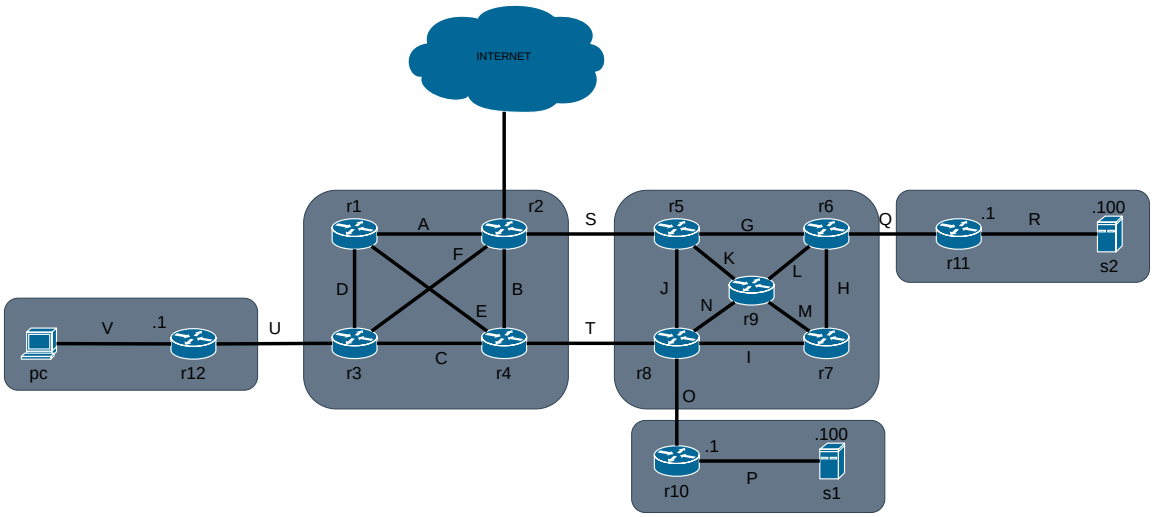
Second Homework: A topology

For MATRICOLA ending with 0-1



Collision domain	Subnet
A	1.0.1.2/31
B	1.0.1.4/31
C	1.0.1.6/31
D	1.0.1.8/31
E	1.0.1.10/31
F	1.0.1.12/31
G	1.0.1.14/31
H	1.0.1.16/31
I	1.0.1.18/31
J	1.0.1.20/31
K	1.0.1.22/31
L	1.0.1.24/31
M	1.0.1.26/31
N	1.0.1.28/31
O	1.0.1.30/31
P	10.0.0.0/24
Q	1.0.1.32/31
R	10.0.2.0/24
S	1.0.1.34/31
T	1.0.1.36/31
U	1.0.1.38/31
V	10.0.1.0/24

Given the topology in figure, reproduce it in netkit. You must use the VM names and addresses specified in the figure above.
For /31 subnets, the addresses are assigned with the following rule: the lower router number takes the even address, e.g. r1 takes 1.0.1.2 with respect to r2.

The maximum points are 6+1 and are assigned as follows:

- +0.5 points: host on R and P configured via /etc/network/interfaces
- +0.5 points: host on V configured via DHCP with r12 as DHCP server
- +1 point: OSPF **only** on routers in order to have dynamic routing. Respect the areas given in figure. Set up default gateways on routers to route trough r2 for default. Respect the areas given in figure.
- +1 points: Create a user called *user* with password *user* on every router and allow s2 to access the routers trough ssh via asymmetric authentication. (**This must be done at startup)**
- +1 point: configure SSH remote port forwarding (inside startup scripts) in order to redirect the port 80 of pc1 to the port 8000 of s1 (test it with netcat).
- +1 point: configure SSH local port forwarding (inside startup scripts) in order to redirect the port 123 of s2 to the port 8000 of s1 (test it with netcat).
- +1 point: configre a VPN from pc (client) to r11 (server). The CA for the VPN is s1. The address is the one used in lecture. For the /30 pair, use the one that you prefer from the allowed ones. Push the R subnet route.

Extra points:

- +1 point: After setting up the VPN, use r11 as default gateway for the traffic generated from pc.

Restart for all the daemons is required.