HCRP 协议工程使用文档

一、状态

（一）BT_STATUS_CONN_HCRP_CH

HCRP 通道建立成功会发来此消息给上层，表示将要开始接收数据。

消息在 app_comm_edr.c 的

static int *bt_comm_edr_status_event_h andler*(struct bt_event * bt)

函数中

（二）BT_STATUS_DISCONN_HCRP_CH

数据接收完成后，远端会主动断开 hcrp 的通道，可以通过此消息来判断传输结束。

二、接口

接口示例放于 app_comm_edr.c 中

u16 printer_port_status()

用于将打印机状态返回给协议栈，应答给远端

Printer Port Status Bit Meanings

Bits	Field	Description
7..6	Reserved	Reserved for future use; device shall return these bits set to zero.
5	Paper Empty	1= Paper Empty, 0 = Paper Not Empty
4	Select	1 = Selected, 0 = Not Selected
3	Not Error	1 = No Error, 0 = Error
2..0	Reserved	Reserved for future use; device shall return these bits set to zero.

图 1.1

printrt_status_bit 赋值的 bit 介绍如图 1.1

u8 hcrp_user_cmd(const u8 *packet,int size, u8 *send_cmd)

用于厂商自定义命令解析

Value	Description	Client Status	Server Status
N	The PDU ID field identifies the type of PDU (i.e., its meaning and that of its parameters). *	Whether the PDU is MANDATORY or OPTIONAL to implement on the client	Whether the PDU is MANDATORY or OPTIONAL to implement on the server
0x0000	Reserved	N/A	N/A
0x0001	CR_DataChannelCreditGrant	MANDATORY	MANDATORY
0x0002	CR_DataChannelCreditRequest	MANDATORY	MANDATORY
0x0003	CR_DataChannelCreditReturn	OPTIONAL	OPTIONAL
0x0004	CR_DataChannelCreditQuery	OPTIONAL	OPTIONAL
0x0005	CR_GetLPTStatus	OPTIONAL	OPTIONAL
0x0006	CR_Get1284ID	OPTIONAL	OPTIONAL
0x0007	CR_SoftReset	OPTIONAL	OPTIONAL
0x0008	CR_HardReset	OPTIONAL	OPTIONAL
0x0009	CR_RegisterNotification	OPTIONAL	OPTIONAL
0x000A	CR_NotificationConnectionAlive	OPTIONAL	OPTIONAL
0x000B-0x7FFF	Reserved	N/A	N/A
0x8000-0xFFFF	Vendor-specific	OPTIONAL	OPTIONAL

Table 6.1: Control Channel PDU IDs

图 1.2

命令解析应答，协议栈暂做了

CR_DataChannelCreditGrant

CR_DataChannelCreditRequest

CR_GetLPTStatus

这三条命令解析应答。

void hcrp_rx_data_packet(u8 *packet, u16 size)

接收到的数据

三、SDP 配置

定义在 apps/demo/demo_edr/bt_music.c 中

```
1. const char Service_name[] = "Hardcopy Cable Replacement";
2. const char Ieee_1284id[] = "MFG:Jieli;CMD:PT-CBP;MDL:JL-001;CLS:PRINTER;CID:
   Jieli MobilePrinter TypeA1;";
3. const char Device_name[] = "JL-001";
4. const char Friendly_name[] = "Jieli Bluetooth Printer";
```

需要根据需求进行修改

7.3.1 Service Name

The Service Name string provides a displayable text name that can be directly transmitted to the user. A suggested value for devices that include this optional string and choose not to localize is “Hardcopy Cable Replacement”.

Maximum length of the Service Name attribute is 248 bytes; strings should not be null terminated.

Note that the Service Name attribute as defined in [6] is a SDP attribute ID offset. Thus, if Service name is included in the SDP record then a LanguageBaseAttributeIDList attribute must also be present.

7.3.2 1284ID

The 1284ID shall be as defined in [8].

The string shall be an exact copy of the string defined in [8] including the initial 2-byte length field.

The length of the string can be up to 65535 bytes as defined in [8].

7.3.3 Device Name

The Device Name string provides a displayable text name that can be directly transmitted to the user.

Maximum length of the Device Name attribute is 248 bytes; strings should not be null-terminated.

The Device Name is UTF-8 encoded.

The default Device Name should be chosen by the manufacturer; it is not expected that the Device Name is configurable by the user.

7.3.4 Friendly Name

The Friendly Name string provides a displayable text name that can be directly transmitted to the user.

Maximum length of the Friendly Name attribute is 248 bytes; strings should not be null-terminated.

The Friendly Name is UTF-8 encoded.

The default Friendly Name should be set to the same as Device name; the Friendly Name may be configurable by the user.

源自 HCRP_SPEC 文档

四、工程说明

工程 apps/demo/demo_edr

common/config/include/bt_profile_cfg.h

```
#define USER_SUPPORT_PROFILE_HCRP    1
```


珠海市杰理科技股份有限公司

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