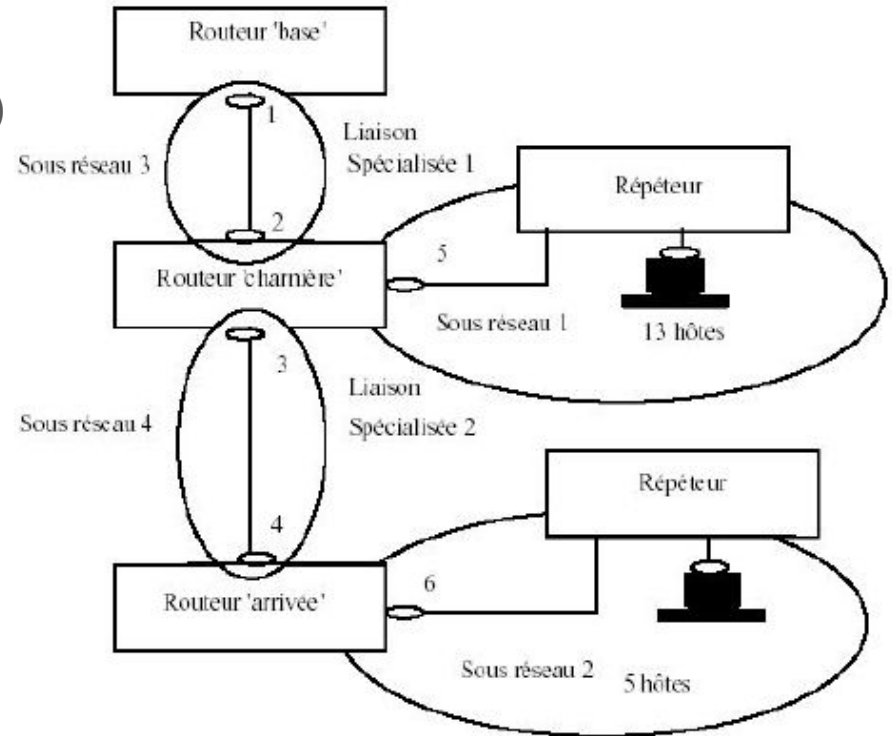


IP Networks Mini Project

Structure of network

- 4 subnetworks (Sous reséau)
- 2 dedicated links (Liaison specialisee)
- 3 routers (Routeur)
- repeaters (Répéteur)



Network Address	Mask	IP range	Broadcast Address
193.137.1.0	/27	193.137.1.1-193.137.1.30	193.137.1.31

Choice of IP addresses

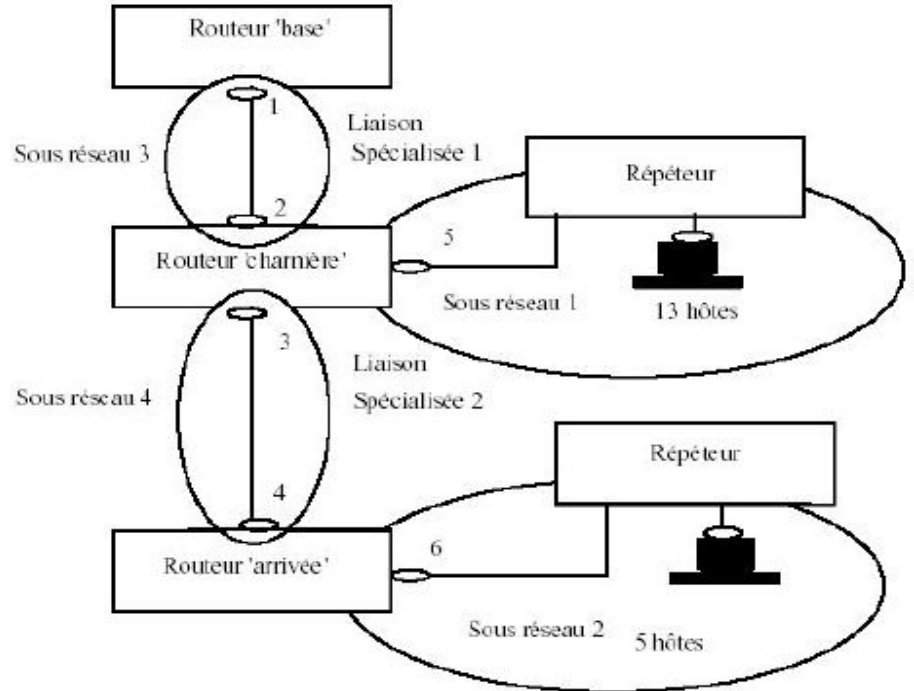
Table that illustrates the summary of assignment of addresses to our subnets

