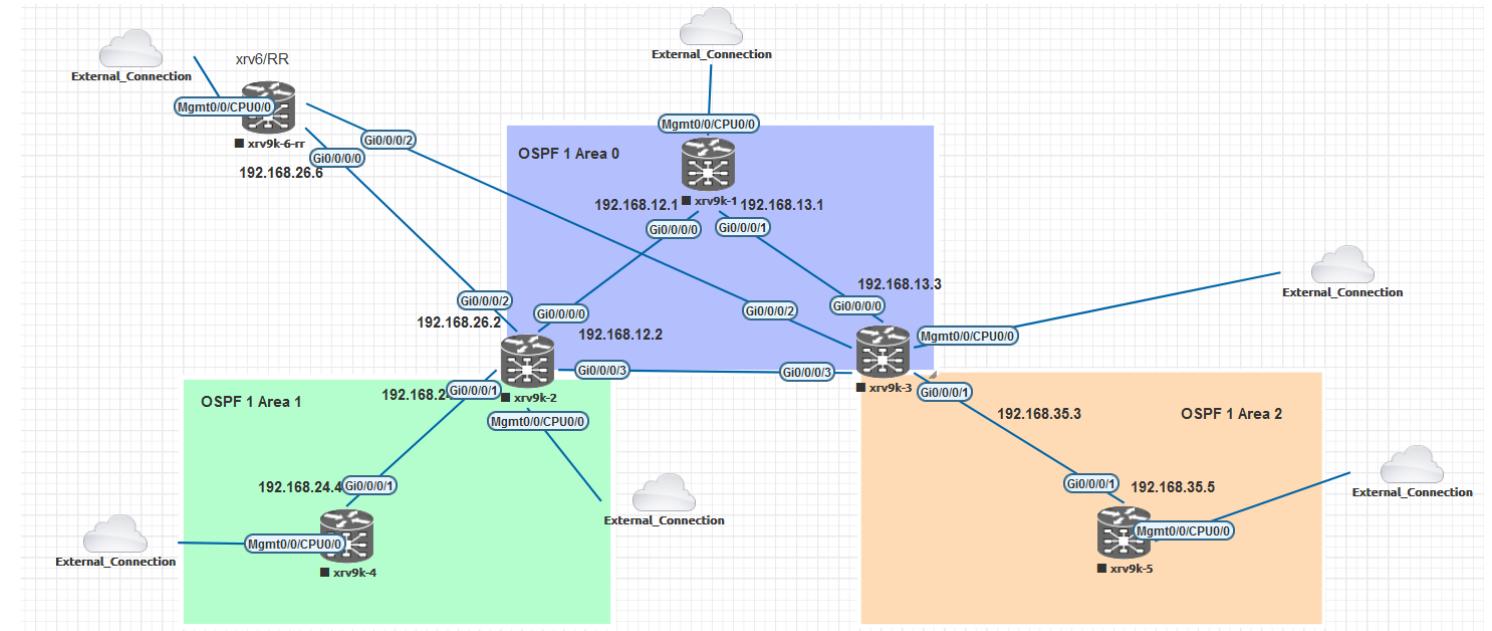
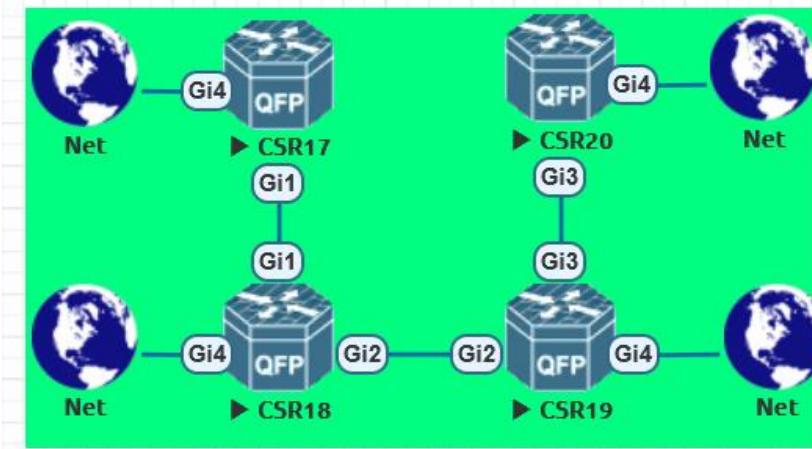


```
root@vSRX1> show configuration
system {
    host-name R1;
    root-authentication {
        encrypted-password "$zzz"; ## SECRET-DATA
    }
}
interfaces {
    ge-0/0/0 {
        unit 0 {
            family inet {
                address 10.0.0.1/24;
            }
        }
    }
}
security {
   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

# Create Topologies



# Create Topologies



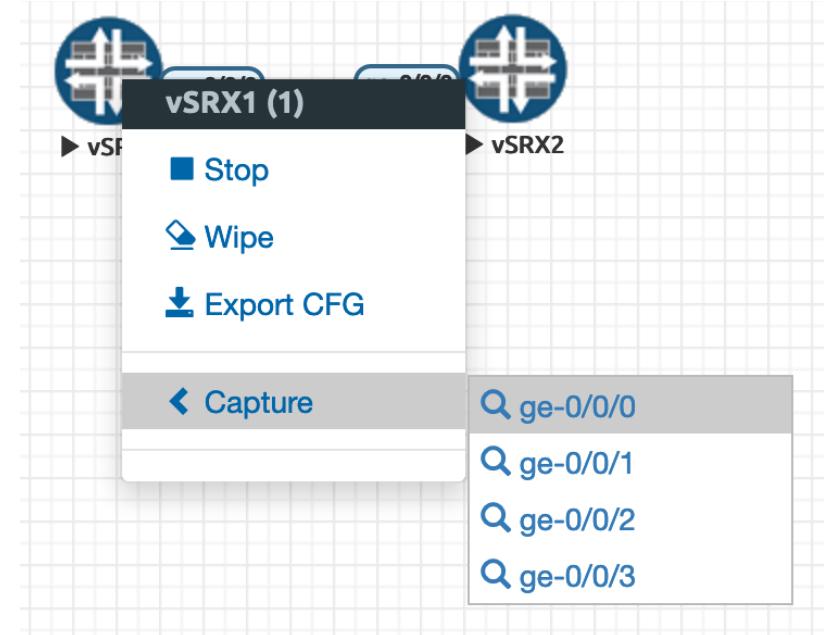
# Links information

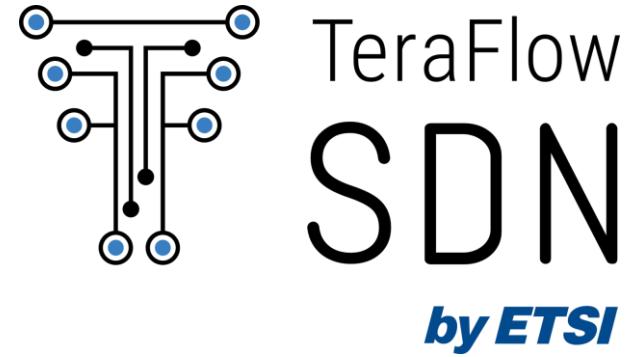
# Links information

```
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
```





Thank You all for  
your participation!