

Εργασία Δίκτυα Υπολογιστών II – Wireshark Screenshots



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Δεδομένα και κώδικες της εργασίας [εδώ](#)

Στο παρόν αρχείο παρατίθενται το σύνολο των screenshot από το εργαλείο Wireshark, που ζητήθηκαν στα πλαίσια εκπόνησης της εργασίας.

1. Session 1 Wireshark screenshots:

- Session 1 Codes and attributes

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Εργασία σε δικτυακό προγραμματισμό : Java socket programming

Client public address      : 87.202.49.46
Client listening port      : 48024
Server public address      : 155.207.18.208
Server listening port      : 38024
Echo request code          : E5249
Image request code          : M0804
Audio request code          : A8588 Ad-hoc real-time audio streaming
Ithakicopter code          : Q2593 Remote flying micro-platform
Vehicle OBD-II code         : V5145 Onboard car fault diagnostics

Διάρκεια εργαστηρίου από 23:27 έως 1:27 σήμερα 28-11-2020
Αριθμός φοιτητών/φοιτητριών online στο εργαστήριο : 18

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- Echo request Packet before Image application (before Image 1 download) (Session 1):

Capturing from any							
No.	Time	Source	Destination	Protocol	Length	Info	
2181	520.419342585	155.207.18.208	192.168.1.105	UDP	76	58024 → 48024 Len=32	
2182	520.419604029	192.168.1.105	155.207.18.208	UDP	49	36869 → 38024 Len=5	
2189	522.369994637	155.207.18.208	192.168.1.105	UDP	76	58024 → 48024 Len=32	
2190	522.391364425	192.168.1.105	155.207.18.208	UDP	56	56101 → 38024 Len=12	
2191	522.784810359	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2192	522.791923339	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2193	522.793575785	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2194	522.830184068	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2195	522.867124971	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2196	522.907291171	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2197	522.944622836	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2198	522.984307363	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2199	523.022858789	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2200	523.065488262	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2201	523.099204609	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	
2202	523.127005111	155.207.18.208	192.168.1.105	UDP	172	58024 → 48024 Len=128	

Packet type: Sent by us (4)
Link-layer address type: 1
Link-layer address length: 6

Source: IntelCor a7:89:3d (50:e0:85:a7:89:3d)

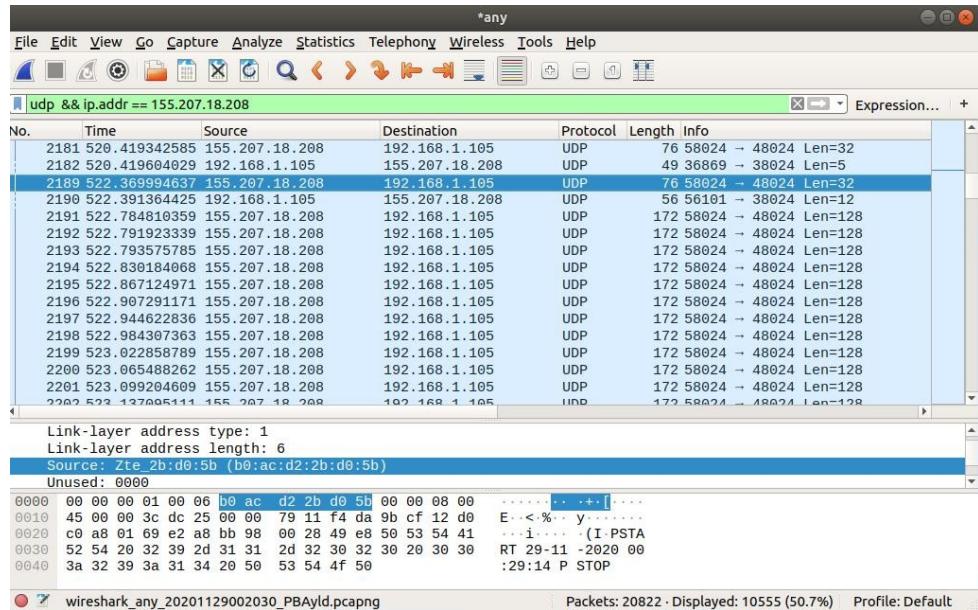
0000	00	04	00	01	00	06	50 e0 85 a7 89 3d	86 dd 08 00p.=....	
0010	45	00	00	21	5a	4f	40	00	40 11 6f cc c0 a8 01 69	E ..!Z0@ @ o .. i
0020	9b	cf	12	d0	90	05	94	88	00 0d 70 cf 45 35 32 34 p-E524
0030	39									9

Source link-layer address (sll.src.eth), 6 bytes

Packets: 20799 · Displayed: 10555 (50.7%) Profile: Default

Echo request Packet before Image application

- Echo response Packet from server, before Image application (before Image 1 download) (Session 1):



Echo response Packet before Image application

- Image request Packet (for Image 1) (Session 1):

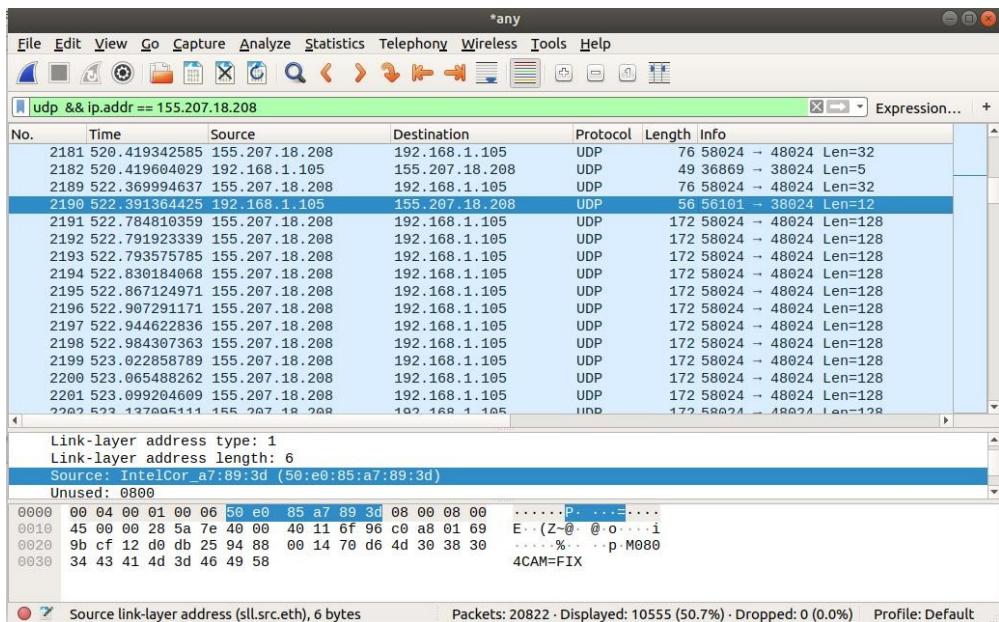


Image request Packet

- [Image 1st response Packet from server \(Image 1\) \(Session 1\):](#)

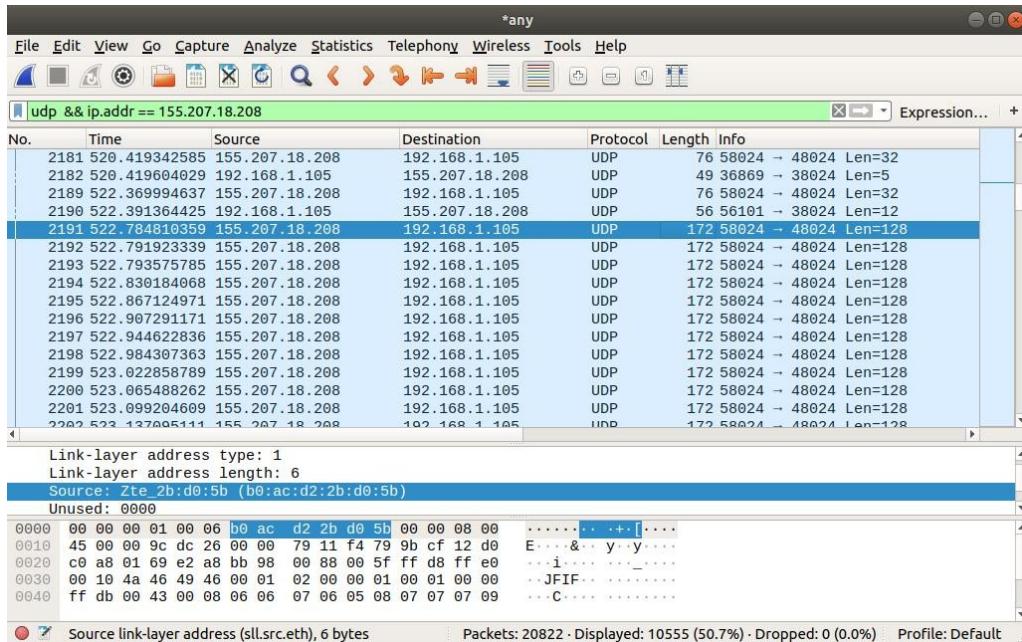
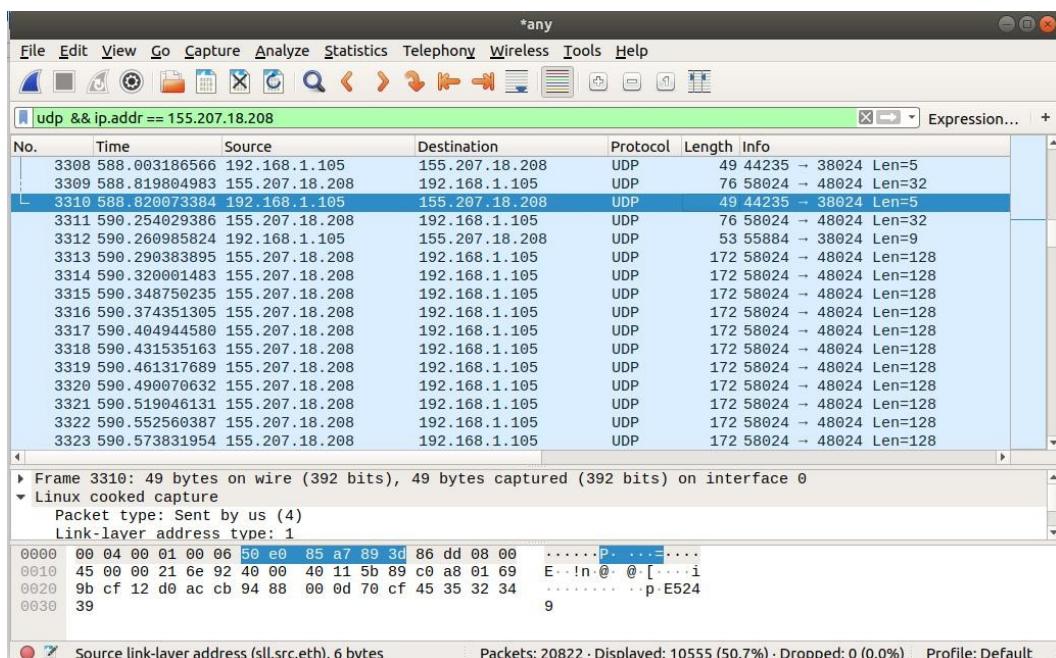


