

Mengambil IP dari alpine-1 untuk mengganti isi variable Target_IP pada chat_cli.py dan bind socket pada server_thread_chat.py karena alpine-1 akan menjadi tempat server dijalankan

```
praktikum x alpine-1 x alpine-2 x alpine-3
192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/f8670367-7a09-4fa3-9
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 select for 192.168.122.251...
Sending select for 192.168.122.251...
Sending select for 192.168.122.251...
Sending select for 192.168.122.251...
Sending select for 192.168.122.251...
udhcpd failed to get a DHCP lease
No lease, forking to background
ok
/ # ifconfig
eth0      Link encap:Ethernet  HWaddr 42:D5:EC:3C:BB:DB
          inet addr:192.168.122.251  Bcast:192.168.122.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:182 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:24276 (23.7 KiB)  TX bytes:3984 (3.8 KiB)

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:65536  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:1000
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

/ #
```

```
chat_cli.py x server_thread_chat.py
1 import socket
2 import os
3 import json
4
5 TARGET_IP = "192.168.122.251"
6 TARGET_PORT = 8889
7
8
9 class ChatClient:
10     def __init__(self):
11         self.sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
12         self.server_address = (TARGET_IP, TARGET_PORT)
13         self.sock.connect(self.server_address)
14         self.tokenid = ""
15     def proses(self, cmdline):
16         j = cmdline.split(" ")
17         try:
18             command = j[0].strip()
19             if (command == "auth"):
```

```
38 def __init__(self):
39     self.the_clients = []
40     self.my_socket = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
41     self.my_socket.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
42     threading.Thread.__init__(self)
43
44     def run(self):
45         self.my_socket.bind(('192.168.122.251', 8889))
46         self.my_socket.listen(1)
47         while True:
48             self.connection, self.client_address = self.my_socket.accept()
49             logging.warning("connection from {}".format(self.client_address))
50
51             clt = ProcessTheClient(self.connection, self.client_address)
52             clt.start()
53             self.the_clients.append(clt)
54
55 def main():
56     svr = Server()
57     svr.start()
```

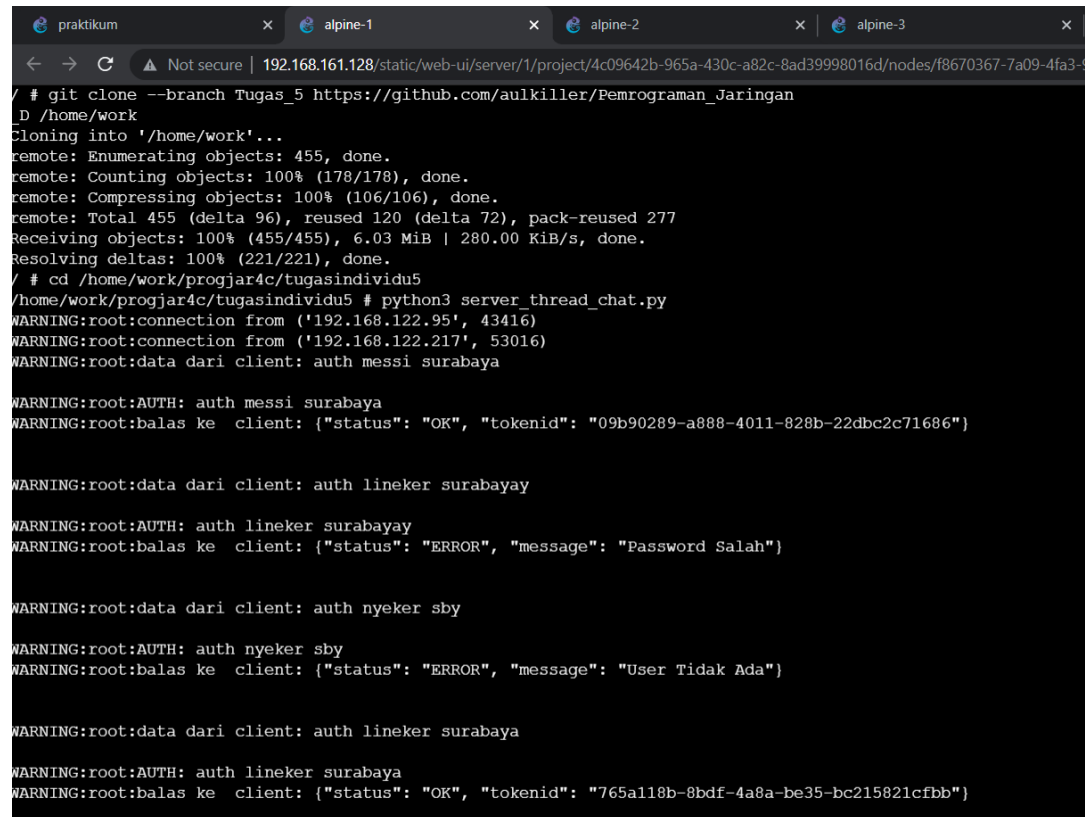
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Setelah menjalankan server di alpine-1 jalankan chat-cli di alpine-2 dan 3