Subnet name	Network ID	Mask	IP range	Usable hosts	Broadcast ID
Subnetwork 3	193.137.1.0	/30	193.137.1.1-193.137.1.2	2	193.137.1.3
Subnetwork 4	193.137.1.4	/30	193.137.1.5-193.137.1.6	2	193.137.1.7
Subnetwork 2	193.137.1.8	/29	193.137.1.9-193.137.1.14	6	193.137.1.15
Subnetwork 1	193.137.1.16	/28	193.137.1.17-193.137.1.30	14	193.137.1.31

Routing tables

Table 1: Routing table of any host in Subnetwork 1

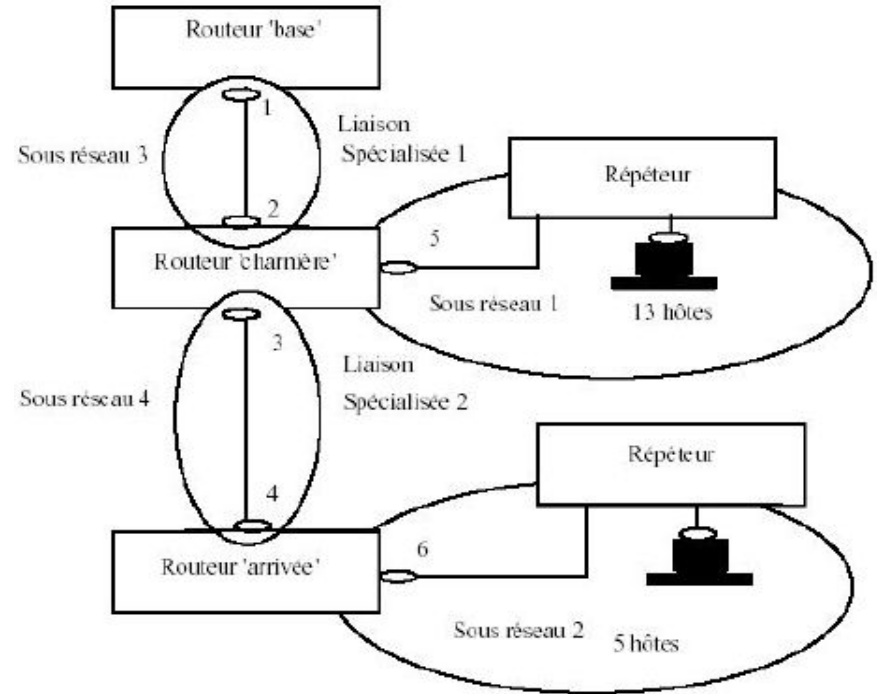
Destination	Mask	Gateway
193.137.1.0	/30	charniere
193.137.1.4	/30	charniere
193.137.1.8	/29	charniere
0.0.0.0	/0	charniere



Routing tables

Table 2: Routing table of router 'base'

