

Comparación Zenoh - MQTT

Zenoh

- Latencia y ancho de banda de la cámara
 - 1280x720p

PROBLEMAS	SALIDA	CONSOLA DE DEPURACIÓN	TERMINAL	PUERTOS 1
			* Running on all addresses (0.0.0.0) * Running on http://127.0.0.1:81 * Running on http://172.20.10.8:81 Press CTRL+C to quit Ancho de banda promedio: 0.00 bps Ancho de banda promedio: 0.00 bps Ancho de banda promedio: 0.00 bps 172.20.10.6 -- [04/Nov/2024 12:21:24] "GET / HTTP/1.1" 200 - 172.20.10.6 -- [04/Nov/2024 12:21:24] "GET /video_feed HTTP/1.1" 200 - Ancho de banda promedio: 582803.20 bps Ancho de banda promedio: 1508921.60 bps Ancho de banda promedio: 1534558.40 bps Ancho de banda promedio: 1493460.80 bps Ancho de banda promedio: 1439073.60 bps Ancho de banda promedio: 1500532.80 bps Ancho de banda promedio: 1510302.40 bps ^C	Latency: 0.000321626663208007 Latency: 0.000318527221679687 Latency: 0.000393867492675781 Latency: 0.000315189361572265 Latency: 0.000367403030395507 Latency: 0.000314950942993164 Latency: 0.000353574752807617 Latency: 0.000295877456665039 Latency: 0.000344991683959960 Latency: 0.000341176986694335 Latency: 0.000404596328735351 Latency: 0.000314950942993164 Latency: 0.000355005264282226 Latency: 0.000292539596557617 Latency: 0.000311613082885742 Latency: 0.000353813171386718 Latency: 0.000313282012939453

- 640x480p

172.20.10.6 -- [04/Nov/2024 12:49:55] "GET / HTTP/1.1" 200 - 172.20.10.6 -- [04/Nov/2024 12:49:55] "GET /video_feed HTTP/1.1" 200 - Ancho de banda promedio: 274782.40 bps Ancho de banda promedio: 1056300.80 bps Ancho de banda promedio: 1053608.00 bps Ancho de banda promedio: 1051595.20 bps Ancho de banda promedio: 1051576.00 bps Ancho de banda promedio: 1067555.20 bps Ancho de banda promedio: 1046396.80 bps Ancho de banda promedio: 1055628.80 bps	Latency: 0.00020933151245117 Latency: 0.00022768974304199 Latency: 0.00019407272338867 Latency: 0.00020575523376464 Latency: 0.00020933151245117 Latency: 0.00020790100097656 Latency: 0.00020790100097656 Latency: 0.00049352645874023 Latency: 0.00020837783813476 Latency: 0.00020432472229003
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- 160x80p

172.20.10.6 -- [04/Nov/2024 12:41:48] "GET / HTTP/1.1" 200 - 172.20.10.6 -- [04/Nov/2024 12:41:48] "GET /video_feed HTTP/1.1" 200 - Ancho de banda promedio: 713390.40 bps Ancho de banda promedio: 1012652.80 bps Ancho de banda promedio: 992763.20 bps Ancho de banda promedio: 1022433.60 bps Ancho de banda promedio: 1012097.60 bps Ancho de banda promedio: 988993.60 bps Ancho de banda promedio: 1010641.60 bps Ancho de banda promedio: 991356.80 bps Ancho de banda promedio: 979401.60 bps	Latency: 0.00021815299987792 Latency: 0.00017881393432617 Latency: 0.00018095970153808 Latency: 0.00017690658569335 Latency: 0.00018000602722167 Latency: 0.00019073486328125 Latency: 0.00018334388732910 Latency: 0.00017786026000976 Latency: 0.00017976760864257 Latency: 0.00022506713867187 Latency: 0.00022196769714355
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- Latencia con sensores

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Latencia: 0.0001461505889892578 secs
Latencia: 0.00012803077697753906 secs
Latencia: 0.00012993812561035156 secs
Latencia: 0.00013256072998046875 secs
Latencia: 0.00020456314086914062 secs
Publicando distancia: 19.0
Latencia: 6.628036499023438e-05 secs
Publicando aceleración: 0.08,0.16,1.04
Latencia: 0.00011897087097167969 secs
Publicando giroscopio: 1.50,1.11,0.66
Latencia: 5.626678466796875e-05 secs
Publicando compás: -15.23,11.43,25.78

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- Ancho de banda con sensores

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Sent: 0 bytes, received 0 bytes
Sent: 246 bytes, received 246 bytes
Sent: 123 bytes, received 123 bytes
Publicando distancia: 8.0
Sent: 123 bytes, received 123 bytes
Publicando aceleración: 0.53,0.73,0.36