Untuk Auth

Untuk login : auth <user> <password>

Alpine-1 (server log)



```
/ # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
_D /home/work
Cloning into '/home/work'...
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (178/178), done.
remote: Compressing objects: 100% (106/106), done.
remote: Total 455 (delta 96), reused 120 (delta 72), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 280.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 server_thread_chat.py
WARNING:root:connection from ('192.168.122.95', 43416)
WARNING:root:connection from ('192.168.122.217', 53016)
WARNING:root:data dari client: auth messi surabaya

WARNING:root:AUTH: auth messi surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenid": "09b90289-a888-4011-828b-22dbc2c71686"}

WARNING:root:data dari client: auth lineker surabayay

WARNING:root:AUTH: auth lineker surabayay
WARNING:root:balas ke client: {"status": "ERROR", "message": "Password Salah"}

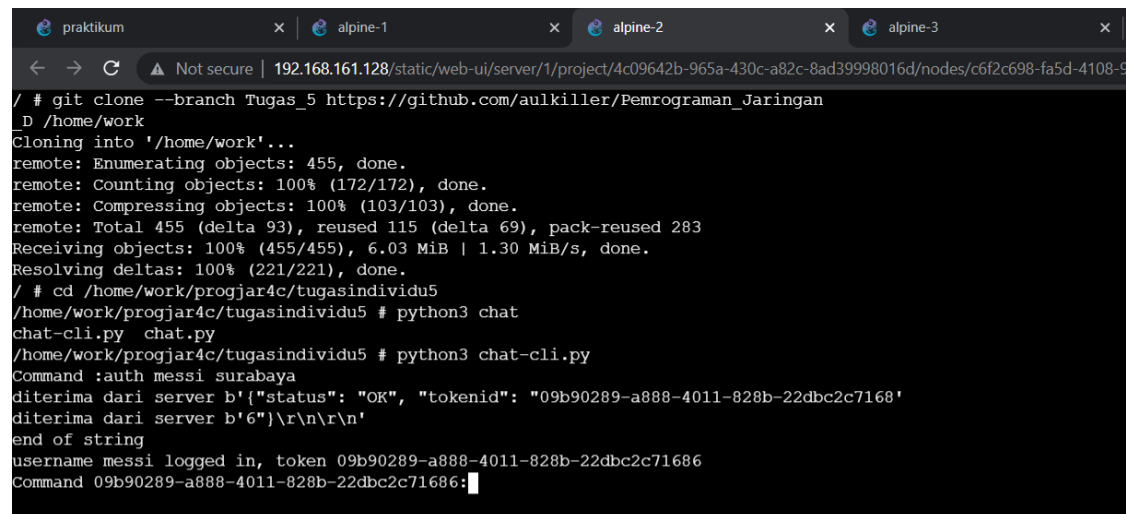
WARNING:root:data dari client: auth nyeker sby

WARNING:root:AUTH: auth nyeker sby
WARNING:root:balas ke client: {"status": "ERROR", "message": "User Tidak Ada"}

WARNING:root:data dari client: auth lineker surabaya

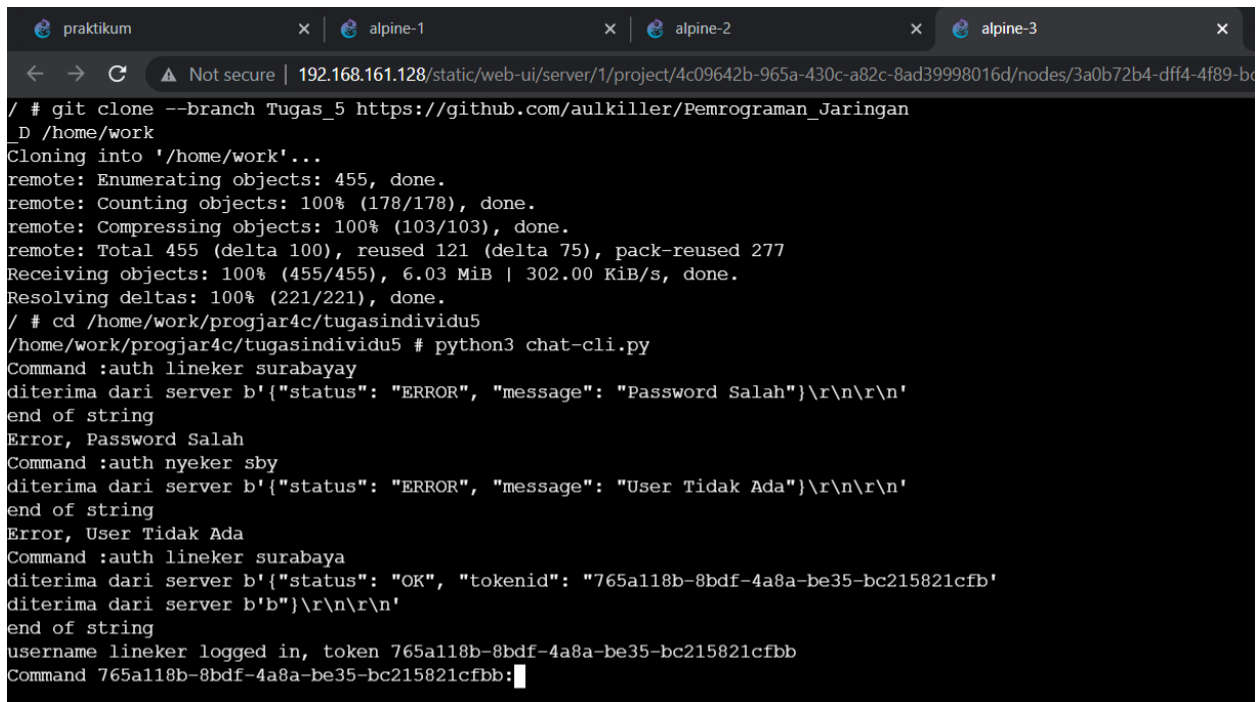
WARNING:root:AUTH: auth lineker surabaya
WARNING:root:balas ke client: {"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfbb"}
```

