

TP1 – Commandes de Base

Ex 1)

1)

```
kbalavoine@tati:~$ /sbin/ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9000
    inet 10.0.207.15  netmask 255.255.255.0  broadcast 10.0.207.255
    inet6 2001:660:6101:800::207::15  prefixlen 80  scopeid 0x0<global>
    inet6 fe80::32d0:42ff:fef5:c0b8  prefixlen 64  scopeid 0x20<link>
    ether 30:d0:42:f5:c0:b8  txqueuelen 1000  (Ethernet)
    RX packets 90867  bytes 181489108 (173.0 MiB)
    RX errors 0  dropped 1  overruns 0  frame 0
    TX packets 65646  bytes 60808215 (57.9 MiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
    device interrupt 16  memory 0x70280000-702a0000

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Boucle locale)
    RX packets 911  bytes 136844 (133.6 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 911  bytes 136844 (133.6 KiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

Ici, l'IPv4 est appelé inet, et : 10.0.207.15

IPv6 : fe80::32d0:42ff:fef5:c0b8

2)

```
kbalavoine@tati:~$ ipcalc 10.0.207.15/24
Address:    10.0.207.15          00001010.00000000.11001111. 00001111
Netmask:    255.255.255.0 = 24   11111111.11111111.11111111. 00000000
Wildcard:   0.0.0.255           00000000.00000000.00000000. 11111111
=>
Network:    10.0.207.0/24        00001010.00000000.11001111. 00000000
HostMin:    10.0.207.1           00001010.00000000.11001111. 00000001
HostMax:    10.0.207.254         00001010.00000000.11001111. 11111110
Broadcast:  10.0.207.255         00001010.00000000.11001111. 11111111
Hosts/Net:  254                  Class A, Private Internet
```

```

kbalavoine@tati:~$ ipcalc 127.0.0.1/8
Address:    127.0.0.1          01111111. 00000000.00000000.00000001
Netmask:    255.0.0.0 = 8      11111111. 00000000.00000000.00000000
Wildcard:   0.255.255.255      00000000. 11111111.11111111.11111111
=>
Network:    127.0.0.0/8       01111111. 00000000.00000000.00000000
HostMin:    127.0.0.1         01111111. 00000000.00000000.00000001
HostMax:    127.255.255.254    01111111. 11111111.11111111.11111110
Broadcast:  127.255.255.255    01111111. 11111111.11111111.11111111
Hosts/Net:  16777214          Class A, Loopback

```

3) lo semble être lié au host et à l'interface locale

4) lo a un MTU de 65536 et eth0 a un MTU de 9000. C'est dû au fait que eth0 marche sur le réseau tandis que lo marche sur la machine.

5) Ping de ma machine :

```

kbalavoine@tati:~$ ping 10.0.207.15
PING 10.0.207.15 (10.0.207.15) 56(84) bytes of data.
64 bytes from 10.0.207.15: icmp_seq=1 ttl=64 time=0.029 ms
64 bytes from 10.0.207.15: icmp_seq=2 ttl=64 time=0.033 ms
64 bytes from 10.0.207.15: icmp_seq=3 ttl=64 time=0.026 ms
kbalavoine@tati:~$ ping fe80::32d0:42ff:fe5:c0b8
PING fe80::32d0:42ff:fe5:c0b8(fe80::32d0:42ff:fe5:c0b8) 56 data bytes
64 bytes from fe80::32d0:42ff:fe5:c0b8%eth0: icmp_seq=1 ttl=64 time=0.047 ms
64 bytes from fe80::32d0:42ff:fe5:c0b8%eth0: icmp_seq=2 ttl=64 time=0.038 ms
64 bytes from fe80::32d0:42ff:fe5:c0b8%eth0: icmp_seq=3 ttl=64 time=0.023 ms
64 bytes from fe80::32d0:42ff:fe5:c0b8%eth0: icmp_seq=4 ttl=64 time=0.038 ms

```

Ping de la machine du voisin :

```

kbalavoine@tati:~$ ping 10.0.207.19
PING 10.0.207.19 (10.0.207.19) 56(84) bytes of data.
64 bytes from 10.0.207.19: icmp_seq=1 ttl=64 time=0.179 ms
64 bytes from 10.0.207.19: icmp_seq=2 ttl=64 time=0.195 ms
64 bytes from 10.0.207.19: icmp_seq=3 ttl=64 time=0.216 ms
kbalavoine@tati:~$ ping fe80::2be:43ff:fe94:958a
PING fe80::2be:43ff:fe94:958a(fe80::2be:43ff:fe94:958a) 56 data bytes
64 bytes from fe80::2be:43ff:fe94:958a%eth0: icmp_seq=1 ttl=25 time=0.219 ms
64 bytes from fe80::2be:43ff:fe94:958a%eth0: icmp_seq=2 ttl=25 time=0.218 ms
64 bytes from fe80::2be:43ff:fe94:958a%eth0: icmp_seq=3 ttl=25 time=0.229 ms

```

Ex 2)

1) Le port 12345 est ouvert :

