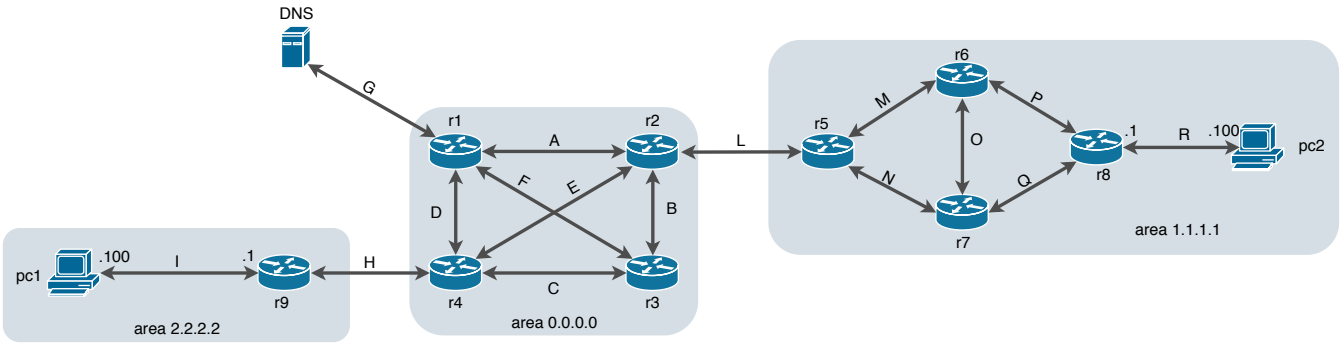
Netkit exam



Collision domain	Subnet
A	1.0.1.8/31
B	1.0.1.6/31
C	1.0.1.2/31
D	1.0.1.4/31
E	1.0.1.14/31
F	1.0.1.12/31
G	1.0.1.10/31
H	1.0.1.18/31
I	192.168.17.0/24
L	1.0.1.16/31
M	30.0.1.10/31
N	30.0.1.8/31
O	30.0.1.12/31
P	30.0.1.6/31
Q	30.0.1.20/31
R	10.0.3.0/24

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. DNS takes the odd address.

The maximum points are 22+2 and are assigned as follows:

- +3 points: lab created with folders and lab.conf
- +3 points: interfaces of every host configured via /etc/network/interfaces
- +6 points: OSPF **only** on routers in order to have dynamic routing. Respect the areas given in figure
- +8 points: Configure DNS as DNS server for the whole network, creating a domain *exam.org*. Every host (routers included) must be reachable by his hostname.exam.org, e.g. r1.exam.org must refer to r1. Every host must use DNS as DNS server.

Extra points:

- +2 point: Using OSPF costs, force the path from pc1 to pc2 trough: r9-r4-r3-r2-r5-r6-r8

Restart for all the daemons is required.