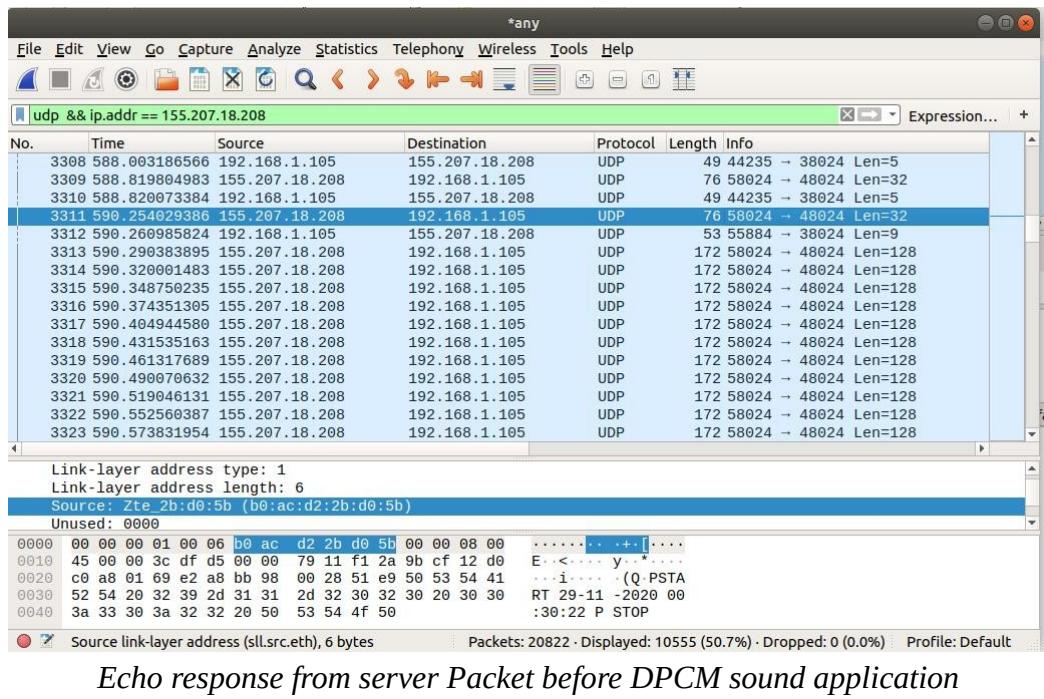
Image 1st response Packet from server

- [Echo request Packet before DPCM sound application \(before frequency generator sample\) \(Session 1\):](#)

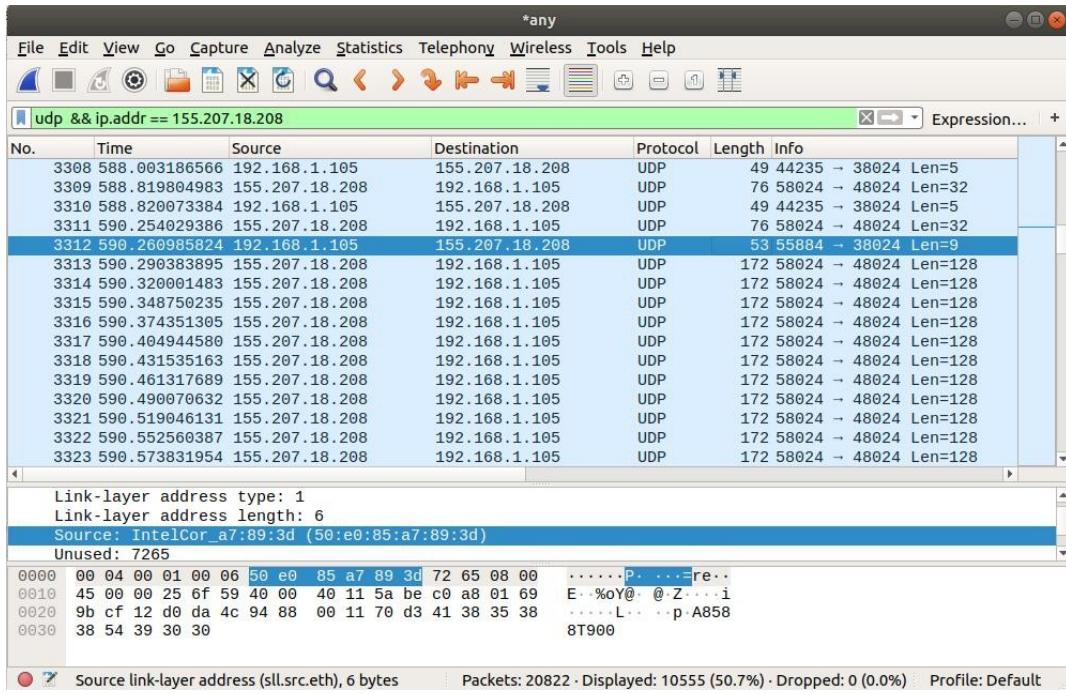


Echo request Packet before DPCM sound application

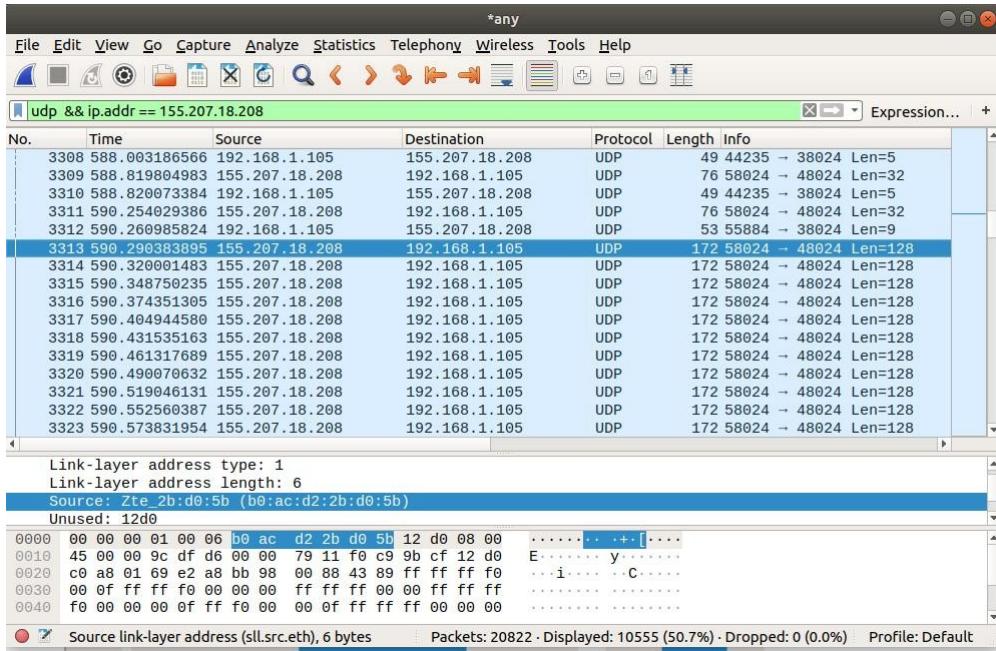
- Echo response Packet from server, before DPCM sound application (before frequency generator sample) (Session 1):



- DPCM sample request Packet (frequency generator sample request) (Session 1):

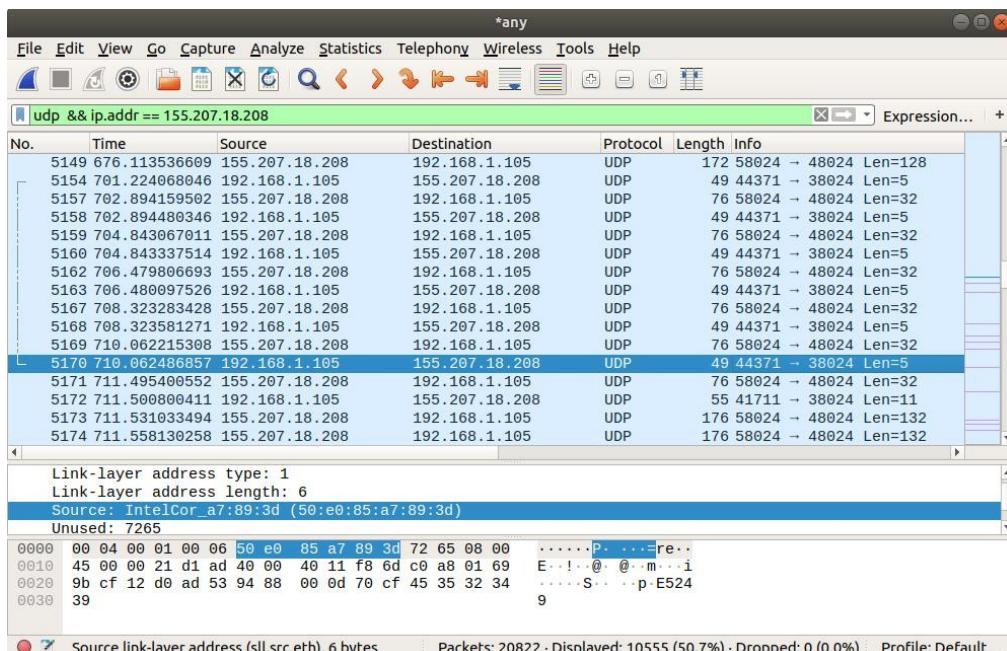


- **DPCM sample first response Packet from server(frequency generator sample request) (Session 1):**



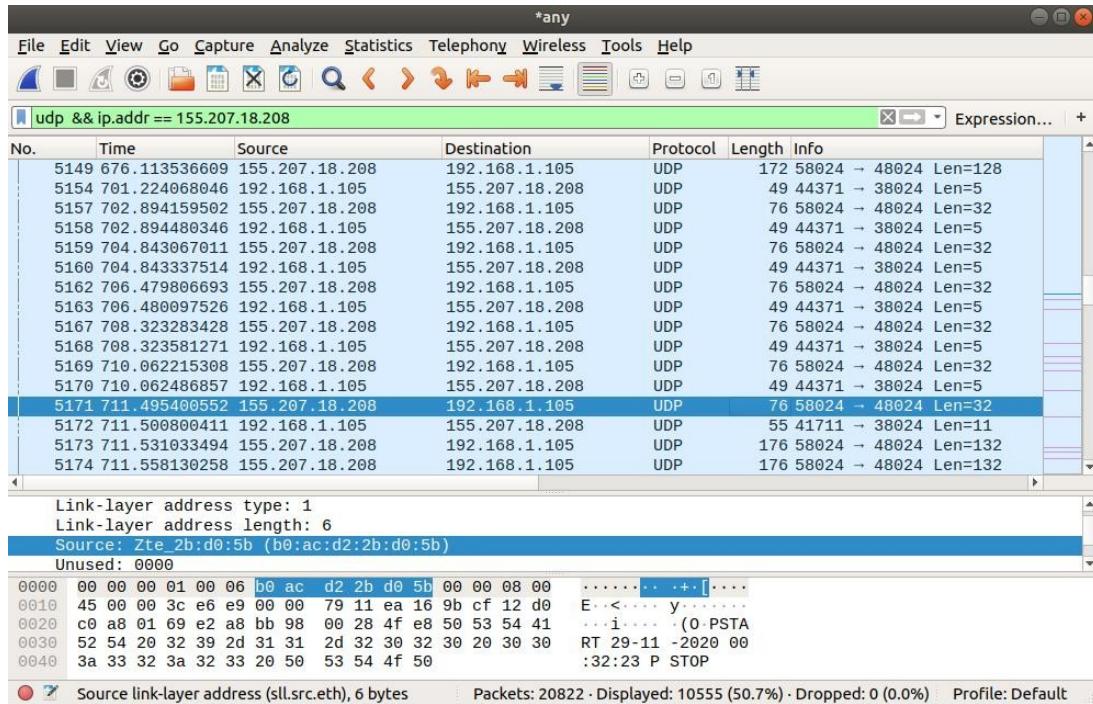
DPCM sample first response Packet from server

