

Figure 1 :

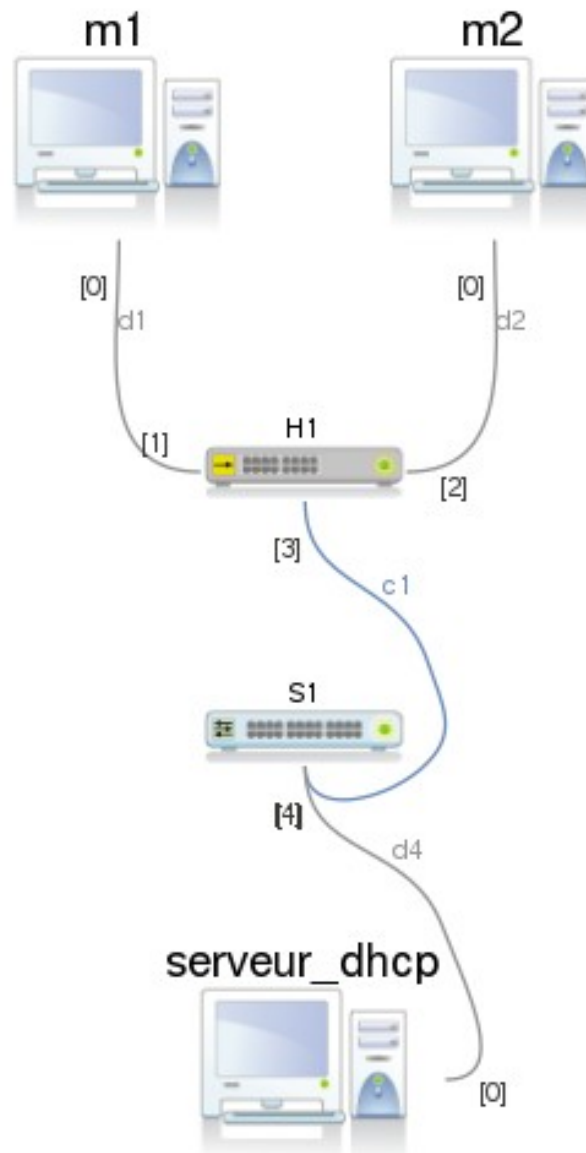


Figure 2 :

```
serveur_dhcp (machine-debian-lenny-sid-2008)  -  □  x
log-facility local7;

# No service will be given on this subnet, but declaring it helps the
# DHCP server to understand the network topology.

#subnet 10.152.187.0 netmask 255.255.255.0 {
#}

# This is a very basic subnet declaration.

# -----
# ----- my modification:
subnet 192.168.1.0 netmask 255.255.255.000 {
    range 192.168.1.1 192.168.1.3;
}

#
#
#subnet 10.254.239.0 netmask 255.255.255.224 {
#    range 10.254.239.10 10.254.239.20;
#    option routers rtr-239-0-1.example.org, rtr-239-0-2.example.org;
#}
44,0-1 26%
```

Figure 3 :

```

serveur_dhcp (machine-debian-lenny-sid-2008)
Dec 4 09:11:58 m1 kernel: Hiding /proc/net/dev_snmp6/eth42...
Dec 4 09:11:58 m1 kernel: Ok, eth42 was ghostified.
Dec 4 09:12:05 m1 /USR/SBIN/CRON[2248]: (root) CMD (/usr/bin/test -x /usr/sbin/autodns-dhcp_cron && /usr/sbin/autodns-dhcp_cron)
Dec 4 09:12:09 m1 kernel: eth42: no IPv6 routers present
Dec 4 09:13:01 m1 /USR/SBIN/CRON[2252]: (root) CMD (/usr/bin/test -x /usr/sbin/autodns-dhcp_cron && /usr/sbin/autodns-dhcp_cron)
Dec 4 09:14:02 m1 /USR/SBIN/CRON[2263]: (root) CMD (/usr/bin/test -x /usr/sbin/autodns-dhcp_cron && /usr/sbin/autodns-dhcp_cron)
Dec 4 09:14:47 m1 dhcpd: Internet Systems Consortium DHCP Server V3.1.1
Dec 4 09:14:47 m1 dhcpd: Copyright 2004-2008 Internet Systems Consortium.
Dec 4 09:14:47 m1 dhcpd: All rights reserved.
Dec 4 09:14:47 m1 dhcpd: For info, please visit http://www.isc.org/sw/dhcp/
Dec 4 09:14:47 m1 dhcpd: Internet Systems Consortium DHCP Server V3.1.1
Dec 4 09:14:47 m1 dhcpd: Copyright 2004-2008 Internet Systems Consortium.
Dec 4 09:14:47 m1 dhcpd: All rights reserved.
Dec 4 09:14:47 m1 dhcpd: For info, please visit http://www.isc.org/sw/dhcp/
Dec 4 09:14:47 m1 dhcpd: Wrote 0 leases to leases file.
Dec 4 09:14:48 m1 dhcpd:
Dec 4 09:14:48 m1 dhcpd: Not configured to listen on any interfaces!
:

```

Figure 4 :

```

Internet Systems Consortium DHCP Client V3.1.1
Copyright 2004-2008 Internet Systems Consortium.
All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/

ADDRCONF(NETDEV_UP): bond0: link is not ready
Listening on LPF/dummy0/de:8d:5b:7d:72:e4
Sending on   LPF/dummy0/de:8d:5b:7d:72:e4
Listening on LPF/bond0/00:00:00:00:00:00
Sending on   LPF/bond0/00:00:00:00:00:00
Listening on LPF/eth0/02:04:06:fe:b2:99
Sending on   LPF/eth0/02:04:06:fe:b2:99
Sending on   Socket/fallback
DHCPDISCOVER on dummy0 to 255.255.255.255 port 67 interval 8
DHCPDISCOVER on bond0 to 255.255.255.255 port 67 interval 8
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 6
DHCPOFFER from 192.168.1.250
DHCPREQUEST on eth0 to 255.255.255.255 port 67
DHCPACK from 192.168.1.250
bound to 192.168.1.1 -- renewal in 285 seconds.