Alpine-2(login biasa)



```
/ # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
_D /home/work
Cloning into '/home/work'...
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (172/172), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 93), reused 115 (delta 69), pack-reused 283
Receiving objects: 100% (455/455), 6.03 MiB | 1.30 MiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat
chat-cli.py chat.py
/home/work/progjar4c/tugasindividu5 # python3 chat-cli.py
Command :auth messi surabaya
diterima dari server b'{"status": "OK", "tokenid": "09b90289-a888-4011-828b-22dbc2c71686"}'
diterima dari server b'6')\r\n\r\n'
end of string
username messi logged in, token 09b90289-a888-4011-828b-22dbc2c71686
Command 09b90289-a888-4011-828b-22dbc2c71686:
```

Alpine-3(Tes handling error login)



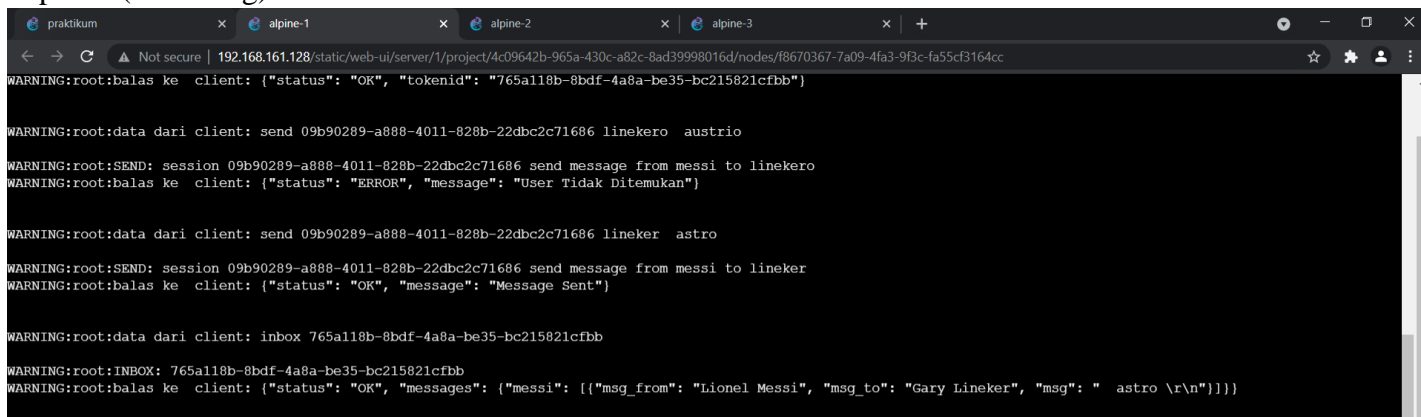
```
/ # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
_D /home/work
Cloning into '/home/work'...
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (178/178), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 100), reused 121 (delta 75), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 302.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat-cli.py
Command :auth lineker surabaya
diterima dari server b'{"status": "ERROR", "message": "Password Salah"}\r\n\r\n'
end of string
Error, Password Salah
Command :auth nyeker sby
diterima dari server b'{"status": "ERROR", "message": "User Tidak Ada"}\r\n\r\n'
end of string
Error, User Tidak Ada
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfb"}\r\n\r\n'
diterima dari server b'b')\r\n\r\n'
end of string
username lineker logged in, token 765a118b-8bdf-4a8a-be35-bc215821cfbb
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:
```

Untuk bertukar pesan

Untuk mengirim : send <user> <isi pesan>

Untuk menerima : inbox

Alpine-1(server log)



```
WARNING:root:balas ke client: {"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfbb"}

WARNING:root:data dari client: send 09b90289-a888-4011-828b-22dbc2c71686 linekero austrio

WARNING:root:SEND: session 09b90289-a888-4011-828b-22dbc2c71686 send message from messi to linekero
WARNING:root:balas ke client: {"status": "ERROR", "message": "User Tidak Ditemukan"}

WARNING:root:data dari client: send 09b90289-a888-4011-828b-22dbc2c71686 lineker astro

WARNING:root:SEND: session 09b90289-a888-4011-828b-22dbc2c71686 send message from messi to lineker
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: inbox 765a118b-8bdf-4a8a-be35-bc215821cfbb

WARNING:root:INBOX: 765a118b-8bdf-4a8a-be35-bc215821cfbb
WARNING:root:balas ke client: {"status": "OK", "messages": [{"messi": [{"msg_from": "Lionel Messi", "msg_to": "Gary Lineker", "msg": " astro \r\n"}]}}
```

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```
WARNING:root:data dari client: send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi wangiwangi

WARNING:root:SEND: session 765a118b-8bdf-4a8a-be35-bc215821cfbb send message from lineker to messi
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi baubau

WARNING:root:SEND: session 765a118b-8bdf-4a8a-be35-bc215821cfbb send message from lineker to messi
WARNING:root:balas ke client: {"status": "OK", "message": "Message Sent"}

WARNING:root:data dari client: inbox 09b90289-a888-4011-828b-22dbc2c71686

WARNING:root:INBOX: 09b90289-a888-4011-828b-22dbc2c71686
WARNING:root:balas ke client: {"status": "OK", "messages": [{"lineker": [{"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " baubau \r\n"}]}}
```

Alpine-2(Tes kirim ke user tidak ada,lineker dan menerima dua pesan masuk)