```

tcp        0      0 0.0.0.0:12345          0.0.0.0:*              LISTEN

```

3) Le port 12345 est ouvert chez le voisin :

tcp	0	0	10.0.207.15:57708	10.0.207.19:12345	ESTABLISHED
-----	---	---	-------------------	-------------------	-------------

4) Chat entre nos deux pc :

```
kbalavoine@tati:~$ nc 10.0.207.19 12345
a
ta
mmm donut
kakyoin
```

EX 3)

1) le pc de mon voisin :

vonsternberg	ether	00:be:43:94:95:8a	C	eth0
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adresse du routeur :

_gateway	ether	58:20:b1:b1:23:00	C	eth0
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10.0.9.254	ether	58:20:b1:b1:23:00	C	eth0
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2) universe est une pc qui n'apparaît pas dans le tableau ARP :

```
kbalavoine@visual:~$ ping -4 universe
PING (10.0.9.25) 56(84) bytes of data.
From visual.emi.u-bordeaux.fr (10.0.9.27) icmp_seq=1 Destination Host Unreachable
From visual.emi.u-bordeaux.fr (10.0.9.27) icmp_seq=2 Destination Host Unreachable
From visual.emi.u-bordeaux.fr (10.0.9.27) icmp_seq=3 Destination Host Unreachable
```

```
kbalavoine@visual:~$ /usr/sbin/arp
```

Adresse	TypeMap	AdresseMat	Indicateurs	Iface
verone	ether	d8:9e:f3:10:49:e4	C	eth0
excalibur	ether	d8:9e:f3:0f:92:dd	C	eth0
_gateway	ether	58:20:b1:b1:23:00	C	eth0
10.0.9.25		(incomplete)		eth0

on observe universe qui apparaît mais est incomplet.

3) ip neigh ls :

```
kbalavoine@visual:~$ ip neigh ls
10.0.9.26 dev eth0 lladdr d8:9e:f3:10:49:e4 REACHABLE
10.0.9.9 dev eth0 lladdr d8:9e:f3:0f:92:dd REACHABLE
10.0.9.254 dev eth0 lladdr 58:20:b1:b1:23:00 REACHABLE
10.0.9.25 dev eth0 FAILED
2001:660:6101:800:9::ffff dev eth0 lladdr 58:20:b1:b1:23:00 router STALE
fe80::da9e:f3ff:fe10:49e4 dev eth0 lladdr d8:9e:f3:10:49:e4 STALE
2001:660:6101:800:9::26 dev eth0 lladdr d8:9e:f3:10:49:e4 STALE
fe80::5a20:b1ff:feb1:2300 dev eth0 lladdr 58:20:b1:b1:23:00 router STALE
```

On observe encore que universe est incomplet et que son IPv6 est inexistante.

4)

```
kbalavoine@visual:~$ ping -4 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=113 time=9.84 ms
```

```
kbalavoine@visual:~$ ping -4 10.0.252.4
PING 10.0.252.4 (10.0.252.4) 56(84) bytes of data.
From 10.0.253.247 icmp_seq=1 Time to live exceeded
```

Ce sont des adresses spéciales, donc elles sont cachées. Elles ne semblent pas avoir d'IPv6.

EX 5)

1)

```
#host cresus dionysos bromios host ldap-ad dionysos bromios cre-
sus
```

```
kbalavoine@octodurum:~$ ping -4 cresus
PING (10.0.220.10) 56(84) bytes of data.
kbalavoine@octodurum:~$ ping -4 dionysos
PING (10.0.220.25) 56(84) bytes of data.
kbalavoine@octodurum:~$ ping -4 bromios
PING (10.0.220.11) 56(84) bytes of data.
```

2)

ldaps	636/tcp		# LDAP over SSL
http	80/tcp	www	# WorldWideWeb HTTP
ssh	22/tcp		# SSH Remote Login Protocol
x11	6000/tcp	x11-0	# X Window System

3)

```
kbalavoine@octodurum:~$ df ~  
Sys. de fichiers      blocs de 1K Utilisé Disponible Uti% Monté sur  
unityaccount:/account  9437184 4225920   5211264  45% /autofs/unityaccount/cremi
```

Nom du serveur :

Chemin sur le serveur : unityaccount:/account

Chemin sur la machine : /autofs/unityaccount/cremi