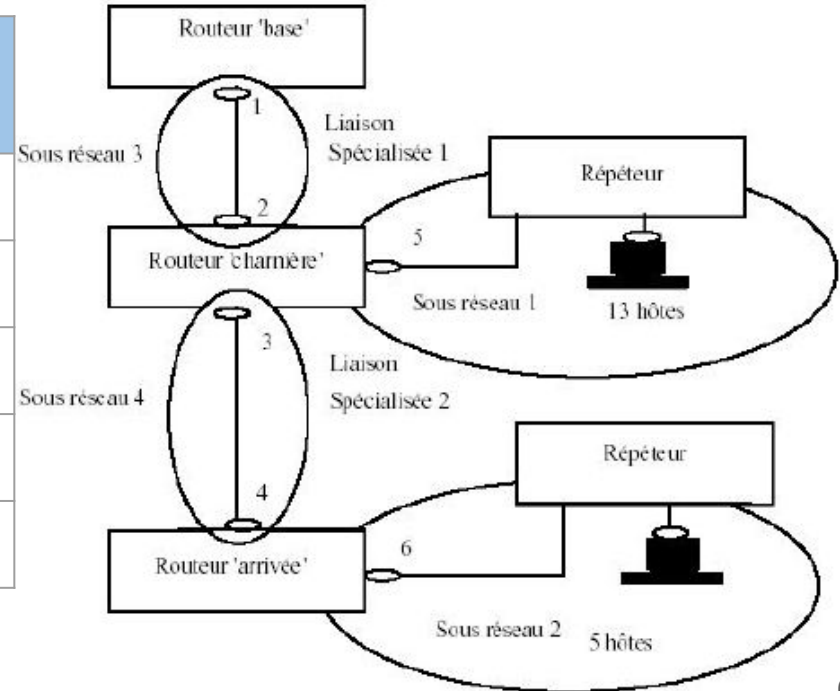
Destination	Mask	Gateway	Type
193.137.1.16	/28	charniere	remote
193.137.1.8	/29	charniere	remote
193.137.1.0	/30	-	local
193.137.1.4	/30	charniere	remote
0.0.0.0	/0	charniere	-



Routing tables

Table 3: Routing table of router 'charniere'

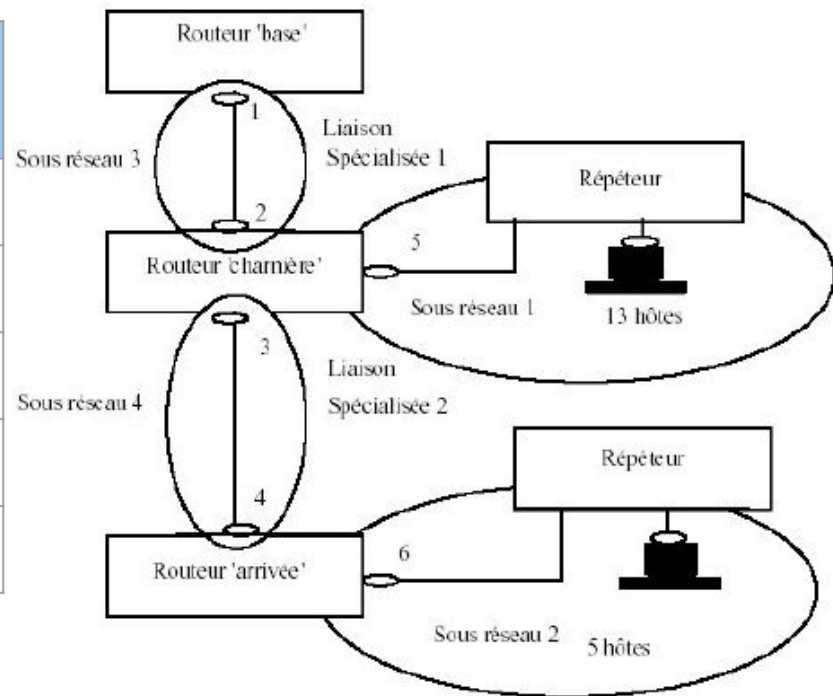
Destination	Mask	Gateway	Type	Interface
193.137.1.16	/28	-	local	5
193.137.1.8	/29	arrival	remote	3
193.137.1.0	/30	-	local	2
193.137.1.4	/30	-	local	3
0.0.0.0	/0	base	-	2

