Proj 2

1. Only TCP
2. From internal network
3. Outbound to linux 1 -13,sparc 1 – 20
4. Port 10000 – 12000
5. NAT choose smallest and available port number among the flows

VM A

Table 1 🡪 show the rules to be used

Table 1 - 3 🡪 clear all existing rules ???

Table 4 – 5 🡪 redirect outbound and inbound TCP traffic

Input :

1. IP of public interface od VM A
2. LAN in network address of the private network
3. MASK is the subnet mask

TCP translation

Start form SYN end by four-way-handshake or RST

1. Outbound:
   1. IP - port table 有資料
      1. NAT program searaches
   2. IP - port table 冇資料 && outbound == SYN packet
      1. Add create new entry
   3. IP - port table 冇資料 && outbound != SYN packet
      1. Drop packet
   4. IP - port table 有資料 && outbound != SYN packet
      1. Use the previous port
   5. Modifies the IP and TCP header 🡪 forwards it
2. Inbound
   1. Match the inbound packet and the destination port
      1. Yes 🡪 modifies the IP & TCP header and sends it to the target VM
      2. No 🡪 drop packet
3. Connection monitoring
   1. Monitor four-way-handshake
   2. RST(reset packet) \*no need to validate the SEQ number
   3. Then, entry in NAT can be removed
4. Print all NAT mappings
   1. Show 4 fields:
      1. original source address
      2. original source port
      3. translated source address
      4. translate source port