```
praktikum x alpine-1 x alpine-2 x alpine-3 x +
< -> C Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/nodes/c6f2c698-fa5d-4108-90b4-2df4b22753ff
/ # git clone --branch Tugas_5 https://github.com/aulkiller/Pemrograman_Jaringan
D /home/work
Cloning into '/home/work'...
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (172/172), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 93), reused 115 (delta 69), pack-reused 283
Receiving objects: 100% (455/455), 6.03 MiB | 1.30 MiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat
chat-cli.py chat.py
/home/work/progjar4c/tugasindividu5 # python3 chat-cli.py
Command :auth messi surabaya
diterima dari server b'{"status": "OK", "tokenid": "09b90289-a888-4011-828b-22dbc2c71686"}\r\n\r\n'
end of string
username messi logged in, token 09b90289-a888-4011-828b-22dbc2c71686
Command 09b90289-a888-4011-828b-22dbc2c71686:send lineker astro
send 09b90289-a888-4011-828b-22dbc2c71686 lineker astro

diterima dari server b'{"status": "ERROR", "message": "User Tidak Ditemukan"}\r\n\r\n'
end of string
Error, User Tidak Ditemukan
Command 09b90289-a888-4011-828b-22dbc2c71686:send lineker astro
send 09b90289-a888-4011-828b-22dbc2c71686 lineker astro

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to lineker
Command 09b90289-a888-4011-828b-22dbc2c71686:inbox
diterima dari server b'{"status": "OK", "messages": {"lineker": [{"msg_from": "Gary Lin'
diterima dari server b'eker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"'
diterima dari server b'msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " b'
diterima dari server b'aubau \r\n"}]}}\r\n\r\n'
end of string
[{"lineker": [{"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " wangiwangi \r\n"}, {"msg_from": "Gary Lineker", "msg_to": "Lionel Messi", "msg": " baubau \r\n"}]]}
Command 09b90289-a888-4011-828b-22dbc2c71686:
```

Alpine-3(Tes kirim message dua kali dan menerima satu pesan masuk)

```
praktikum x alpine-1 x alpine-2 x alpine-3
← → ↻ Not secure | 192.168.161.128/static/web-ui/server/1/project/4c09642b-965a-430c-a82c-8ad39998016d/node
remote: Enumerating objects: 455, done.
remote: Counting objects: 100% (178/178), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 455 (delta 100), reused 121 (delta 75), pack-reused 277
Receiving objects: 100% (455/455), 6.03 MiB | 302.00 KiB/s, done.
Resolving deltas: 100% (221/221), done.
/ # cd /home/work/progjar4c/tugasindividu5
/home/work/progjar4c/tugasindividu5 # python3 chat-cli.py
Command :auth lineker surabaya
diterima dari server b'{"status": "ERROR", "message": "Password Salah"}\r\n\r\n'
end of string
Error, Password Salah
Command :auth nyeker sby
diterima dari server b'{"status": "ERROR", "message": "User Tidak Ada"}\r\n\r\n'
end of string
Error, User Tidak Ada
Command :auth lineker surabaya
diterima dari server b'{"status": "OK", "tokenid": "765a118b-8bdf-4a8a-be35-bc215821cfb"
diterima dari server b'b')\r\n\r\n'
end of string
username lineker logged in, token 765a118b-8bdf-4a8a-be35-bc215821cfbb
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:inbox
diterima dari server b'{"status": "OK", "messages": {"messi": [{"msg_from": "Lionel Mes'
diterima dari server b'si", "msg_to": "Gary Lineker", "msg": " astro \r\n\r\n'}}\r\n\r\n'
end of string
{"messi": [{"msg_from": "Lionel Messi", "msg_to": "Gary Lineker", "msg": " astro \r\n\r\n'}}
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:send messi wangiwangi
send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi wangiwangi

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to messi
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:send messi baubau
send 765a118b-8bdf-4a8a-be35-bc215821cfbb messi baubau

diterima dari server b'{"status": "OK", "message": "Message Sent"}\r\n\r\n'
end of string
message sent to messi
Command 765a118b-8bdf-4a8a-be35-bc215821cfbb:
```