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MQTT

- Latencia y ancho de banda de la cámara
 - 1280x720p

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* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:81
* Running on http://172.20.10.8:81
Press CTRL+C to quit
Ancho de banda promedio: 0.00 bps
Ancho de banda promedio: 0.00 bps
Ancho de banda promedio: 0.00 bps
172.20.10.6 -- [04/Nov/2024 12:24:01] "GET / HTTP/1.1" 200 -
172.20.10.6 -- [04/Nov/2024 12:24:01] "GET /video_feed HTTP/1.1" 200 -
Ancho de banda promedio: 577744.00 bps
Ancho de banda promedio: 1009432.00 bps
Ancho de banda promedio: 1101812.80 bps
Ancho de banda promedio: 1551064.00 bps
Ancho de banda promedio: 965782.40 bps
Ancho de banda promedio: 987214.40 bps
Ancho de banda promedio: 931928.00 bps
Ancho de banda promedio: 981771.20 bps
Ancho de banda promedio: 1038252.80 bps
Ancho de banda promedio: 1024228.80 bps
Ancho de banda promedio: 1031659.20 bps
Latency: 0.0005762577056884766
Latency: 0.0007669925689697266
Latency: 0.00270843505859375
Latency: 0.000701904296875
Latency: 0.001239776611328125
Latency: 0.0009114742279052734
Latency: 0.0005731582641601562
Latency: 0.0005736351013183594
Latency: 0.0005745887756347656
Latency: 0.0005846023559570312
Latency: 0.0005407333374023438
Latency: 0.0010066032409667969
Latency: 0.0010035037994384766
Latency: 0.0007488727569580078
Latency: 0.0008027553558349609
Latency: 0.0007379055023193359
Latency: 0.0007293224334716797
Latency: 0.00089263916015625
Latency: 0.0007212162017822266
Latency: 0.0008203983306884766

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- 640x480p

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172.20.10.6 - - [04/Nov/2024 12:47:57] "GET / HTTP/1.1" 200 - Latency: 0.00037431716918945
172.20.10.6 - - [04/Nov/2024 12:47:58] "GET /video_feed HTTP/1.1" 200 - Latency: 0.00036215782165527
Ancho de banda promedio: 106569.60 bps Latency: 0.0003662109375 sec
Ancho de banda promedio: 1065704.00 bps Latency: 0.00035476684570312
Ancho de banda promedio: 1072353.60 bps Latency: 0.00034642219543457
Ancho de banda promedio: 1026992.00 bps Latency: 0.00035929679870605
Ancho de banda promedio: 1061830.40 bps Latency: 0.00035905838012695
Ancho de banda promedio: 1051905.60 bps Latency: 0.00035572052001953
Ancho de banda promedio: 1048408.00 bps Latency: 0.00058007240295410
Ancho de banda promedio: 1045158.40 bps Latency: 0.00044703483581542

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- 160x80p

```

Ancho de banda promedio: 0.00 bps Latency: 0.00035166740417480
172.20.10.6 - - [04/Nov/2024 12:45:41] "GET /video_feed HTTP/1.1" 200 - Latency: 0.00046968460083007
172.20.10.6 - - [04/Nov/2024 12:45:44] "GET / HTTP/1.1" 200 - Latency: 0.00046896934509277
172.20.10.6 - - [04/Nov/2024 12:45:44] "GET /video_feed HTTP/1.1" 200 - Latency: 0.00032258033752441
Ancho de banda promedio: 809144.00 bps Latency: 0.00096178054809570
Ancho de banda promedio: 1006982.40 bps Latency: 0.00037717819213867
Ancho de banda promedio: 1015073.60 bps Latency: 0.00049805641174316
Ancho de banda promedio: 984497.60 bps Latency: 0.00051546096801757
Ancho de banda promedio: 1000262.40 bps Latency: 0.00051355361938476
Ancho de banda promedio: 982131.20 bps Latency: 0.00052213668823242
Ancho de banda promedio: 1006475.20 bps Latency: 0.00051164627075195
Ancho de banda promedio: 980732.80 bps Latency: 0.00056600570678716

```

- Latencia con sensores

```

Latencia: 0.0008571147918701172 secs
Latencia: 0.0018830299377441406 secs
Latencia: 0.0019583702087402344 secs
Publicando distancia: 8.0
Latencia: 0.0026276111602783203 secs
Publicando aceleración: 0.09,0.16,1.04
Latencia: 0.0023529529571533203 secs
Publicando giroscopio: 1.27,0.94,0.88
Latencia: 0.0021085739135742188 secs
Publicando compás: -14.94,11.13,26.07
Latencia: 0.0010831356048583984 secs

```

- Ancho de banda con sensores

Conexion exitosa con el Arduino

Sent: 535 bytes, received 369 bytes

Sent: 419 bytes, received 419 bytes

Sent: 417 bytes, received 417 bytes

Sent: 282 bytes, received 282 bytes

Sent: 281 bytes, received 281 bytes

Publicando distancia: 9.0

Sent: 419 bytes, received 419 bytes

Publicando aceleración: 0.02,0.04,1.14

Sent: 365 bytes, received 365 bytes