Bilibili 姬娘

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Bug

* 弹幕 不能发 http 会被河蟹，用官网网页一样不能发

# 连接服务器

首先URL中的ID和真正的房间ID不一样，要先请求https://api.live.bilibili.com/room/v1/Room/room\_init?id=URL中的ID获取房间ID。

返回的是JSON数据，['data']['room\_id']就是真正的房间ID

然后选择连接方式

1. wss连接 wss://broadcastlv.chat.bilibili.com:2245/sub
2. ws链接
3. tcp连接 broadcastlv.chat.bilibili.com 端口 2243

# 封包格式

封包由头部和数据组成，**字节序均为大端模式**

头部格式：

| **偏移量** | **长度** | **含义** |
| --- | --- | --- |
| 0 | 4 | 封包总大小 |
| 4 | 2 | 头部长度 |
| 6 | 2 | 协议版本，目前是1 |
| 8 | 4 | 操作码（封包类型） |
| 12 | 4 | sequence，可以取常数1 |

已知的操作码：

| **操作码** | **含义** |
| --- | --- |
| 2 | 客户端发送的心跳包 |
| 3 | 人气值，数据不是JSON，是4字节整数 |
| 5 | 命令，数据中['cmd']表示具体命令，详情请看 [命令包](#_命令包) |
| 7 | 认证并加入房间 |
| 8 | 服务器发送的心跳包 |

数据格式：一般为JSON字符串UTF-8编码

# 认证并加入直播间

连接后客户端先发认证包

{

"uid": 0表示未登录，否则为用户ID,数字类型,

"roomid": 房间ID,数字类型,

"protover": 1,

"platform": "web",

"clientver": "1.4.0"

}

Flash版 已测试通过 20180615

{

.platform = "flash",

.clientver = "2.2.8-74d8fb3d",

.roomid = roomId,

.uid = uid,

.protover = 2

}

' ######################区分大小写，不可随便更改 key 的大小写，必须与下列key一致######################

' platform、clientver、roomid、roomid、uid、protover

' roomId 和 uid 必须是数值形式

示例（已通过测试）：0000006e0010000100000007000000017b22706c6174666f726d223a22466c617368222c22636c69656e74766572223a22322e322e382d3734643866623364222c22726f6f6d6964223a343233363334322c22756964223a35323135353835312c2270726f746f766572223a327d

# 心跳包

客户端每隔60秒向服务器发送一个心跳包（wireshark抓包结果是官方70秒发送一次

客户端发送心跳包

00000010001000010000000200000001

1.第一次发送心跳包，服务器会回复一个心跳包+人气值包 0000001000100001000000080000000100000014001000010000000300000001000023da