- **Echo request Packet before AQDPCM sound application (sample from Symphony No. 9: Ode To Joy) (Session 1):**



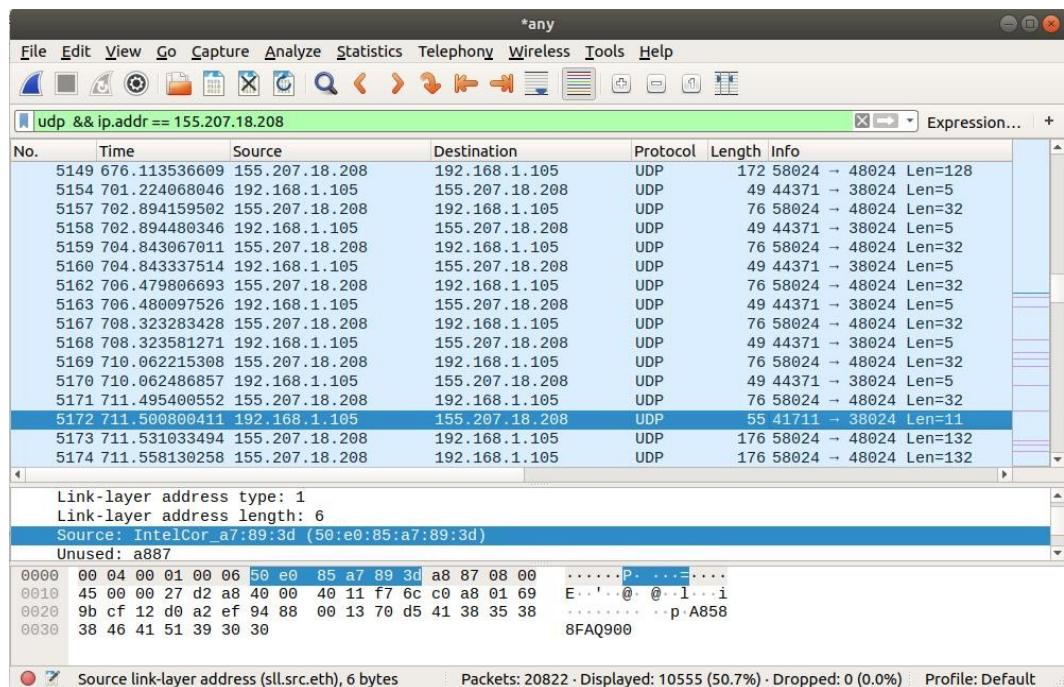
Echo request Packet before AQDPCM sound application

- Echo response Packet from server, before AQDPCM sound application (sample from Symphony No. 9: Ode To Joy) (Session 1):**



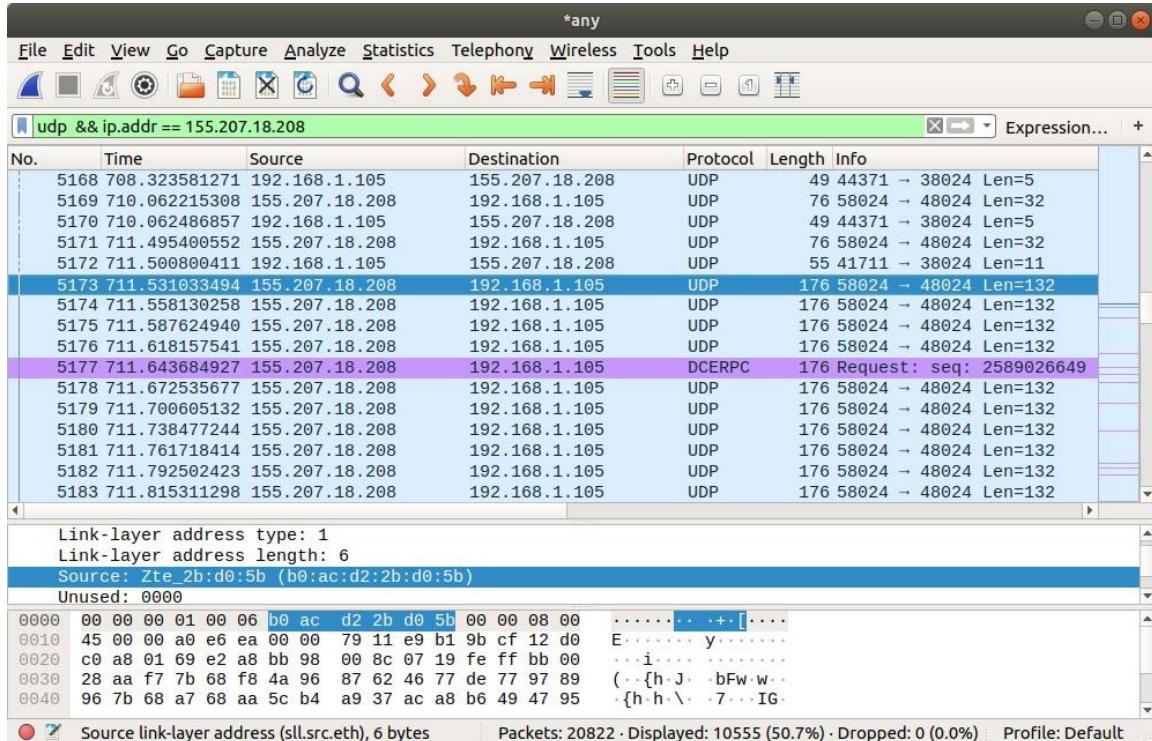
Echo response Packet from server, before AQDPCM sound application

- AQDPCM sample request Packet(sample from Symphony No. 9: Ode To Joy)(Session 1):**



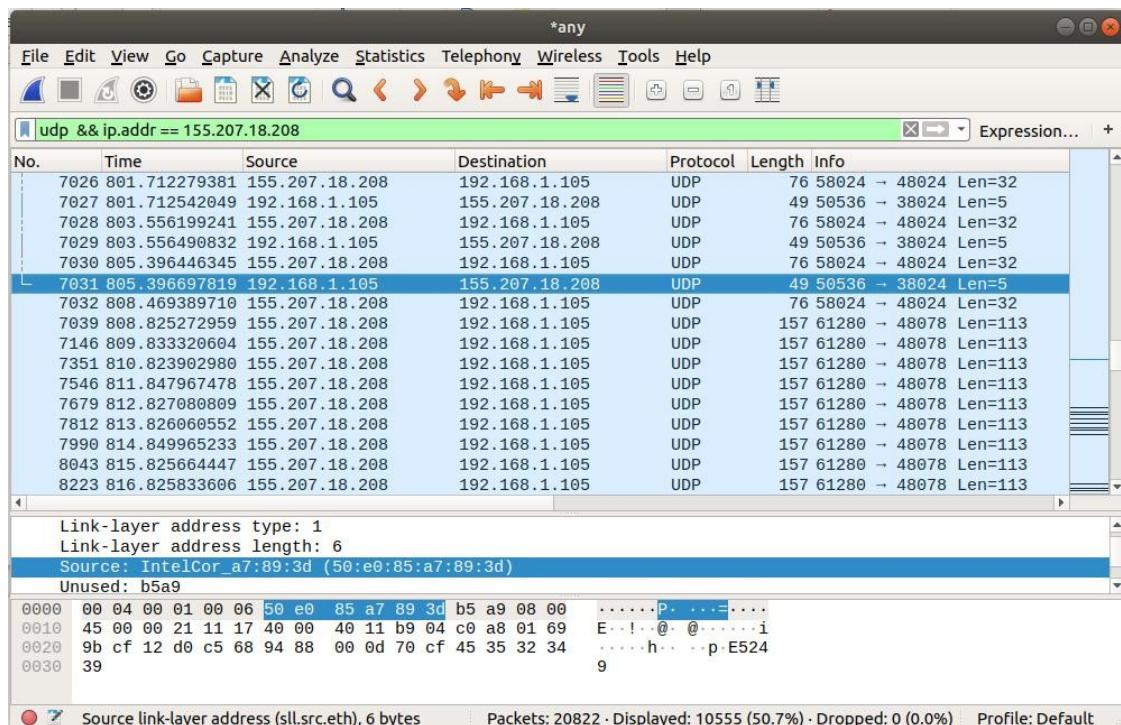
AQDPCM sample request Packet

- AQDPCM sample 1st response Packet from server (sample from Symphony No. 9: Ode To Joy) (Session 1):



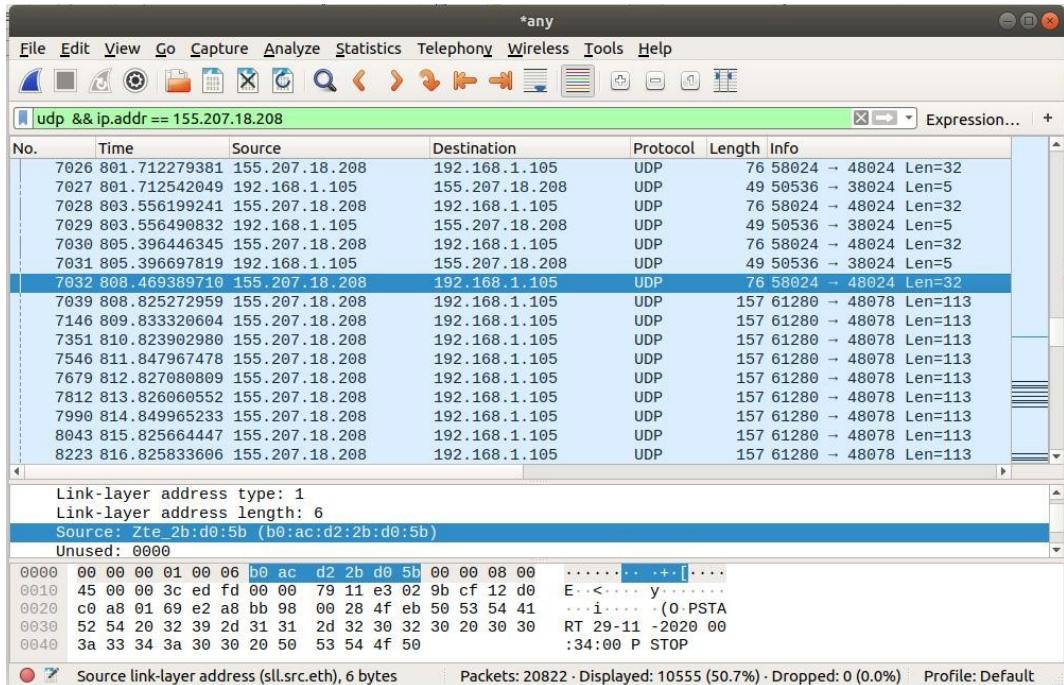
AQDPCM sample 1st response Packet from server

