

PROBLEMS

OUTPUT

DEBUG CONSOLE

PORTS

TAILSCALE

✓ TERMINAL

CONSOLE GATEWAY

-- Sequence number: 0

-- Server data frame constructed in 0.0900 ms

-- Publish succeeded

-- Sent server data frame to server in 4.9380 ms

-- Send data to server completed in 16.18 ms

[5/5] Waiting for ACK package...

-- Attack detected! Received signal from server to update sequence number

-- Updating sequence number 10.33 ms

-- Safe counter used for updating sequence: 61

-- Sequence number updated to 3

[1/5] Checking key...

-- Key is still valid

[2/5] Transmitting trigger signal to STM32...

-- Constructing frame for transmitting trigger signal to STM32...

-- Command: 4

-- Transmitting trigger signal to STM32

-- Transmit trigger signal to STM32 completed in 9.97 ms

[3/5] Frame processing...

-- Receiving data from STM32

-- Frame parsing completed in 0.34 ms

-- Frame parsing completed in 10.66 ms

[4/5] Construct and send data to server...

Safe counter current: 61

-- Constructing server data frame

-- Sequence number: 3

-- Server data frame constructed in 0.0990 ms

-- Publish succeeded

-- Sent server data frame to server in 1.6740 ms

-- Send data to server completed in 12.71 ms

[5/5] Waiting for ACK package...

-- Received ACK package from server in 386.15 ms

[NICE] Transmission completed!

Start Parsing Data Frame

-- Data frame has been rejected: Invalid sequence number: got 2083395783, expected 0

--> Processed handshake/ecdh in 4ms

-- Received ECDH Handshake message

CONSOLE SERVER

Start Parsing Data Frame

-- Data frame has been rejected: Invalid sequence number: got 1417807245, expected 0

--> Processed handshake/ecdh in 4ms

-- Received ECDH Handshake message

Start Parsing Data Frame

-- Data frame has been rejected: Invalid sequence number: got 3606730241, expected 0

--> Processed handshake/ecdh in 2ms

-- Received ECDH Handshake message

Start Parsing Data Frame

-- Data frame has been rejected: Invalid sequence number: got 1297008668, expected 0

-- Sequence number failed 10 times. Resetting counter...

Server Secret Key type: string

-- Safe Counter: 61

-- Resetting sequence number to 3

Cập nhật sequence number mới

[\*] Publish Signal to handshake-send/ecdh completed

--> Processed handshake/ecdh in 9ms

-- Received ECDH Handshake message

Gửi tín hiệu cập nhật cho gateway

Start Parsing Data Frame

-- Data frame has been rejected: Invalid sequence number: got 356330853, expected 3

--> Processed handshake/ecdh in 1ms

-- Received ECDH Handshake message

Start Parsing Data Frame

npm start

CONSOLE MQTT BROKER

[TOPIC\_SUBSCRIBED] ESP32Client → handshake-send/ecdh

[CLIENT\_DISCONNECTED] ESP32Client

[CLIENT\_CONNECTED] ESP32Client

[TOPIC\_SUBSCRIBED] ESP32Client → handshake-send/ecdh

[CLIENT\_DISCONNECTED] ESP32Client

[CLIENT\_CONNECTED] ESP32Client

[TOPIC\_SUBSCRIBED] ESP32Client → handshake-send/ecdh

[CLIENT\_DISCONNECTED] ESP32Client

[CLIENT\_CONNECTED] ESP32Client

[TOPIC\_SUBSCRIBED] ESP32Client → handshake-send/ecdh

[CLIENT\_DISCONNECTED] ESP32Client

[CLIENT\_CONNECTED] ESP32Client

[TOPIC\_SUBSCRIBED] ESP32Client → handshake-send/ecdh

[CLIENT\_CONNECTED] GatewayClient