Progress Report 1: Code Generation

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Overview of the Progress

- ► Finish the refinement of the generated code and able to communicate once between alice and bob.
- ▶ Begin to change the implementation of the code generation module based on the implementation.

Modeling

Running Result

-----STATE__Verify_State2

FINISHED!!!

```
:lexma@clexma-ThinkPad-P52s:~/Desktop/generatedS sudo ./Alice
                                                                -----STATE init
 lexma@clexma-ThinkPad-P52s:~/Desktop/generated$ sudo ./Bob
                                                                .....STATE Alice State 1
-----STATE init
                                                                serialized data: 0.1234.0.0.default
-----STATE Bob State 1
                                                                Receive message
                                                                Alice Encryption End: hexreee0eJeJeve:eee[0eBee%
ethernet frame received
                                                                send Broadcast
length received
                                                                here
id received :0
                                                                Lookup
data received: hexrooo0oJoJovo:ooo[0oBoo%o
                                                                lookup end
ethernet frame received end
                                                                getDevice
endloop data:hexreee0eJeJeve:eee[0eBee%
                                                                getDevice end
Receive message end
                                                                sendEtherPacket
Send ether packet: length = 32. from = 0x7fff133114b4. to = 0x7fff13311344
encrypted received:hexreee0eJeJeve:eee[0eBee%
                                                                sendEtherPacket end
DecKey: bbbbbbbbbbbbbbbb
                                                                send Broadcast End
decrypted: 0,1234,0,0,default
                                                                -----STATE Alice_State_2
0,1234,0,0,default
                                                                Receive message
0,1234,0,0,default
                                                                ethernet frame received
decryption end
                                                                oiioo1ooo9ooo: oooJooY:oEo4o
-----STATE Bob State 2
                                                                ethernet frame received end
serialized data: 1.0.1234.4321.default
                                                                Receive message end
Enckey: aaaaaaaaaaaaaaa
                                                                decryption: aaaaaaaaaaaaaaa
eileeleeegeen End: eeeleeV:eFe4e
                                                                eiiee1eee9eeeeeved:eeeJeeV:eEe4e
send Broadcast
                                                                DecKey: aaaaaaaaaaaaaaa
here
                                                                decrypted: 1.0.1234.4321.default
lookup
                                                                1.0.1234.4321.default
lookup end
                                                                decryption end
getDevice
                                                                -----STATE Verify State
getDevice end
                                                                -----STATE Alice State 3
sendEtherPacket
                                                                serialized data: 0.4321.0.0.default
Send ether packet: length = 32, from = 0x7fff883f2af4, to = 0x7fff883f
                                                                sendEtherPacket end
                                                                send Broadcast
send Broadcast end
                                                                here
-----STATE Bob State 3
                                                                lookup
ethernet frame recelved
                                                                lookup end
lenath received
                                                                getDevice
ld received :0
                                                                getDevice end
data received: S\D|i↔T
                                                                sendEtherPacket
9v~?ed\.emx`eR
                                                                Send ether packet: length = 32, from = 0x7fff133114b4, to = 0x7fff13311344
ethernet frame received end
                                                                sendEtherPacket end
endloop data:S\D|i++T
                                                                send Broadcast End
9v~?ed\.emx`eRee
                                                                -----STATE final
encrypted received:S\D|i��T
                                                                FINISHED!!!
9v~?ed\.emx`eRee
decrypted: 0.4321.0.0.default
0.4321.0.0.default
0.4321.0.0.default
```

Problems

- ▶ Serialization \rightarrow Encryption \rightarrow Decryption \rightarrow Deserialization(ERROR)
- ► Identification of the package: currently the package are identified with the id and ethernet protocol number 0x888f.
- ► Length of the array when receiving.

Questions

► How "automatic" should we be?

Later Work