- Echo request Packet before IthakiCopter application (Session 1):



Echo request Packet before IthakiCopter application

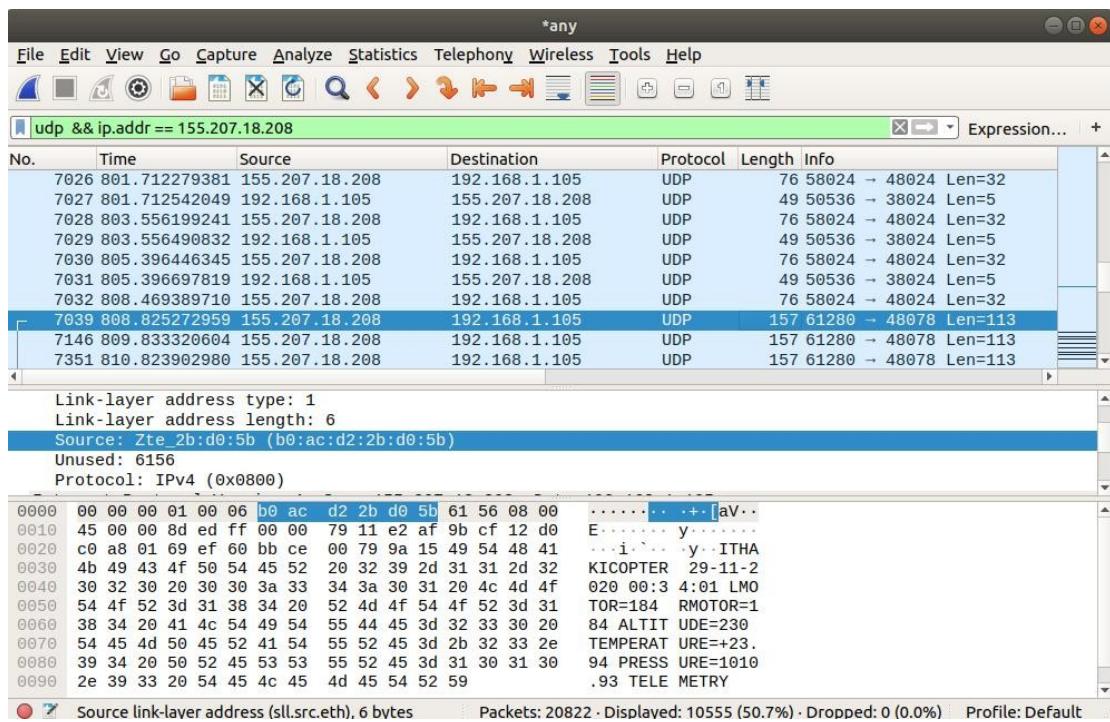
- Echo response Packet from server, before IthakiCopter application (Session 1):**



Echo response Packet from server, before IthakiCopter application

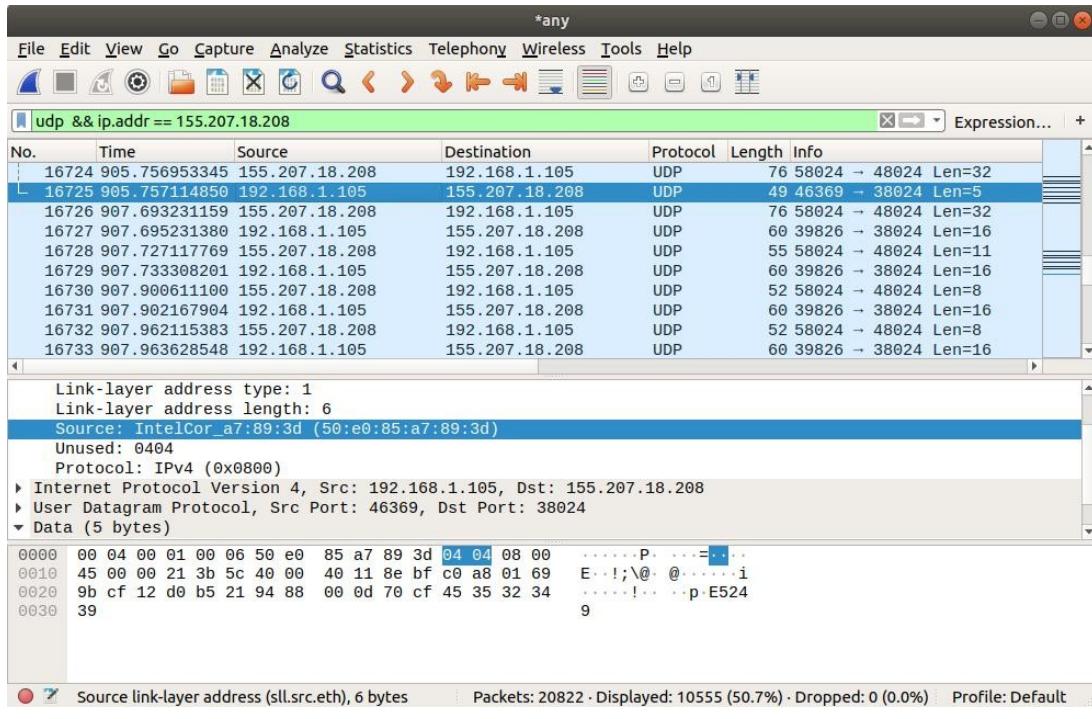
(We don't have Ithakicopter requests as we used the JAR application of Ithaki Copter)

- Ithakicopter's 1st response Packet (Session 1):**



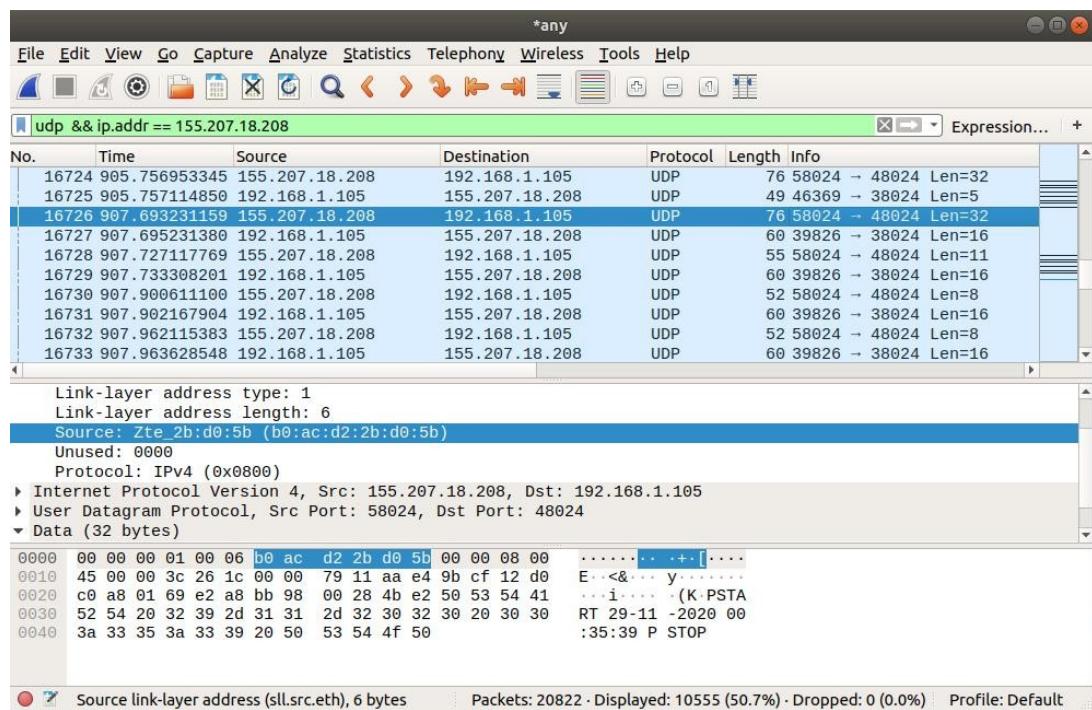
Ithakicopter's 1st response Packet

- Echo request Packet before ODB-II diagnostics application (Session 1):**



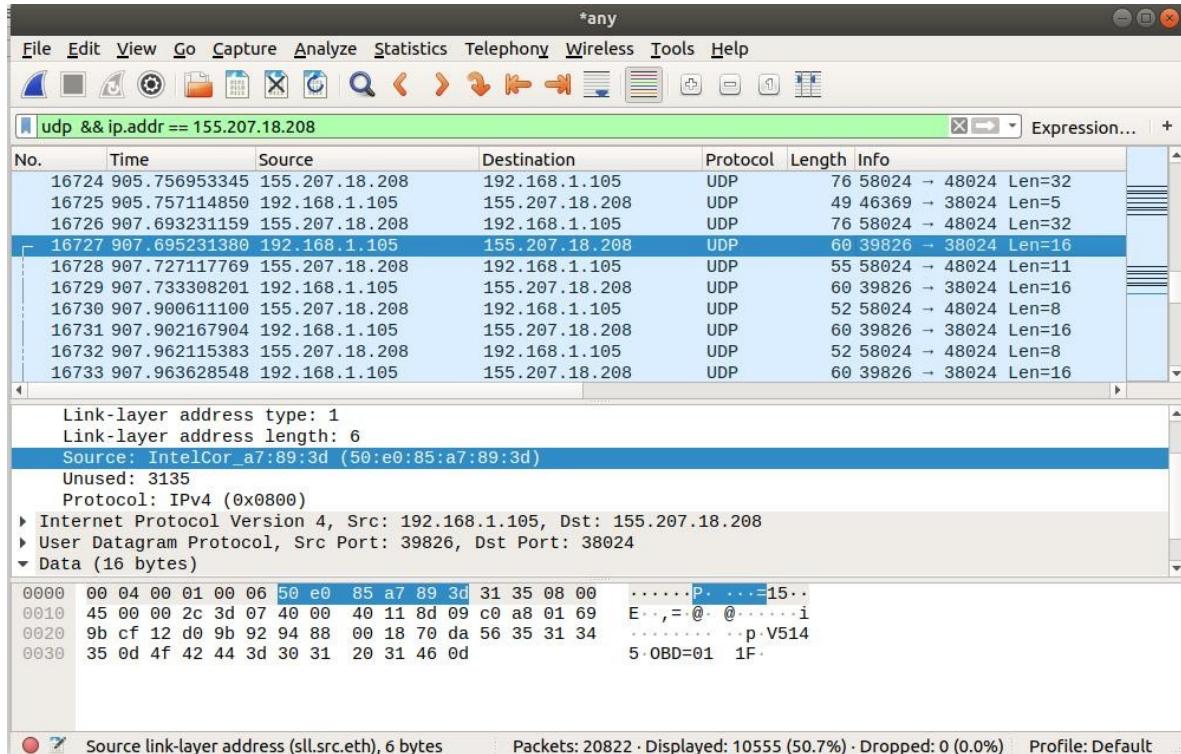
Echo request Packet before ODB-II diagnostics application

- Echo response Packet from server, before ODB-II diagnostics application (Session 1):**



