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Praktikum 2

- Buat Alpine 4 dan 5
- Setup pada alpine-4 dan 5 dengan cara
 - Pada alpine-4:
 - `ifconfig eth0 192.168.122.97 netmask 255.255.255.0 up`
 - `route add default gw 192.168.122.1`
 - `echo "nameserver 192.168.122.1" > /etc/resolv.conf`
 - Pada alpine-5:
 - `ifconfig eth0 192.168.122.113 netmask 255.255.255.0 up`
 - `route add default gw 192.168.122.1`
 - `echo "nameserver 192.168.122.1" > /etc/resolv.conf`
- Hasil code pada broadcast_serverudp.py

```
progjar2 > praktikum_udp2 > broadcast_serverudp.py > ...
1  import socket
2
3  SERVER_IP = '192.168.1.1'
4  SERVER_PORT = 5003
5
6  sck = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
7  sck.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEPORT, 1)
8  sck.setsockopt(socket.SOL_SOCKET, socket.SO_BROADCAST, 1)
9
10 sck.bind(("", SERVER_PORT))
11
12 while True:
13     data, addr = sck.recvfrom(1024)
14     print(addr)
15     print("Recieved ", data)
16     print("Sent By : " , addr)
```

- Hasil code pada broadcast_clientudp.py

```

progjar2 > praktikum_udp2 > broadcast_clientudp.py > ...
1  import socket
2  import time
3
4  TARGET_IP = '192.168.122.250'
5  TARGET_PORT = 5003
6
7  sck = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
8  sck.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEPORT, 1)
9  sck.setsockopt(socket.SOL_SOCKET, socket.SO_BROADCAST, 1)
10
11 number = 0
12 while True:
13     number = number+1
14     msg = " BROADCAST - Showing Number - {} " . format(number)
15     print(msg)
16     sck.sendto(msg.encode(), ("255.255.255.255", TARGET_PORT))
17     time.sleep(1)

```

- Kasus 1 – client di run terlebih dahulu
- Hasil pada alpine-1 sebagai client

```

< console      alpine-1  X      alpine-2  X      >  -  X
alpine-1 console is now available... Press RETURN to get started.
udhcpd (v1.24.2) started
Sending discover...
Sending discover...
Sending discover...
Sending discover...
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # python3 broadcast_clientudp.py
BROADCAST - Showing Number - 1
BROADCAST - Showing Number - 2
BROADCAST - Showing Number - 3
BROADCAST - Showing Number - 4
BROADCAST - Showing Number - 5
BROADCAST - Showing Number - 6
BROADCAST - Showing Number - 7
BROADCAST - Showing Number - 8
BROADCAST - Showing Number - 9
BROADCAST - Showing Number - 10
BROADCAST - Showing Number - 11
BROADCAST - Showing Number - 12
BROADCAST - Showing Number - 13

```

- Hasil pada alpine-2 sebagai server

```
< insolo      alpine-1  X      alpine-2  X      >  -  X
Sending discover...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # python3 broadcast_serverudp.py
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 8 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 9 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 10 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 11 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 12 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 13 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
```

- Hasil pada alpine-3 sebagai server

```
< 1  X      alpine-2  X      alpine-3  X      >  -  X
etc          opt          sys
gens3        proc         tmp
gens3volumes root         usr
home         run          var
/ # python3 broadcast_serverudp.py
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 14 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 15 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 16 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 17 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 18 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Received b' BROADCAST - Showing Number - 19 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
```

- Hasil pada alpine-4 sebagai server

```
< x alpine-3 x alpine-4 x > - x
1 packets transmitted, 1 packets received, 0% packet loss
round-trip min/avg/max = 40.857/40.857/40.857 ms
/ # nano broadcast_serverudp.py
/ # python3 broadcast_serverudp.py
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 21 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 22 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 23 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 24 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 25 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 26 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 27 '
```

- Hasil pada alpine-5 sebagai server

```
< alpine-3 x alpine-4 x alpine-5 x > - x
alpine-5 console is now available... Press RETURN to get started.
ok
/ # ifconfig eth0 192.168.122.113 netmask 255.255.255.0 up
/ # route add default gw 192.168.122.1
/ # echo "nameserver 192.168.122.1" > /etc/resolv.conf
/ # nano broadcast_serverudp.py
/ # python3 broadcast_serverudp.py
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 29 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 30 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 31 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 32 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 33 '
Sent By : ('192.168.122.237', 44305)
('192.168.122.237', 44305)
Recieved b' BROADCAST - Showing Number - 34 '
```

- Kasus 2 – Server di run terlebih dahulu
- Hasil pada alpine-1 sebagai client

```
< |le      alpine-1  X      alpine-2  X      alp  >  -  X

/ # python3 broadcast_clientudp.py
BROADCAST - Showing Number - 1
BROADCAST - Showing Number - 2
BROADCAST - Showing Number - 3
BROADCAST - Showing Number - 4
BROADCAST - Showing Number - 5
BROADCAST - Showing Number - 6
BROADCAST - Showing Number - 7
BROADCAST - Showing Number - 8
BROADCAST - Showing Number - 9
BROADCAST - Showing Number - 10
BROADCAST - Showing Number - 11
BROADCAST - Showing Number - 12
BROADCAST - Showing Number - 13
BROADCAST - Showing Number - 14
BROADCAST - Showing Number - 15
BROADCAST - Showing Number - 16
BROADCAST - Showing Number - 17
BROADCAST - Showing Number - 18
BROADCAST - Showing Number - 19
BROADCAST - Showing Number - 20
BROADCAST - Showing Number - 21
```

- Hasil pada alpine-2 sebagai server

```
< |le      alpine-1  X      alpine-2  X      alp  >  -

^ZTraceback (most recent call last):
  File "broadcast_serverudp.py", line 13, in <module>
    data, addr = sock.recvfrom(1024)
KeyboardInterrupt

/ # python3 broadcast_serverudp.py
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 1 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 2 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 3 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 4 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 5 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 6 '
Sent By : ('192.168.122.237', 38736)
```

- Hasil pada alpine-3 sebagai server

```
< x alpine-2 x alpine-3 x > - x
File "broadcast_serverudp.py", line 13, in <module>
    data, addr = sck.recvfrom(1024)
KeyboardInterrupt

/ # python3 broadcast_serverudp.py
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 1 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 2 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 3 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 4 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 5 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 6 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
```

- Hasil pada alpine-4 sebagai server

```
< x alpine-3 x alpine-4 x > - x
File "broadcast_serverudp.py", line 13, in <module>
    data, addr = sck.recvfrom(1024)
KeyboardInterrupt

/ # python3 broadcast_serverudp.py
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 1 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 2 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 3 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 4 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 5 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 6 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
```

- Hasil pada alpine-5 sebagai server

```
< alpine-3 x alpine-4 x alpine-5 x > - x
File "broadcast_serverudp.py", line 13, in <module>
    data, addr = sck.recvfrom(1024)
KeyboardInterrupt

/ # python3 broadcast_serverudp.py
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 1 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 2 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 3 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 4 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 5 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
Recieved b' BROADCAST - Showing Number - 6 '
Sent By : ('192.168.122.237', 38736)
('192.168.122.237', 38736)
```