# Wave Messaging Protocol

Use Protobuf 3 to encode message.

## Method

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Value** | **Direction of flow** | **Description** |
| Reserved | 0 |  |  |
| CONNECT | 1 | Client to Server | Client request to connect to Server |
| CONNACK | 2 | Server to Client | Connect acknowledgment |
| PUBLISH | 3 | Client to Server or Server to Client | Publish message |
| PUBACK | 4 | Client to Server or Server to Client | Publish acknowledgment |
| SUBSCRIBE | 5 | Client to Server | Client subscribe request |
| SUBACK | 6 | Server to Client | Subscribe acknowledgment |
| UNSUBSCRIBE | 7 | Client to Server | Unsubscribe request |
| UNSUBACK | 8 | Server to Client | Unsubscribe acknowledgment |
| PINGREQ | 9 | Client to Server | PING request |
| PINGRESP | 10 | Server to Client | PING response |
| DISCONNECT | 11 | Client to Server |  |

First byte lowest 4 bits

## Version

First byte highest 4 bits

## WMP Control Packets

CONNECT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Key | Type | Range | Required | Description |
| clientId | int64 | 0 ~ 2^63-1 | True | Client Unique Id |
| token | string | 0 ~ 100(byte) | True | Token generated by server after client login |

CONNACK

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Key | Type | Range | Required | Description |
| clientId | int64 | 0 ~ 2^63-1 | True | Client Unique Id |
| returnCode | boolean | 0 ~ 100(byte) | False | Response code, 0 success, 1 fail |