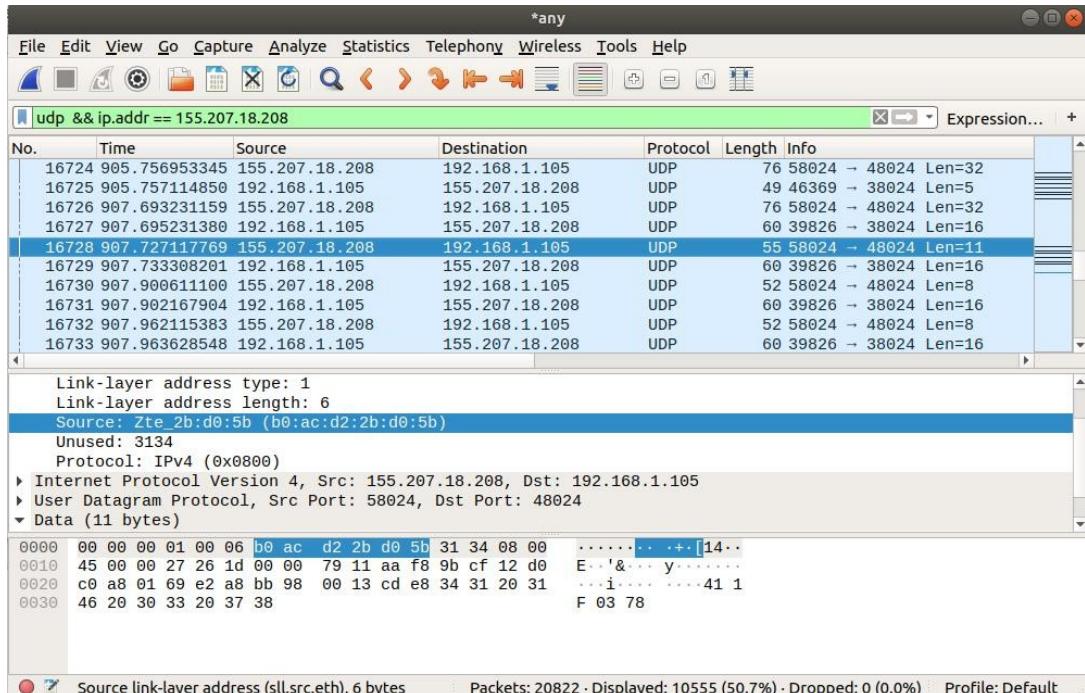
Echo response Packet from server, before ODB-II diagnostics application

- **ODB-II diagnostics request Packet (Engine Runtime Request) (Session 1):**



ODB-II diagnostics request Packet (Engine Runtime Request)

- **ODB-II diagnostics response Packet (Engine Runtime Response) (Session 1):**



ODB-II diagnostics response Packe t (Engine Runtime Response)

2. Session 2 Wireshark screenshots:

- Session 2 Codes and attributes

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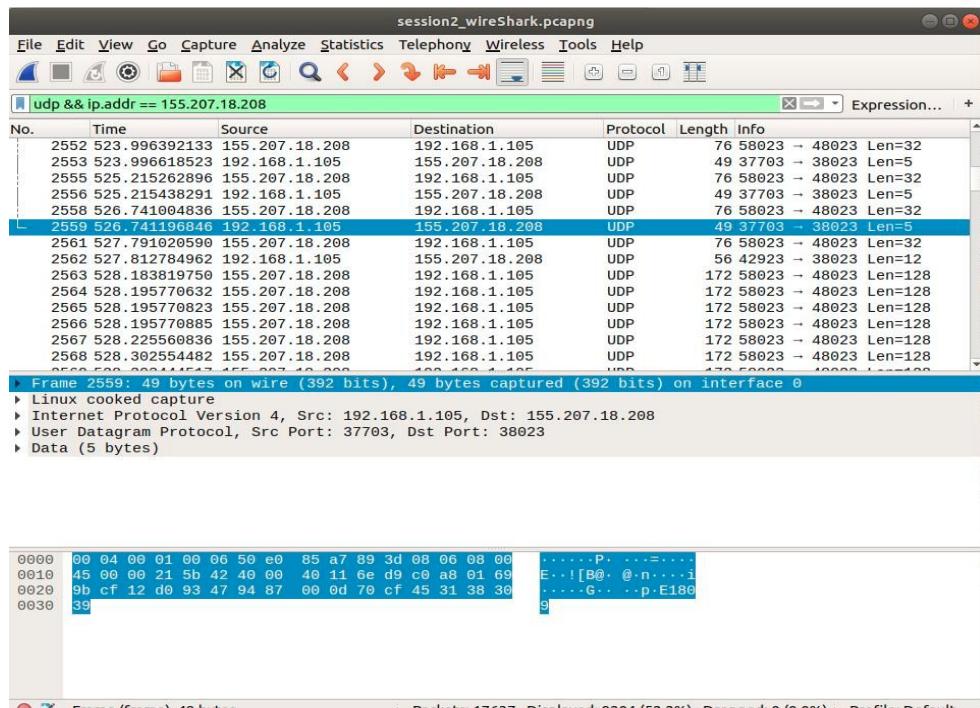
Εργασία σε δικτυακό προγραμματισμό : Java socket programming

Client public address      : 87.202.101.23
Client listening port      : 48023
Server public address      : 155.207.18.208
Server listening port      : 38023
Echo request code          : E1809
Image request code          : M7100
Audio request code          : A1145 Ad-hoc real-time audio streaming
Ithakicopter code          : Q2463 Remote flying micro-platform
Vehicle OBD-II code        : V7291 Onboard car fault diagnostics

Διάρκεια εργαστηρίου από 03:25 έως 5:25 σήμερα 02-12-2020
Αριθμός φοιτητών/φοιτητριών online στο εργαστήριο : 16

