

Packet Analysis for connection - Wireshark

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|----|-----------|-----------|-----------|-----|----|---|
| 8 | 38.241452 | 127.0.0.1 | 127.0.0.1 | TCP | 68 | 54425 → 1337 [SYN] Seq=0 Win=65535 Len=0 MSS=16344 WS=64 TSval=34008... |
| 9 | 38.241546 | 127.0.0.1 | 127.0.0.1 | TCP | 68 | 1337 → 54425 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=16344 WS=64 ... |
| 10 | 38.241565 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 54425 → 1337 [ACK] Seq=1 Ack=1 Win=408320 Len=0 TSval=3400855550 TSe... |
| 11 | 38.241579 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | [TCP Window Update] 1337 → 54425 [ACK] Seq=1 Ack=1 Win=408320 Len=0 ... |
| 12 | 38.241669 | 127.0.0.1 | 127.0.0.1 | TCP | 80 | 1337 → 54425 [PSH, ACK] Seq=1 Ack=1 Win=408320 Len=24 TSval=34653616... |
| 13 | 38.241700 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 54425 → 1337 [ACK] Seq=1 Ack=25 Win=408320 Len=0 TSval=3400855550 TS... |
| 15 | 43.232177 | 127.0.0.1 | 127.0.0.1 | TCP | 66 | 54425 → 1337 [PSH, ACK] Seq=1 Ack=25 Win=408320 Len=10 TSval=3400860... |
| 16 | 43.232211 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 1337 → 54425 [ACK] Seq=25 Ack=11 Win=408320 Len=0 TSval=3465366601 T... |
| 17 | 43.232317 | 127.0.0.1 | 127.0.0.1 | TCP | 58 | 1337 → 54425 [PSH, ACK] Seq=25 Ack=11 Win=408320 Len=2 TSval=3465366... |
| 18 | 43.232332 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 54425 → 1337 [ACK] Seq=11 Ack=27 Win=408320 Len=0 TSval=3400860541 T... |
| 19 | 47.640611 | 127.0.0.1 | 127.0.0.1 | TCP | 77 | 54425 → 1337 [PSH, ACK] Seq=11 Ack=27 Win=408320 Len=21 TSval=340086... |
| 20 | 47.640641 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 1337 → 54425 [ACK] Seq=27 Ack=32 Win=408320 Len=0 TSval=3465371009 T... |
| 21 | 47.640730 | 127.0.0.1 | 127.0.0.1 | TCP | 80 | 1337 → 54425 [PSH, ACK] Seq=27 Ack=32 Win=408320 Len=24 TSval=346537... |
| 22 | 47.640746 | 127.0.0.1 | 127.0.0.1 | TCP | 56 | 54425 → 1337 [ACK] Seq=32 Ack=51 Win=408320 Len=0 TSval=3400864949 T... |

Client Port: 54425, Server Port: 1337, Both running on same IP: 127.0.0.1

Packet 1: Client initiates a TCP connection to the server by sending a SYN packet.

Packet 2: Server responds with a SYN-ACK packet, acknowledging the connection request.

Packet 3: Client completes the TCP handshake by sending an ACK packet.

Packet 4: Server sends a TCP Window Update (ACK), indicating available buffer space.

Packet 5: Server sends the welcome message ("Welcome! Please log in.") to the client.

Packet 6: Client acknowledges receipt of the welcome message.

Packet 7: Client sends its username to the server as part of the login process.

Packet 8: Server acknowledges receipt of the username.

Packet 9: Server sends an "OK" message to prompt the client for the password.

Packet 10: Client acknowledges receipt of the "OK" message.

Packet 11: Client sends its password to the server to complete authentication.

Packet 12: Server acknowledges receipt of the password.

Packet 13: Server sends the login result (e.g., "Hi Bob, good to see you") to the client.

Packet 14: Client acknowledges receipt of the login result, completing the authentication phase.