

1. Binary message.

message structure: [header, user_data, tail]

header:

header =

byte 1	byte 2	byte 3	byte 4
msg_size LSB	msg_size MSB	flags 8bit	cmdID 8bit

message size (**msg_size**) includes size of header, user_data and tail.

cmdID=0x00 is special echo command and should not be used.

flags:

bit 8	bit 7	bit 6	bit 5
reserved	reserved	reserved	reserved

bit 4	bit 3	bit 2	bit 1
reserved	INTEGRITY_STAMP	SUPPRESS_REPLY_HEADER	EXTENDED_HEADER

EXTENDED_HEADER : should be 0 for now.

SUPPRESS_REPLY_HEADER:

if 0:

reply will include header: [header, data]. this is recommended option.

if 1:

no header inserted in reply. reply structure: [data]

INTEGRITY_STAMP:

if 0:

tail will not include integrity stamp.

if 1:

a) tail will include 4 bytes to check message integrity: |msg_size LSB | msg_size MSB | 0x00 | 0x00 |

b) reply will also include integrity stamp of the same structure

2. [Reply](#)

reply syntax: [header, data, tail]

header:

header =

[	byte 1	|	byte 2	|	byte 3	|	byte 4]
[	msg_size LSB	|	msg_size MSB	|	0x00	|	replyStatus]

message size (**msg_size**) includes size of header and data.

replyStatus :

0x00 - NO ERROR

0x01 - command not found

0x02 - test of integrity stamp failed

0x03 - message length is too long

tail:

If command includes integrity stamp bit then reply will include tail automatically in following format:

tail =

[	byte 1	|	byte 2	|	byte 3	|	byte 4]
[	msg_size LSB	|	msg_size MSB	|	0x00	|	0x00]