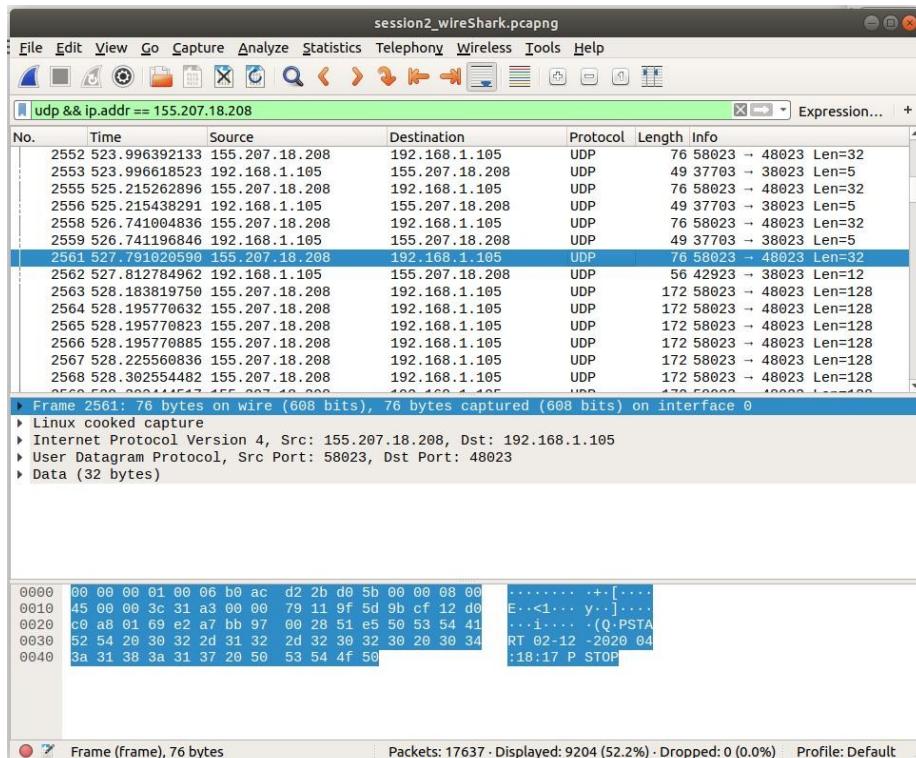
```

- Echo request Packet before Image application (before Image 1 download) (Session 2):



Echo request Packet before Image application

- Echo response Packet from server, before Image application (before Image 1 download) (Session 2):



Echo response Packet from server, before Image application

- Image request Packet (for Image 1) (Session 2):

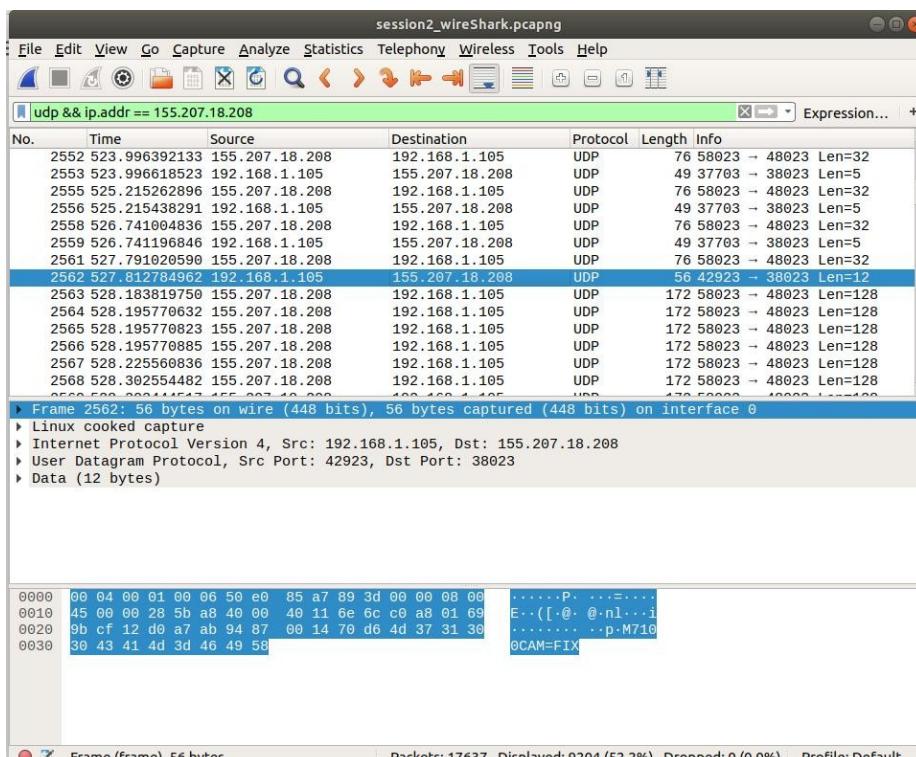


Image request Packet

- **Image 1st response Packet from server (Image 1) (Session 2):**

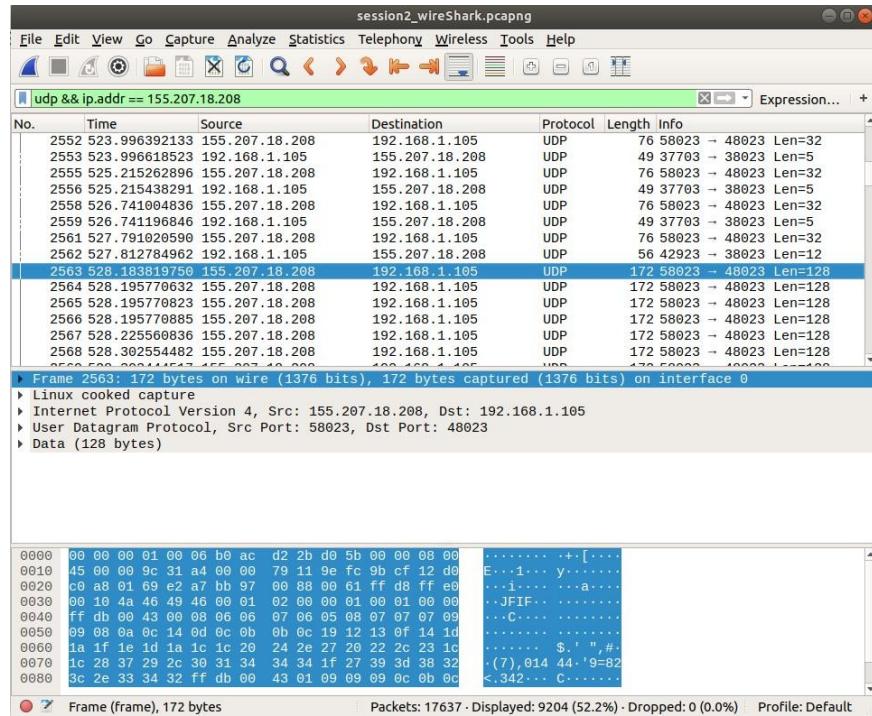
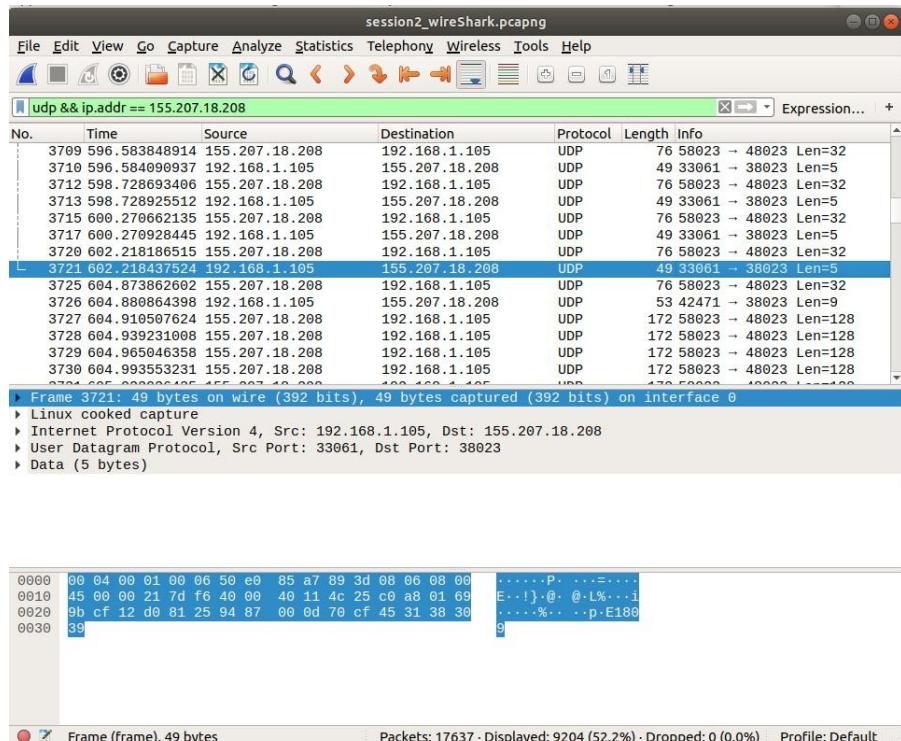


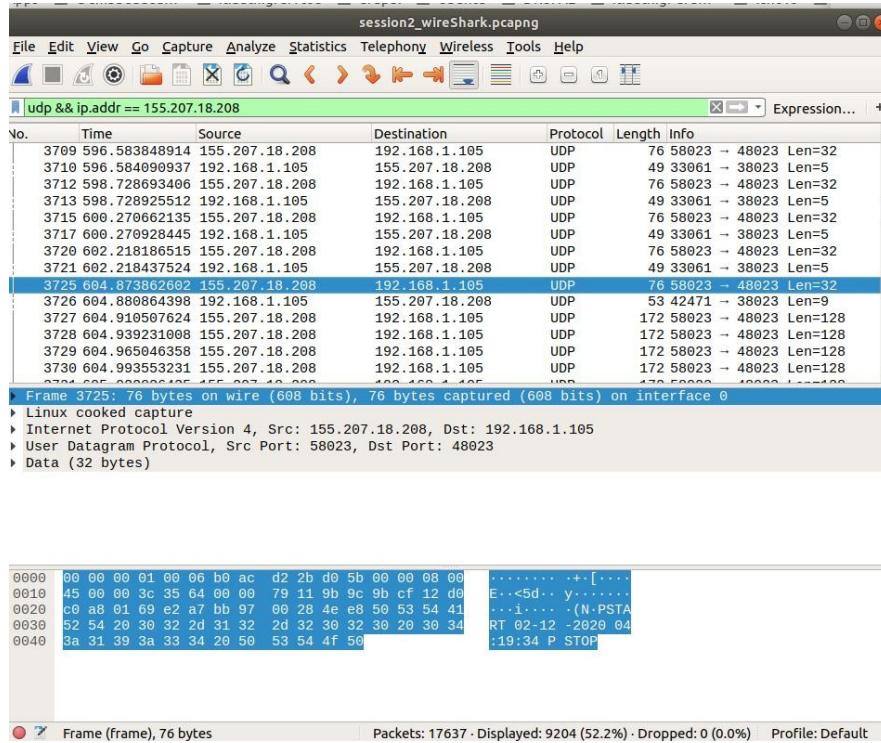
Image 1st response Packet from server

- **Echo request Packet before DPCM sound application (before frequency generator sample) (Session 2):**

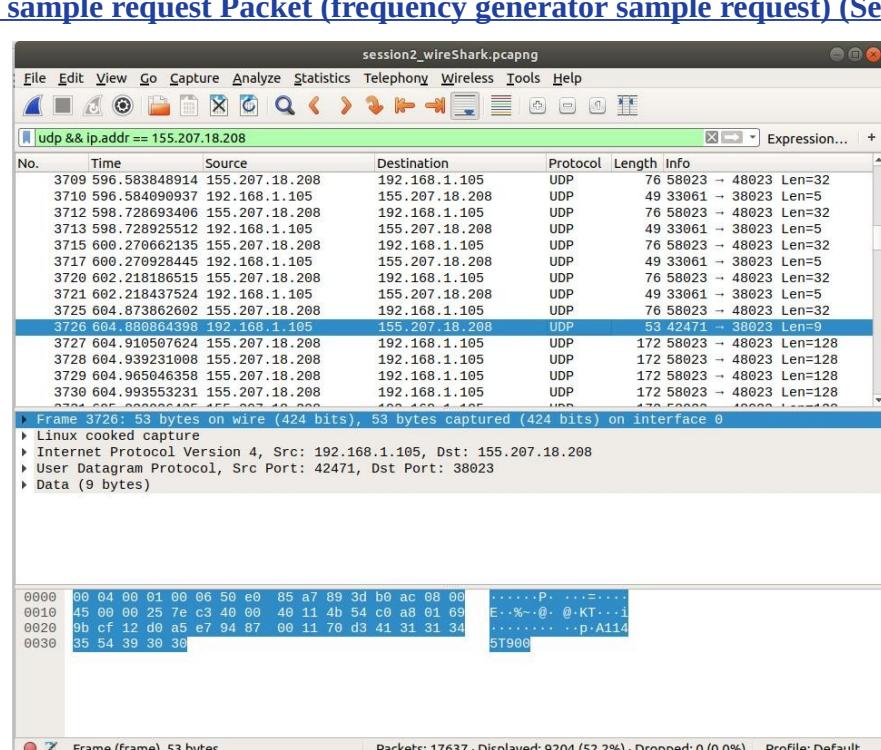


Echo request Packet before DPCM sound application

- Echo response Packet from server, before DPCM sound application (before frequency generator sample) (Session 2):

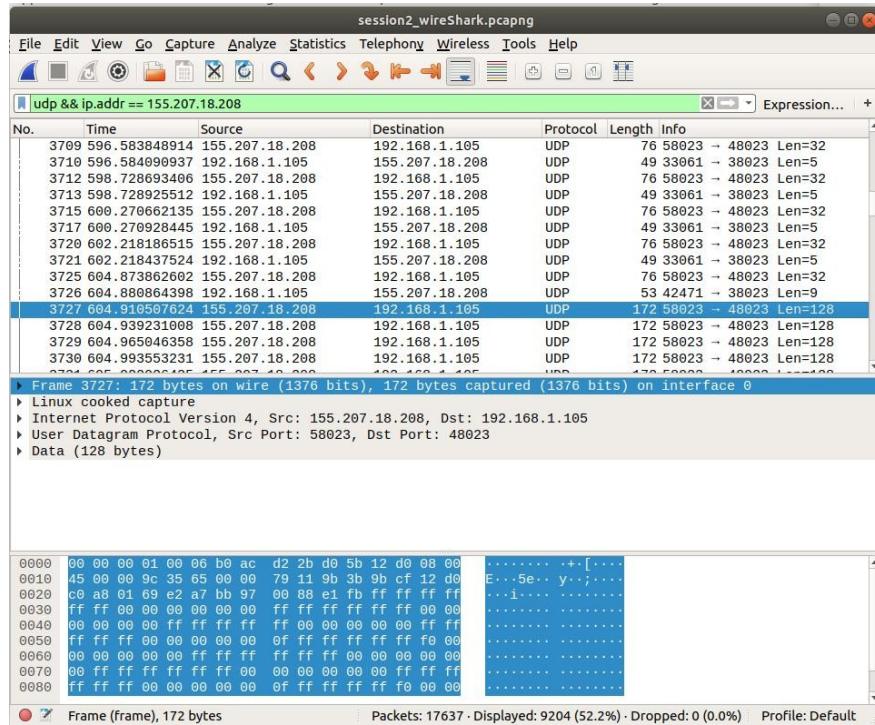


- DPCM sample request Packet (frequency generator sample request) (Session 2):



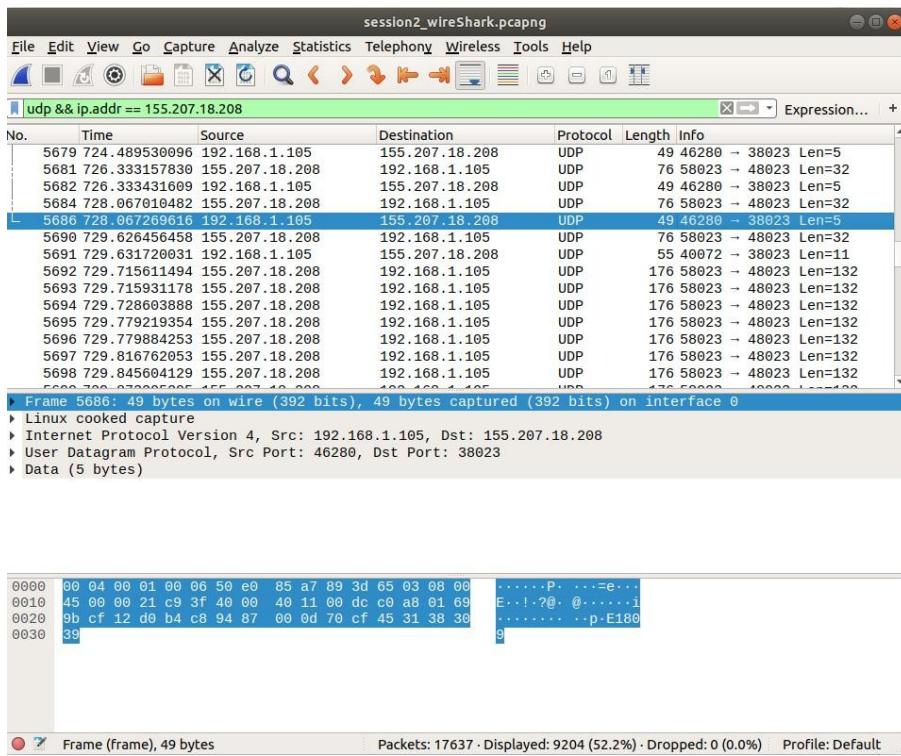
DPCM sample request Packet

- DPCM sample first response Packet from server(frequency generator sample request) (Session 2):



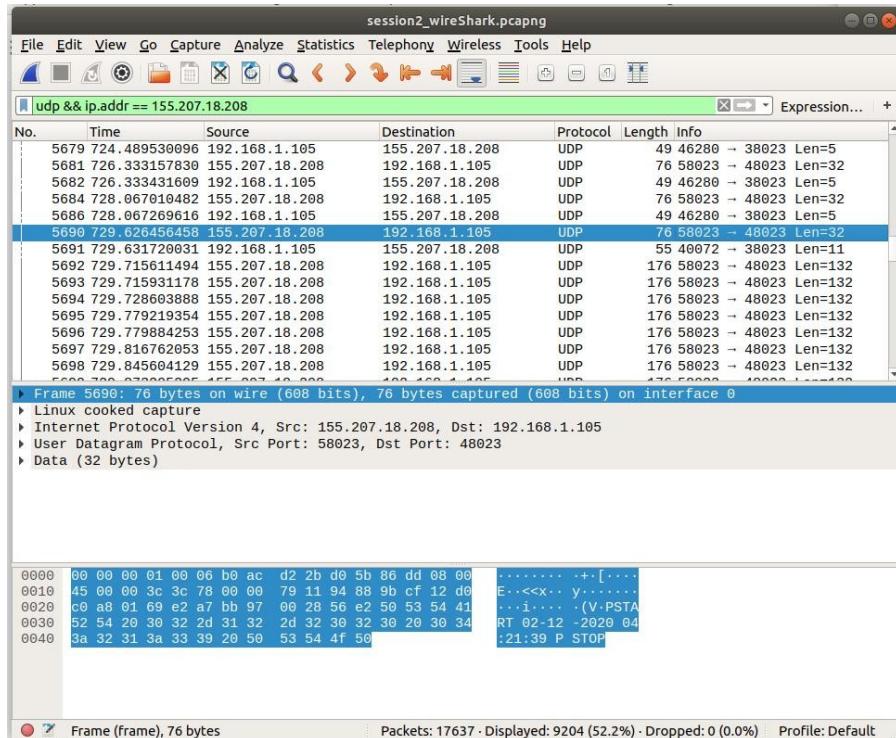
DPCM sample first response Packet from server

- Echo request Packet before AQDPCM sound application (Session 2):



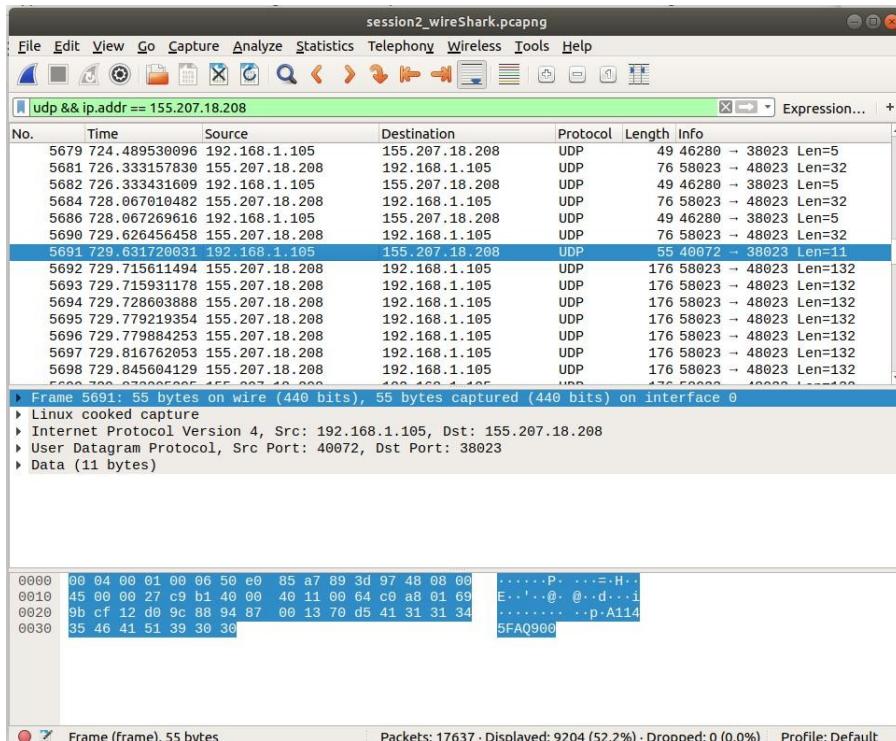
Echo request Packet before AQDPCM sound application

- Echo response Packet from server, before AQDPCM sound application (Session 2):**



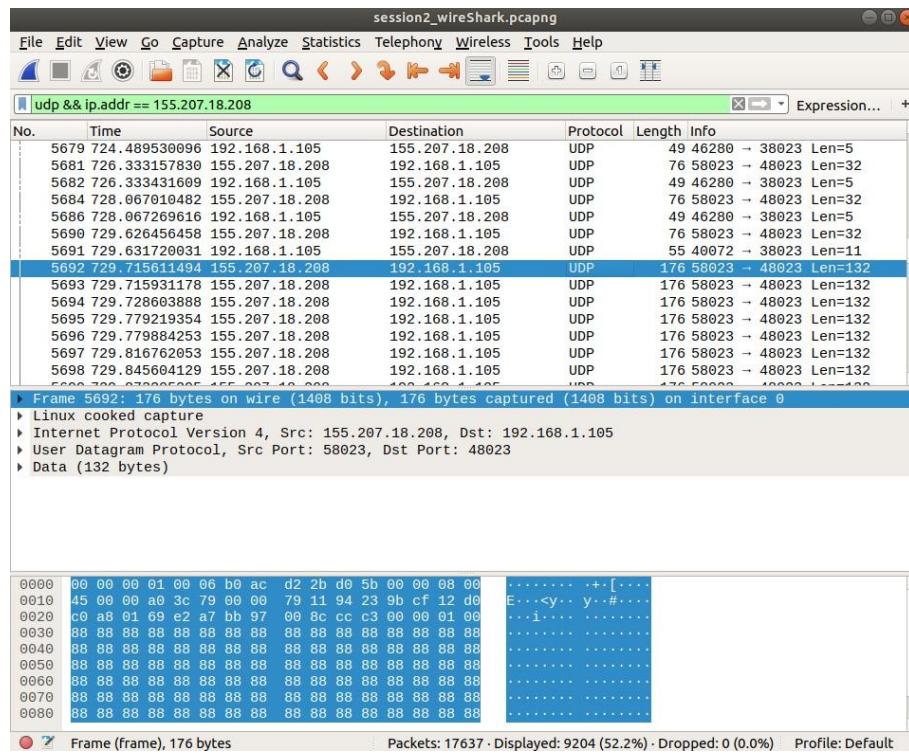
Echo response Packet from server, before AQDPCM sound application

- AQDPCM sample request Packet(sample from “Patrida M’, Araevo Se – Stelios kazantzidis”) (Session 2):**



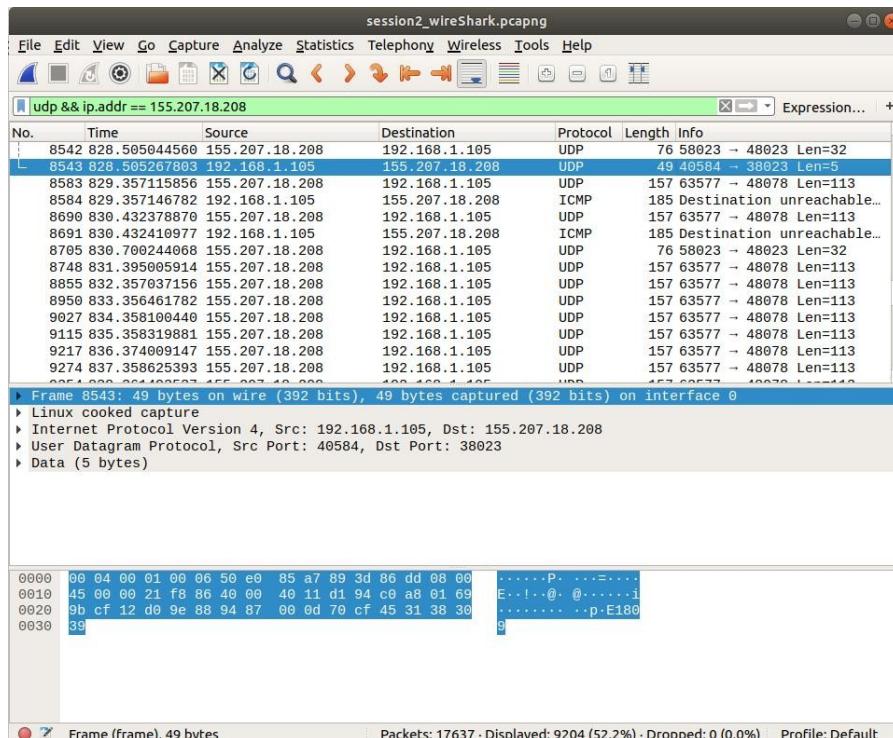
AQDPCM sample request Packet

- **AQDPCM sample 1st response Packet from server (sample from “Patrida M”, Araevos Se – Stelios kazantzidis) (Session 2):**



AQDPCM sample 1st response Packet from server

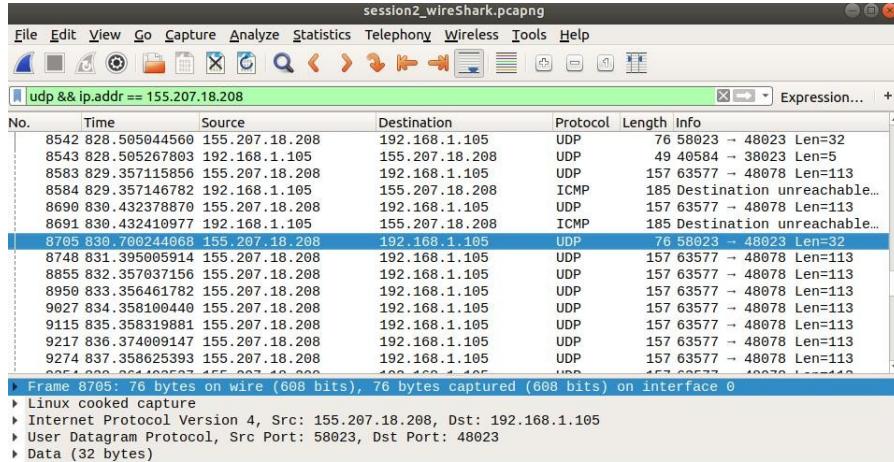
- **Echo request Packet before IthakiCopter application (Session 2):**



Echo request Packet before IthakiCopter application