```

Figure 5 :

```

serveur_dhcp (machine-debian-lenny-sid-20...
# The format of this file is documented in the dhcpd.leases(5) manual page.
# This lease file was written by isc-dhcp-V3.1.1

lease 192.168.1.1 {
    starts 1 2017/12/04 08:27:12;
    ends 1 2017/12/04 08:37:12;
    cltt 1 2017/12/04 08:27:12;
    binding state active;
    next binding state free;
    hardware ethernet 02:04:06:fe:b2:99;
}
lease 192.168.1.1 {
    starts 1 2017/12/04 08:31:57;
    ends 1 2017/12/04 08:41:57;
    cltt 1 2017/12/04 08:31:57;
    binding state active;
    next binding state free;
    hardware ethernet 02:04:06:fe:b2:99;
}
~
~
(END)

```

Figure 6 :

```
m1 (machine-debian-lenny-sid-2008) - □ x
m1:~# ifconfig
bond0    Link encap:Ethernet  HWaddr 00:00:00:00:00:00
          UP BROADCAST MASTER MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

dummy0   Link encap:Ethernet  HWaddr de:8d:5b:7d:72:e4
          inet6 addr: fe80::dc8d:5bff:fe7d:72e4/64 Scope:Link
          UP BROADCAST RUNNING NOARP  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:33 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:6440 (6.2 KiB)

eth0     Link encap:Ethernet  HWaddr 02:04:06:fe:b2:99
          inet addr:192.168.1.1  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::4:6ff:fe:b299/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:175 errors:0 dropped:0 overruns:0 frame:0
          TX packets:99 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:4994 (4.8 KiB)  TX bytes:5094 (4.9 KiB)
          Interrupt:5

lo       Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:88 errors:0 dropped:0 overruns:0 frame:0
          TX packets:88 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:2000 (1.9 KiB)  TX bytes:2000 (1.9 KiB)

m1:~#
```

Figure 7 :

```
m1 (machine-debian-lenny-sid-2008) - □ x
m1:~# tshark
Running as user "root" and group "root". This could be dangerous.
Capturing on eth0
device eth0 entered promiscuous mode
 0.000000 BbnInter_fe:b2:99 -> Broadcast    AoE Query Config Information Request
 0.647054 BbnInter_73:7a:34 -> Broadcast    AoE Query Config Information Request
16.396673      0.0.0.0 -> 255.255.255.255 DHCP DHCP Discover - Transaction ID 0x
766c33f
16.418021 BbnInter_8c:06:7a -> Broadcast    ARP Who has 192.168.1.2? Tell 192.1
8.1.250
17.380603 192.168.1.250 -> 192.168.1.2 DHCP DHCP Offer    - Transaction ID 0xa7
6c33f
17.381145      0.0.0.0 -> 255.255.255.255 DHCP DHCP Request - Transaction ID 0x
766c33f
17.422169 BbnInter_8c:06:7a -> Broadcast    ARP Who has 192.168.1.2? Tell 192.1
8.1.250
17.674038 192.168.1.250 -> 192.168.1.2 DHCP DHCP ACK      - Transaction ID 0xa7
6c33f
18.418492 BbnInter_8c:06:7a -> Broadcast    ARP Who has 192.168.1.2? Tell 192.1
8.1.250
18.418922 BbnInter_73:7a:34 -> BbnInter_8c:06:7a ARP 192.168.1.2 is at 02:04:06:
3:7a:34
18.419679 192.168.1.250 -> 192.168.1.2 ICMP Echo (ping) request
18.419703 192.168.1.2 -> 192.168.1.250 ICMP Echo (ping) reply
23.425690 BbnInter_73:7a:34 -> BbnInter_8c:06:7a ARP Who has 192.168.1.250? Tel
192.168.1.2
23.426062 BbnInter_8c:06:7a -> BbnInter_73:7a:34 ARP 192.168.1.250 is at 02:04:0
:8c:06:7a
31.105529 BbnInter_8c:06:7a -> Broadcast    AoE Query Config Information Request
█
```

Figure 8 :

```
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
m2:~# dhclient
Internet Systems Consortium DHCP Client V3.1.1
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All rights reserved.
For info, please visit http://www.isc.org/sw/dhcp/

ADDRCONF(NETDEV_UP): bond0: link is not ready
Listening on LPF/dummy0/fa:1f:11:82:db:68
Sending on   LPF/dummy0/fa:1f:11:82:db:68
Listening on LPF/bond0/00:00:00:00:00:00
Sending on   LPF/bond0/00:00:00:00:00:00
Listening on LPF/eth0/02:04:06:73:7a:34
Sending on   LPF/eth0/02:04:06:73:7a:34
Sending on   Socket/fallback
DHCPDISCOVER on dummy0 to 255.255.255.255 port 67 interval 5
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 7
DHCPOFFER from 192.168.1.250
DHCPREQUEST on eth0 to 255.255.255.255 port 67
DHCPACK from 192.168.1.250
bound to 192.168.1.2 -- renewal in 244 seconds.
m2:~# █
```

