PROBLEMS OUTPUT DEBUG CONSOLE PORTS TAILSCALE

TERMINAL Monitor - Task

```
-- Send data to server completed in 15.99 ms
[5/5] Waiting for ACK package...
-- Received ACK package from server in 162.28 ms
[NICE] Transmission completed!
[1/5] Checking key...
-- Key is still valid
[2/5] Transmitting trigger signal to STM32...
-- Constructing frame for transmitting trigger signal to STM32...
-- Command: 1
-- Transmiting trigger signal to STM32
-- Transmit trigger signal to STM32 completed in 9.95 ms
[3/5] Frame processing...
-- Receiving data from STM32
-- Frame parsing completed in 0.44 ms
-- Frame parsing completed in 59.49 ms
[4/5] Construct and send data to server...
Safe counter current: 210
-- Constructing server data frame
-- Sequence number: 2
-- Server data frame constructed in 0.0910 ms
-- Publish succeeded
-- Sent server data frame to server in 3.6550 ms
-- Send data to server completed in 14.78 ms
[5/5] Waiting for ACK package...
-- Received ACK package from server in 78.25 ms
[NICE] Transmission completed!
[1/5] Checking key...
-- Key is still valid
[2/5] Transmitting trigger signal to STM32...
-- Constructing frame for transmitting trigger signal to STM32...
-- Command: 1
-- Transmiting trigger signal to STM32
-- Transmit trigger signal to STM32 completed in 9.96 ms
```

Thứ tự thực hiện quá trình truyền

main* Run Testcases ⊗ 0 ⚠ 0 1 Default (DVGW)

```
[NICE] Everything is done
-> Processed handshake/ecdh in 54ms
-- Received ECDH Handshake message
Start Parsing Data Frame
Derived key successfully: d97622c40d2a4993...
-- Session key generated: d97622c40d2a4993...
-- Derivation index 518
[1/3] Parse data frame completed
-- Parsed Server Data Frame:
```

(index)	Field	Value
0	'Preamble'	'0xaa55'
1	'Identifier ID'	'0x8110910'
2	'Packet Type'	'0x1'
3	'Sequence Number'	0
4	'Nonce'	'75f2cabb8a969eb3ef5735a4a95de851'
5	'Payload Length'	20
6	'Encrypted Payload'	'fd8d9ce8e902bdf827a747d3b9e3f6232df94189'
7	'Auth Tag'	'e902bdf827a747d3b9e3f6232df94189'
8	'End Marker'	'0xaabb'

Phân giải khung truyền

```
[2/3] Parsed sensor data completed
Safe counter current:  24
{ data1: 0, data2: 99, data3: 0, data4: 10 }
```

Trích xuất dữ liệu

```
[3/3] Publish ACK to handshake-send/ecdh completed
[NICE] Everything is done
```

ACK

```
-> Processed handshake/ecdh in 50ms
-- Received ECDH Handshake message
-- Parsed Handshake Frame:
```

(index)	Field	Value

```
🚀 MQTT Broker running on port: 1885
✅ [CLIENT_CONNECTED] mqttjs_887a8152
📥 [TOPIC_SUBSCRIBED] mqttjs_887a8152 → sensors/data
📥 [TOPIC_SUBSCRIBED] mqttjs_887a8152 → encrypt/dhexchange
📥 [TOPIC_SUBSCRIBED] mqttjs_887a8152 → handshake/ecdh
📥 [TOPIC_SUBSCRIBED] mqttjs_887a8152 → metrics/data
📥 [TOPIC_SUBSCRIBED] mqttjs_887a8152 → init/session
✅ [CLIENT_CONNECTED] ESP32Client
📥 [TOPIC_SUBSCRIBED] ESP32Client → handshake-send/ecdh
❌ [CLIENT_DISCONNECTED] ESP32Client
✅ [CLIENT_CONNECTED] ESP32Client
📥 [TOPIC_SUBSCRIBED] ESP32Client → handshake-send/ecdh
```