Βλέπουμε ότι κατά τα screenshot που έχουν να κάνουν με την εφαρμογή IthakiCopter κατά το session 2 έχουμε και πακέτα τύπου ICMP, οποία από ότι φαίνεται έχουν κανουν με την εφαρμογή ithakicopter.jar, που εκίνησε λίγο πριν την ενάρξη της λήψης των μετρήσεων telemetry. Κατά την εκίνηση του ithakicopter.jar το copter ήταν εν κίνηση, ενδεχομένως εξαιτίας της τηλέδιαχείρισης του copter από κάποιο συνάδελφο.

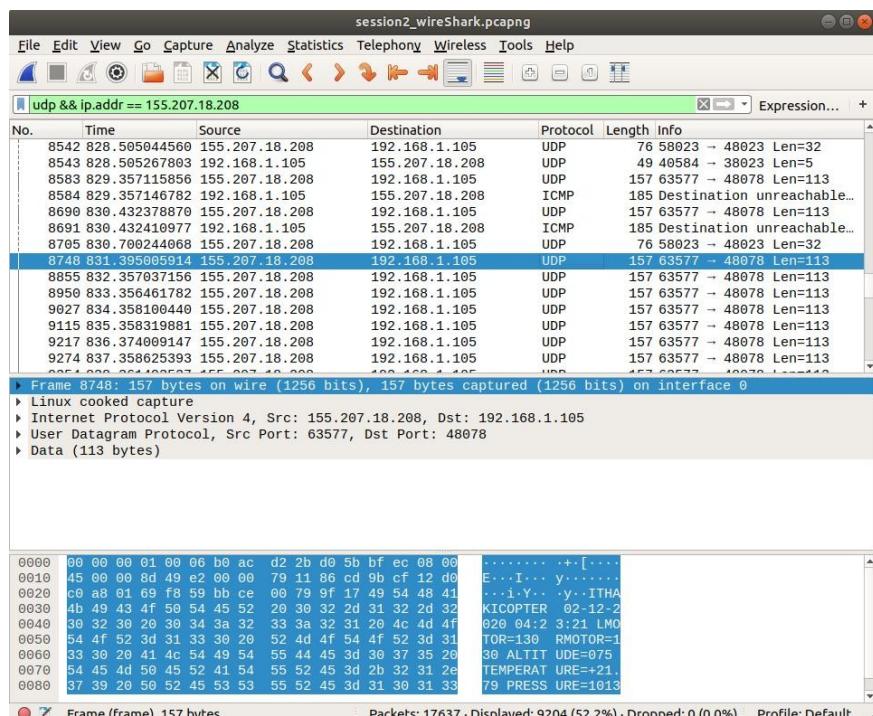
- **Echo response Packet from server, before IthakiCopter application (Session 2):**



Echo response Packet from server, before IthakiCopter application

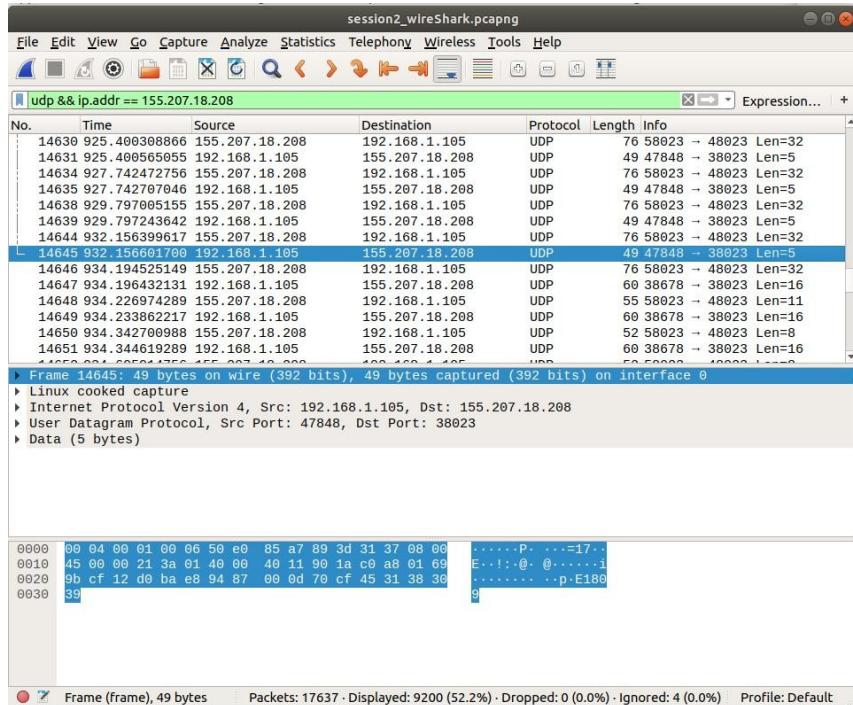
(We don't have Ithakicopter requests as we used the JAR application of Ithaki Copter)

- **Ithakicopter's 1st response Packet (Session 2):**



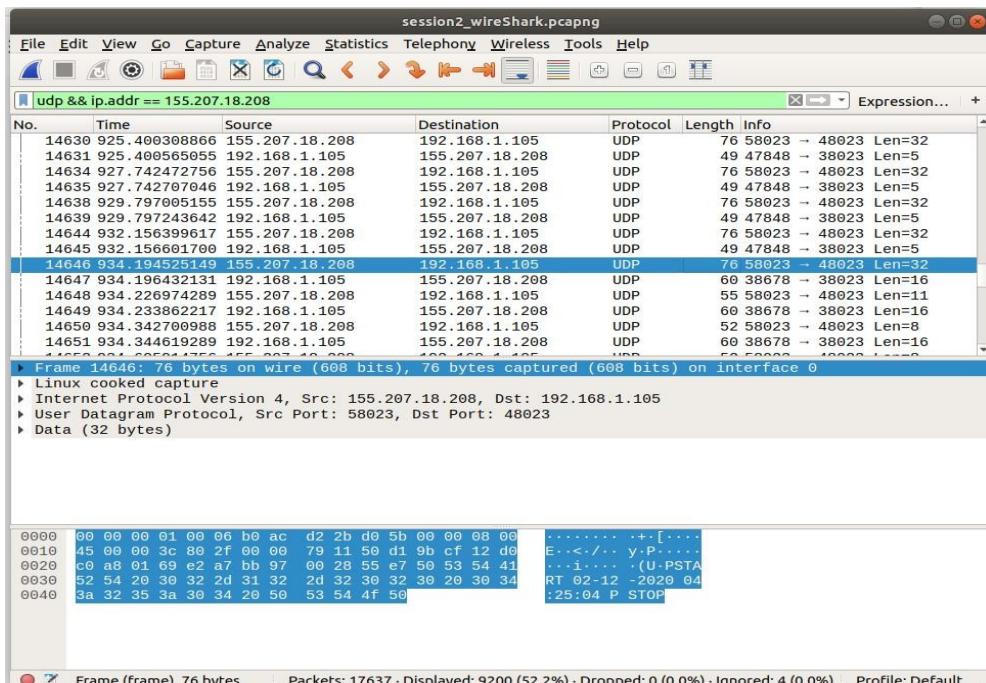
Ithakicopter's 1st response Packet

- **Echo request Packet before ODB-II diagnostics application (Session 2):**



Echo request Packet before ODB-II diagnostics application

- **Echo response Packet from server, before ODB-II diagnostics application (Session 2):**



Echo response Packet from server, before ODB-II diagnostics application

- **ODB-II diagnostics request Packet (Engine Runtime Request) (Session 2):**

session2_wireShark.pcapng

Expression... +

No.	Time	Source	Destination	Protocol	Length	Info
14630	925.400308866	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14631	925.400565055	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14634	927.742472756	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14635	927.742707046	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14638	929.797005155	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14639	929.797243642	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14644	932.156399617	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14645	932.156661700	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14646	934.194525149	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14647	934.196432131	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16
14648	934.226974289	155.207.18.208	192.168.1.105	UDP	55	58023 → 48023 Len=11
14649	934.233862217	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16
14650	934.342700988	155.207.18.208	192.168.1.105	UDP	52	58023 → 48023 Len=8
14651	934.344619289	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16

Frame 14647: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface 0
Internet Protocol Version 4, Src: 192.168.1.105, Dst: 155.207.18.208