2.往后服务器都是返回直播间人气值包 0000001400100001000000030000000100002414

4字节00002414 &H00002414 十进制为 9236；直播页面上显示 ‘-’,表示 轮播

# 命令包

根据前端代码，数据也可能是多条命令的数组，不过我只收到过单条命令。每条命令中['cmd']表示具体命令

已知的命令：

| **命令** | **含义** |
| --- | --- |
| DANMU\_MSG | 收到弹幕 |
| SEND\_GIFT | 有人送礼 |
| WELCOME | 进入直播间 |
| WELCOME\_GUARD | 舰长/提督/总督大人 =‿=✧进入直播间 |
| SYS\_MSG | 系统消息 |
| PREPARING | 主播准备中 |
| LIVE | 直播开始 |
| WISH\_BOTTLE | 许愿瓶？ |
| ROOM\_BLOCK\_MSG | 禁言？ |
| ROOM\_RANK | 小时榜 163 后面带的数字表示 排名 |
| COMBO\_END | 组合礼物？ |
| GUARD\_MSG | 在某直播间开通了总督广播、总督登船 |
| ROOM\_SILENT\_OFF | 悄悄关播了？正常关播？ |
| ROOM\_SILENT\_ON | 悄悄开播了？ |
| TV\_START | 小电视飞船抽奖开始 |
| TV\_END | 小电视飞船抽奖结束 |
| GUARD\_BUY | 上船 总督/提督/舰长 |
| SPECIAL\_GIFT | 节奏风暴 |
| RAFFLE\_START | 摩天大楼 抽奖开始 |
| RAFFLE\_END | 摩天大楼 抽奖结束 |
| EVENT\_CMD | {"roomid":48499,"cmd":"EVENT\_CMD","data":{"event\_type":"GIFT-44837","event\_img":"http:\/\/i0.hdslb.com\/bfs\/live\/9a87ac24fd7660c50af7f5269b8425397e34bdb0.png"}} |
| CUT\_OFF | 直播被B站管理员强制关了 |
| ROOM\_ADMINS | 管理员变化 |
| PK\_MATCH  PK\_PRE  PK\_START  PK\_END  PK\_PROCESS  PK\_SETTLE  PK\_MIC\_END | 连麦PK命令 |
| NOTICE\_MSG | 分区广播，如：娱乐区广播 |
| GUARD\_LOTTERY\_START | 购买守护抽奖 |

# 示例弹幕

## 弹幕1

{"info":[[0,1,25,16777215,1529054227,"1529053605",0,"30b765ba",0],"对啊",[2235182,"坂本一米八",0,0,0,"10000",1,""],[12,"装逼王","坂本叔",1000,10512625,""],[26,0,5805790,">50000"],["title-111-1","title-111-1"],0,0,{"uname\_color":""}],"cmd":"DANMU\_MSG"}

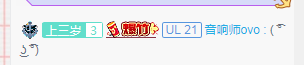


## **弹幕2**

{"info":[[0,1,25,14893055,1529079300,-295036193,0,"1ba8d299",0]," 龙宝今天打算几点下播呀",[10359365,"gakkiがだいすき",1,0,0,"10000",1,""],[8,"上三岁","爱你的龙三岁ovo","927795",5805790,""],[10,0,9868950,">50000"],[],0,3,{"uname\_color":""}],"cmd":"DANMU\_MSG"}

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{"info":[[0,1,25,14893055,1529086644,2121514077,0,"f94ec838",0],"( ͡° ͜ʖ ͡°)",[15758962,"音响师ovo",0,0,0,"10000",1,""],[3,"上三岁","爱你的龙三岁ovo","927795",6406234,""],[21,0,5805790,">50000"],["title-89-1","title-89-1"],0,3,{"uname\_color":""}],"cmd":"DANMU\_MSG"}



## **弹幕3**

{"info":[[0,1,25,16772431,1529081815,"1529081661",0,"fade2407",0]," (;¬\_¬)你们都是手机吗",[10493701,"椎名真白ぞ",0,1,1,"10000",1,""],[10,"生放送","蓝原延珠\_","10112",10512625,""],[36,0,10512625,34367],["title-144-1","title-144-1"],0,0,{"uname\_color":""}],"cmd":"DANMU\_MSG"}



## **弹幕4（自己在自己直播间发弹幕）**

{"info":[[0,1,25,16777215,1529084059,"1529084052",0,"2f76abc2",0]," 测试",[52155851,"闪星2",1,0,0,"10000",1,""],[],[5,0,9868950,">50000"],[],0,0,{"uname\_color":""}],"cmd":"DANMU\_MSG"}

{"text":"测试","uid":52155851,"nickname":"闪星2","uname\_color":"","timeline":"2018-06-16 11:37:58","isadmin":1,"vip":0,"svip":0,"medal":[],"title":[],"user\_level":[5,0,9868950,">50000"],"rank":"10000","teamid":0,"rnd":1529120270,"user\_title":"","guard\_level":0,"activity\_info":{"uname\_color":""}}