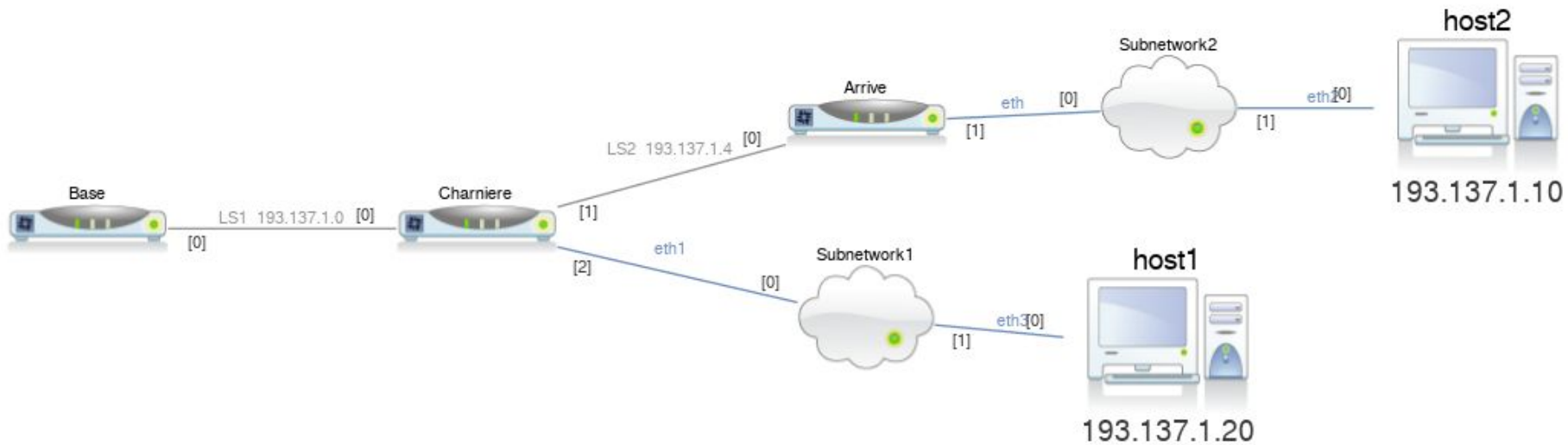


Routing tables

Table 4: Routing table of router 'arrivée'

Destination	Mask	Gateway	Type	Interface
193.137.1.16	/28	charniere	remote	4
193.137.1.8	/29	-	local	6
193.137.1.0	/30	charniere	remote	4
193.137.1.4	/30	-	local	4
0.0.0.0	/0	charniere	-	4





The screenshot displays the Mininet GUI interface. At the top, there are three windows showing the 'Welcome to guignol' message for different hosts: Charniere, Arrive, and Base. Each window shows the 'GNU/LINUX' logo and the 'Linux Version 3.2.64'. Below the welcome message, it states 'Built with Buildroot and adapted for Marionnet in November 2014 using pupisto/buildroot.sh' and 'Patched in June 2017'. It also provides the account 'root/root or student/student' and the login prompt 'Charniere login: '.

In the center, there is a network diagram showing three hosts (Base, Charniere, Arrive) connected to two subnetworks (Subnetwork1, Subnetwork2). The diagram includes IP addresses (193.137.1.0, 193.137.1.10, 193.137.1.20) and interface names (eth0, eth1, eth2). The hosts are labeled 'Base', 'Charniere', and 'Arrive'. The subnetworks are labeled 'Subnetwork1' and 'Subnetwork2'. The hosts are connected to the subnetworks via 'eth0' and 'eth1' interfaces. The subnetworks are connected to each other via 'eth2' interface.

At the bottom, there are three windows showing the 'DEBIAN' logo and the 'Linux Version 3.2.64' for hosts 'host1' and 'host2'. Each window shows the 'Compiled 01 Fri Nov 21 13:30:53 CET 2014' and '6483.96 BogoMips Total'. It also provides the account 'root/root or student/student' and the login prompt 'host1 login: '.

The left sidebar contains a 'Project' menu with 'Components' and 'Documents' options. Below this, there are icons for various components like 'Router', 'Host', and 'Subnetwork'. The 'Router' section shows 'Base' and 'Charniere' routers with their respective activity levels (TX/RX) and 'Always on top' checkboxes. The 'Host' section shows 'host1' and 'host2' hosts with their respective activity levels and 'Always on top' checkboxes. The 'Subnetwork' section shows 'Subnetwork1' and 'Subnetwork2' subnetworks with their respective activity levels and 'Always on top' checkboxes.