User Datagram Protocol, Src Port: 38678, Dst Port: 38023
Data (16 bytes)

0000 00 04 00 01 00 06 50 e0 85 a7 89 3d 31 37 08 00 P . . . =17..
0010 45 00 00 2c 3b 62 40 00 40 11 8e ae c0 a8 01 69 E . . ; b @ . @ . . . i
0020 9b cf 12 d0 97 16 94 87 00 18 70 da 56 37 32 39 p V729
0030 31 0d 4f 42 44 3d 30 31 20 31 46 0d 1 OBD=01 1F.
Internet Proto... (ip), 20 byte Packets: 17637 · Displayed: 9200 (52.2%) · Dropped: 0 (0.0%) · Ignored: 4 (0.0%) · Profile: Default

ODB-II diagnostics request Packet (Engine Runtime Request)

- **ODB-II diagnostics response Packet (Engine Runtime Response) (Session 2):**

session2_wireShark.pcapng

Expression... +

No.	Time	Source	Destination	Protocol	Length	Info
14630	925.400308866	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14631	925.400565055	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14634	927.742472756	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14635	927.742707046	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14638	929.797005155	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14639	929.797243642	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14644	932.156399617	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14645	932.156661700	192.168.1.105	155.207.18.208	UDP	49	47848 → 38023 Len=5
14646	934.194525149	155.207.18.208	192.168.1.105	UDP	76	58023 → 48023 Len=32
14647	934.196432131	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16
14648	934.226974289	155.207.18.208	192.168.1.105	UDP	55	58023 → 48023 Len=11
14649	934.233862217	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16
14650	934.342700988	155.207.18.208	192.168.1.105	UDP	52	58023 → 48023 Len=8
14651	934.344619289	192.168.1.105	155.207.18.208	UDP	60	38678 → 38023 Len=16

Frame 14648: 55 bytes on wire (440 bits), 55 bytes captured (440 bits) on interface 0
Internet Protocol Version 4, Src: 155.207.18.208, Dst: 192.168.1.105
User Datagram Protocol, Src Port: 58023, Dst Port: 48023
Data (11 bytes)

0000 00 00 00 01 00 06 b0 ac d2 2b d0 5b 40 00 08 00 + [@ . .
0010 45 00 00 27 80 30 00 00 79 11 50 e5 9b cf 12 d0 E . . ' 0 . y P . . .
0020 c0 a8 01 69 e2 a7 bb 97 00 13 cf ed 34 31 20 31 41 1
0030 46 20 30 33 20 34 36 F 03 46
Internet Proto... (ip), 20 byte Packets: 17637 · Displayed: 9200 (52.2%) · Dropped: 0 (0.0%) · Ignored: 4 (0.0%) · Profile: Default

ODB-II diagnostics response Packet (Engine Runtime Response)