

**Structure of Messages:****Message types**

ID:	
0	Relay chat message
1	Join relay message
2	Leave relay message
3	Keep-alive relay message
128	Join request
129	Join reply (IP-list + History)
130	Old chat message request
131	Old chat message reply

**Chat relay message**

Beg	End	Len	
0	0	1	Value 0 (Chat relay message)
1	8	8	Unique message ID
9	12	4	Sender IP
13	16	4	Number of old ids
17	20	4	Nick length
21	24	4	Message length
25	?	###	Old message ID:s (?*8B)
?	?	###	Nick of sender
?	?	###	Actual message

**Join relay message**

Beg	End	Len	
0	0	1	Value 0 (Chat relay message)
1	8	8	Unique message ID
9	12	4	Sender IP
13	16	4	Number of old ids
17	20	4	Nick length
21	24	4	Message length
25	?	###	Old message ID:s (?*8B)
?	?	###	Nick of sender

**Leave relay message**

Beg	End	Len	
0	0	1	Value 0 (Chat relay message)
1	8	8	Unique message ID
9	12	4	Sender IP
13	16	4	Number of old ids
17	20	4	Nick length
21	24	4	Message length
25	?	###	Old message ID:s (?*8B)

?	?	###	Nick of sender
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**Keep-alive relay message**

Beg	End	Len	
0	0	1	Value 3 (Keep-alive relay message)
1	8	8	Unique message ID
9	12	4	Sender IP

**Join request message**

Beg	End	Len	
0	0	1	Value 128 (Join request message)
1	8	8	Unique message ID
9	12	4	Length of nick
13	?	###	Nick of sender

**Join reply message**

Beg	End	Len	
0	0	1	Value 129
1	4	4	Old message count
5	8	4	Ip-list length
9	?	###	Old message ids (n*8B)
?	?	###	IP-list (n * 4B)

**Old message request**

Beg	End	Len	
0	0	1	Value 130
1	8	8	Requested message ID

**Old message answer**

Beg	End	Len	
0	0	1	Value 131
1	4	4	Old message type
5	12	8	Old message UID
13	16	4	Nick length
21	24	4	Message length
?	?	###	Nick of sender
?	?	###	Actual message