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THE CHATOS PROTOCOL
Version 1.0

?. ChatOS Packets

ChatOS can receive 5 types of packets which are the followings :

        opcode   operation
          1   Connection request (CR)
          2   Request personnal message (RPM)
          3   Send personnal message (SPM)
          4   Send message for all (SMA)
          5   TCP private connexion (PC)
          6   Error code (ERROR)

The opcode is the header of each sended packets.

ChatOS Protocol

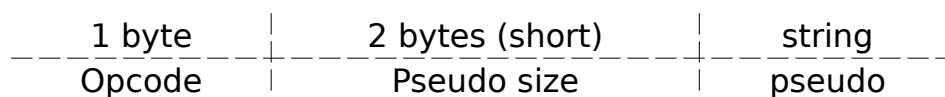| 1 byte	2 bytes (short)	string
Opcode	Pseudo size	pseudo

Figure 1: CR packet

The CR packet (with opcode 1) have the Figure1 format. The pseudo is encoded in UTF-8. The pseudo need to not be used by a current user, you will get an error and you will not be able to connect to ChatOS if you try to connect with a used pseudo.
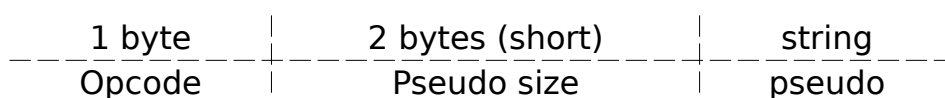
1 byte	2 bytes (short)	string
Opcode	Pseudo size	pseudo

Figure 2: RPM packet

The RPM packet (with opcode 2) have the Figure2 format. The pseudo is encoded in UTF-8. The server will answer if it is possible to send a message or not.
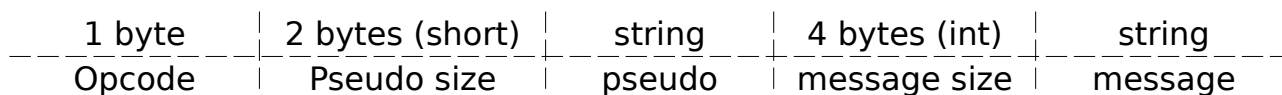
1 byte	2 bytes (short)	string	4 bytes (int)	string
Opcode	Pseudo size	pseudo	message size	message

Figure 3: SPM packet

The SPM packet (with opcode 3) have the Figure3 format. The pseudo adn the message is encoded in UTF-8. This request assume that the RPM packet has been send and followed by a favorable answer. The need to send before a RPM packet is necessary to lightened the network because we don't want to send a message when the recipient does not exist (or have a problem).
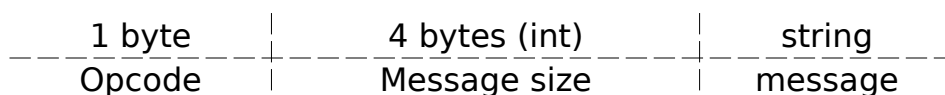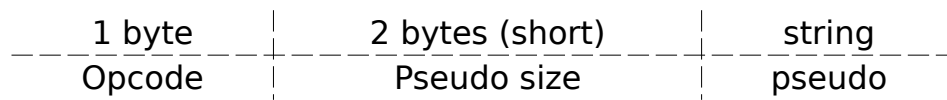
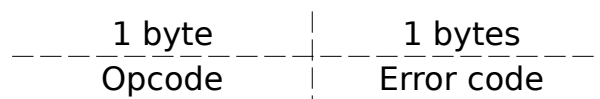| 1 byte	4 bytes (int)	string
Opcode	Message size	message

Figure 4: SMA packet

The SMA packet (with opcode 4) have the Figure4 format. The message is encoded in UTF-8.

ChatOS Protocol

1 byte	2 bytes (short)	string
Opcode	Pseudo size	pseudo

Figure 5: PC packet

The PC packet (with opcode 5) have the Figure5 format. The pseudo is encoded in UTF-8. The pseudo need to not be used by a current user, you will get an error and you will not be able to connect to ChatOS if you try to connect with a used pseudo.

1 byte	1 bytes
Opcode	Error code

Figure 6: ERROR packet

The CR packet (with opcode 1) have the Figure1 format. The pseudo is encoded in UTF-8. The pseudo need to not be used by a current user, you will get an error and you will not be able to connect to ChatOS if you try to connect with a used pseudo.