P*rnProtocol Documentation

Payload Types

Payload name	Payload type as byte
Message ID	0x01
Identifier	0x02
Member ID	0x03
Login	0x04
Flag	0x05
Error	0xFF

Basic payload description

```
+-----------------+----------------+
|                 |                |
| Payload Length  | Payload Type   |
|                 |                |
+-----------------+----------------+
|                                  |
|            Payload Data          |
|                                  |
+----------------------------------+
```
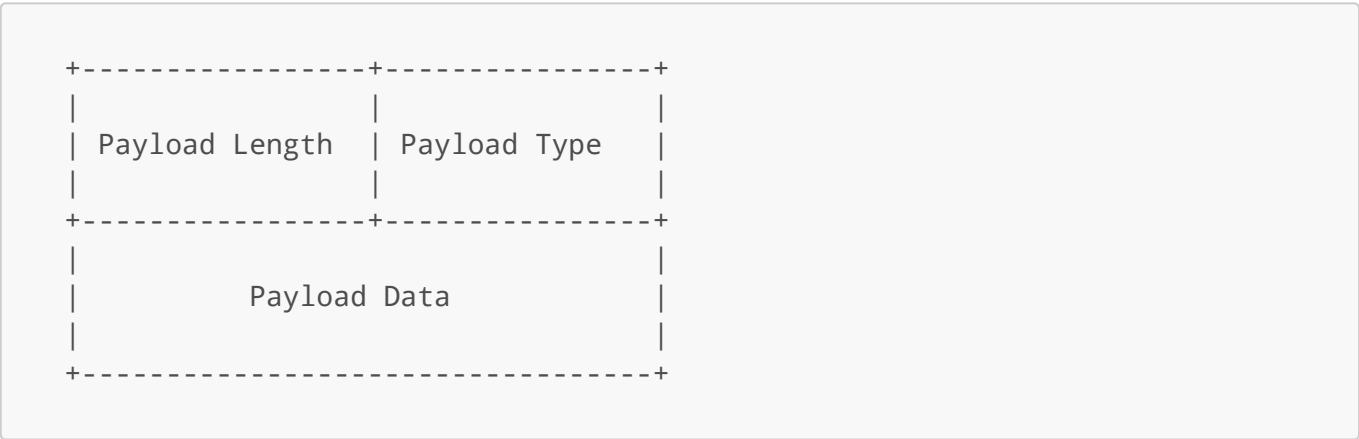
The packet diagram shows the structure of a payload. First byte is the payload length. The type is the one byte after the payload length. The data of the payload is not limited but there are some restrictions(see restrictions).

Restrictions

The server accepts a maximum of 32 bytes from client. The first payload must always be the 'Message ID Payload' and the second payload the 'Identifier Payload'. As maximum the server can parse three payloads. Only 4 message exchanges are allowed per session.

Payloads

Message ID payload

> Payload type is 0x01
> Error codes are from 0x10 to 0x1F
> Data is one byte which contains the message id starting at 0

This payload contains a message id which is increased with every message exchange.

Identifier payload

> Payload type is 0x02
> Error codes are from 0x20 to 0x2F
> Data is the identifier

This payload contains an identifier which is used to identify the connection.

Member ID payload

> Payload type is 0x03
> Error codes are from 0x30 to 0x3F
> Data is one byte which contains a code. Additionaly the server can send some extra information.

This payload controls the creation of new logins for the clients.

Code Server	Code Client	Definition
0x01	-	MemberID requested.
-	0x02	New MemberID required.
0x03	-	Everthing following after this byte is the username.
0x04	-	Everthing following after this byte is the password.

Login payload

> Payload type is 0x04
> Error codes are from 0x40 to 0x4F
> Data is one byte which contains a code.

This payload is used to request a login to the server. If this login is successful the server will answer with code 0x02 and the client can request a flag.

Code Server	Code Client	Definition
-	0x01	Login request by client.
0x02	-	Successfull Login.

Flag payload

> Payload type is 0x05
> Error codes are from 0x50 to 0x5F
> Data is one byte which contains a code. When the Server uses this payload the flag appears.

Code Server	Code Client	Definition
-	0x01	Flag request.

Error Payload

> **This is a Server only Payload!**
> Payload type is 0xFF
> No error code is needed for error payload
> Data is one byte which contains a code.

This payload is used to output all kinds of errors. For better readability the error payload is always sent alone.

Server Code	Definition
0x01	Recieved to many bytes only 32 bytes in total are allowed.
0x02	Recieved a payload with length < 2. Or very large size.
0x03	Calculated payload length differs from recieved payload length.
0x04	Recieved unknown payload type.
0x05	Recieved less than three payloads.
0x06	First payload is not Message ID.
0x07	Second payload is not Identifier.
0x08	Found a payload type a second time.
0x09	Recieved to many messages in this session.
0x10	Did not expect payload.
0x11	Recieved invalid message ID.
0x20	Did not expect payload.
0x21	Recieved invalid identifier.
0x30	Did not expect payload.
0x31	Client used server code 0x01.
0x32	Client used server code 0x03.
0x33	Client used server code 0x04.
0x34	Unknown code from client.
0x40	Did not expect payload.
0x41	Username is to short/long.
0x42	Password is to short/long.
0x43	Recieved invalid username.
0x44	Recieved invalid password.
0x45	Client send login without knowing the credentials.
0x46	Client is already logged in.

Server Code	Definition
0x47	Unknown code from client.
0x50	No Flag at this point.