Yeelight WiFi Light Inter-Operation Specification

UDP

Release R2

www.yeelight.com

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1. Introduction

This document is an extension of <YEELIGHT_INTER-OPERATION_SPEC>, Please read the document first.

2. Overview

- UDP port is 55444.
- JSON format packets reuse TCP format, adding Token fields to manage each UDP session .
- Except for udp_sess_new and udp_sess_keep_alive UDP messages, there is no response frame.
- The maximum number of UDP sessions is four, and when four are exceeded, the oldest ones are replaced.
- Coexist with TCP mode, the function switch synchronizes with the original Yeelight APP "LAN Control" function switch.

3. UDP session management

a) Creat new UDP session

3rd party device → light

{"id":1,"method":"udp_sess_new","params":[]}

light → 3rd party device

{"id":1,"method":"udp_sess_token","params":{"token":"1420cc0cfd377cf441181585db77611c"}}

Eg.

```
{
   "id": 2,
   "method": "udp_sess_token",
   "params": {
      "token": "1420cc0cfd377cf441181585db77611c"
   }
}
```

b) The use of the token

The token field is added in the subsequent communication message

3rd party device → light

{"id":1,"method":"set_bright","params":[10, "smooth",
500],"token":"1420cc0cfd377cf441181585db77611c"}

Eg.

```
{
   "id": 1,
```

```
    "method": "set_bright",
    "params": [10, "smooth", 500],
    "token": "1420cc0cfd377cf441181585db77611c"
}
```

c) Heartbeat

The third party device sends the heartbeat to the lamp once every 10s. If it does not receive the heartbeat response packet of the lamp for more than 4 times, the current link should be judged to be abnormal and operations such as reconnection should be performed.

3rd party device → light

{"id":1,"method":"udp_sess_keep_alive","params":["keeplive_interval","10"],"token":"1420cc0cfd377cf441181585db77611c"}

light → 3rd party device

{"id":1,"result":["ok"],"token":"1420cc0cfd377cf441181585db77611c"}

4. Support UDP device identification

Not all devices support UDP connections, so it is possible to identify the key if the supported method name in the device reply packet contains the "udp_sess_new" method

Eg.

```
NOTIFY * HTTP/1.1
Host: 239.255.255.250:1982
Cache-Control: max-age=3600
Location: yeelight://192.168.31.253:55443
NTS: ssdp:alive
Server: POSIX, UPnP/1.0 YGLC/1
id: 0x000000000649f51e
model: lamp19
fw_ver: 4
support: get_prop set_default set_power toggle set_bright
set_rgb set_hsv start_cf stop_cf set_scene cron_add cron_get
cron_del set_ct_abx set_adjust adjust_bright adjust_ct
adjust_color set_music set_name udp_sess_new udp_sess_keep_alive
udp_chroma_sess_new
power: off
bright: 100
color_mode: 2
ct: 4500
rgb: 13395711
hue: 359
sat: 100
```

```
name:
```

5. Reference

https://www.yeelight.com/download/Yeelight_Inter-Operation_Spec.pdf
https://www.yeelight.com/en_US/developer

6. Document Revision History

This chapter describes the changes to Yeelight WiFi Light Inter-Operation Specification UDP from the previous revision.

Updated Content

Overview
The use of the token