

Group 28 Interoperability Testing

Author: Haydn Gaedtke

Pre-testing:

1. Adjusted IP, public and private key in both implementation.
2. Run 2 servers
3. Run 2 clients (one on each server)

Testing:

	Process	Expected behavior	Result (Pass / Fail / Unsure)	Comment
1	server_hello	The traffic is captured at the server	Pass	Traffic is captured and servers are joinable. Unsure if hello message read from other server as server does not print
2	client_update_request	A client list is sent back to the server.	Pass	Client update request is sent and received when clients join or leave.
3	Sending message (chat or public_chat) from clients.	The message successfully appears in the correct format at target client (s).	Fail	The message is sent from our server to theirs however not vice-versa. Other client is not able to read message as signature is not verified.
4	Updated online users	When a new user connects or a user disconnect in the distant server, the clients list on left-hand side menu is updated.	Pass	Client lists are updated from both servers

Screenshot:

1. Server hello and
2. client request

Group 28's server:

```
}
Client close the connection
Received msg: signed_data server_hello
null
Can not find the servers public key: 127.0.0.1:8080
Received msg: client_update_request
Received msg: client_update
```

Our server:

```
{"type": "client_update_request"}
here
ha
-----
WSMessage(type=<WSMsgType.TEXT: 1>, data='{ "type": "signed_data", "data": { "type": "hello",
9w0BAQEFAAOCAQ8AMIIBCgKCAQEAjoFb8GtXKpst1ZVcRx9r\\nIqe48dWj02BiNgAnrSjTprWzHC0bIdXUhwMDHp/Ls
FdqBn4L1oEC/ScehCTXi/UyNbD024z\\nIBLXMiiYTT+rHzrih1AYvoke/0upXvGCBumhcyKpyiUCrs0BOUhdSJVJvMM
60cCewGEDBkY\\nyykVQ2SIFvcd6wAvWit3UCXuaru56JaBwzeSseYuCPutnCVficWIEfj7WzotJxsj\\n+QIDAQAB\\n
IUinwb3Lvl0PhEopYSy/LAYold8a54VC2uTFq7XqvAHVqHEGemDm7wfXxLb10W1kfom9uQFzMQIDnDecC77Wi8TiPKA
Ml/xt16r2IY9bpYxdVzNF0m5CPCpt+bI2E9NL/IvNKGpqVaE0bNKGBJijK+HJ2bsmhBm1MSwLWpgYETgd8a5iQRqkjRk
dXPQFhesgRfmGX+QbaDmADYZP07vS8TITdtdLbg==}', extra='')
127.0.0.1
signed_data_hello
[2024-10-18 18:32:35.886652]: CLIENT 52a361fc-822d-46fe-b168-d93f36e9f4c8 CONNECTED
-----
```

3. Sending message

Group 28's server:

```
}
Client close the connection
Received msg: signed_data server_hello
null
Can not find the servers public key: 127.0.0.1:8080
Received msg: client_update_request
Received msg: client_update
Received msg: signed_data public_chat
    Message signature verify failed.
Received msg: signed_data public_chat
    Message signature verify failed.
Received msg: signed_data hello
sending client update to 127.0.0.1:8080
Received msg: signed_data public_chat
```

Confusingly, I was able to send messages via our client to the other groups server, however I could not read the contents due to the message signature unable to being verified. When sending a message from the other groups client to our server, there was no packet being sent and therefore was not showing any sign on our server.