## **弹幕5**

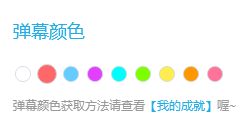
{"info":[[0,5,25,16772431,1529086308,"1529083722",0,"ada5814f",0],"哈哈哈哈.....",[177836752,"专宠龙宝的主机ovo",1,1,1,"10000",1,"#7c1482"],[17,"上三岁","爱你的龙三岁ovo","927795",16752445,""],[41,0,16746162,10810],["title-82-3","title-82-3"],0,1,{"uname\_color":""}],"cmd":"DANMU\_MSG"}





鸡（滑稽

[0,1,25,16777215,1529054227,"1529053605",0,"30b765ba",0] 表示 ？，？，fontsize，弹幕颜色（



|  |  |  |
| --- | --- | --- |
| 10进制值 | 16进制值 | 颜色 |
| 16777215 | FFFFFF | 没有颜色（黑色） |
| 16738408 | 0xff6868 | red |
| 6737151 | 0x66ccff | blue |
| 14893055 | 0xe33fff | purple |
| 65532 | 0x00fffc | Cyan |
| 8322816 | 0x7eff00 | green |
| 16772431 | 0xffed4f | yellow |
| 16750592 | 0xff9800 | orange |
| 16741274 | 0xff739a | pink |

），接收弹幕时间，发弹幕时间，？，？，？

"对啊"表示 弹幕

[2235182,"坂本一米八",0,0,0,"10000",1,""] 表示 用户Id,用户名，1为房管0是普通(自己在自己直播间总为1)，vip,svip，rank，？，昵称颜色（

|  |  |  |
| --- | --- | --- |
| 总督 | 提督 | 舰长 |
| 紫色 | 红色 | 蓝色 |
| 可输入40字 | 可输入40字 | 无特权 |

）

[12,"装逼王","坂本叔",1000,10512625,""] 表示 勋章级别，勋章，勋章主播，？，？，？

[26,0,5805790,">50000"] 表示 用户等级，？，？，？

0,0,{"uname\_color":""} ？，0 无 1总督2 提督 3 舰长，？

## **老爷 年费老爷 进入直播间**

{"cmd":"WELCOME","data":{"uid":36156495,"uname":"无殇の轮回","is\_admin":false,"vip":1}}



## **老爷 年费老爷 进入直播间**

{"cmd":"WELCOME","data":{"uid":48644363,"uname":"伊人下妆","is\_admin":false,"svip":1}}

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## **一组礼物**

{""cmd"":""COMBO\_END"",""data"":{""uname"":""二五仔-LC"",""r\_uname"":""两仪滚"",""combo\_num"":5,""price"":100,""gift\_name"":""凉了"",""gift\_id"":20010,""start\_time"":1529072473,""end\_time"":1529072476}}

## **许愿瓶？**

{"cmd":"WISH\_BOTTLE","data":{"action":"update","id":8243,"wish":{"id":8243,"uid":183430,"type":1,"type\_id":3,"wish\_limit":99999,"wish\_progress":41339,"status":1,"content":"猛男勋章领取处","ctime":"2018-01-27 18:53:19","count\_map":[1,10,100]}}}

## **节奏风暴**

开始

{"cmd":"SPECIAL\_GIFT","data":{"39":{"id":313332,"time":90,"hadJoin":0,"num":1,"content":"跳跳猪~略略略！皮一下真的很快乐！","action":"start","storm\_gif":"http:\/\/static.hdslb.com\/live-static\/live-room\/images\/gift-section\/mobilegift\/2\/jiezou.gif?2017011901"}}}

结束

{"cmd":"SPECIAL\_GIFT","data":{"39":{"id":313332,"action":"end"}}}





[总督] [UL 10] 村雨澪音 2018-06-17 20:45:15

哈哈哈

{"info":[[0,1,25,16777215,1529239515,335129927,0,"7dc13e6a",0],"叫你皮",[234331375,"mirror镜悬",0,0,0,"5000",1,""],[2,"SA0","小Y\_MRY",470,6406234,""],[5,0,9868950,">50000"],[],0,0,{"uname\_color":""}],"cmd":"DANMU\_MSG"}

#### 参考：

#### <https://blog.csdn.net/xfgryujk/article/details/80306776>