C2EU Service Manual

--------Software--------

Revision

Version	Name	Update	date
UPV1.0.0	Yi Han	C2EU application program update, ADB introduction, OCPP backend related configuration, local white list	19.07.2019
UPV1.0.0	Liweilan Ma	Double check contents	22.07.2019

Content

1. ADB tool introduction

ADB tool is used to conduct the application software update. One Micro USB cable is needed to connect laptop with C2EU.

Figure 1.1 Micro USB cable

LAN cable connection

Through Micro USB connected to laptop

SIM card slot

USB port for the wired mouse
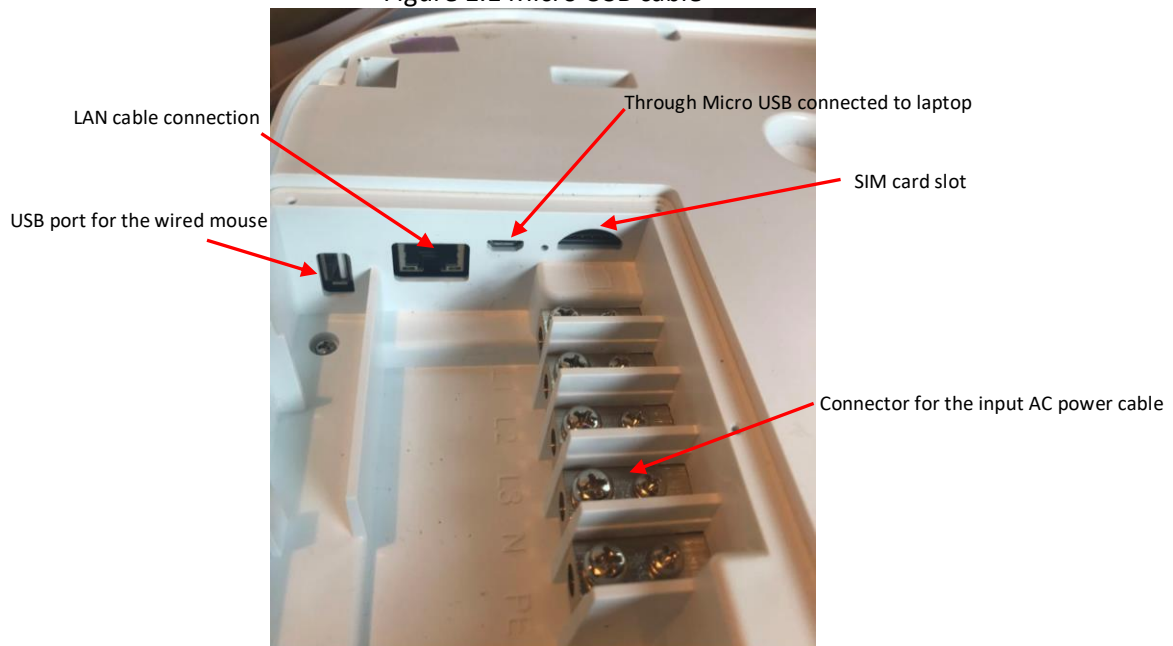
Connector for the input AC power cable

Figure 1.2 A8 board

After the connection with laptop, you can open the ADB tool in laptop. You can use this ADB tool in Windows systems. Uncompressing and open the file, operate adb.exe and then open 1.bat.

1.bat	2018/7/23 9:33	Windows 批处理	1 KB
adb.exe	2018/7/23 9:33	应用程序	986 KB
adb1.0.32.txt	2018/7/23 9:33	文本文档	0 KB
AdbWinApi.dll	2018/7/23 9:33	应用程序扩展	94 KB
AdbWinUsbApi.dll	2018/7/23 9:33	应用程序扩展	60 KB
fastboot.exe	2018/7/23 9:33	应用程序	192 KB
xclog.txt	2018/9/12 9:58	文本文档	1,704 KB
安装办法.txt	2018/7/23 9:33	文本文档	1 KB

Figure 1.3

Then you will see this window below:


```
C:\Users\admin\Desktop\adb>cmd
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation。保留所有权利。

C:\Users\admin\Desktop\adb>
```

Figure 1.4

Type in the command " *adb remount*" and press "enter":


```
C:\Users\admin\Desktop\adb>cmd
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation。保留所有权利。

C:\Users\admin\Desktop\adb>adb remount
remount failed: Success

C:\Users\admin\Desktop\adb>
```

Figure 1.5

Note:

If you want to restart the charger, please disconnect the micro USB cable from your computer. After you have disconnected, connect laptop with C2EU again and use the command **"adb remount"** to ensure the connection is working.

2. Application software update

If you wish to update your firmware, please follow these steps:

1) Press the home button for 5 seconds to assess the current firmware version, for
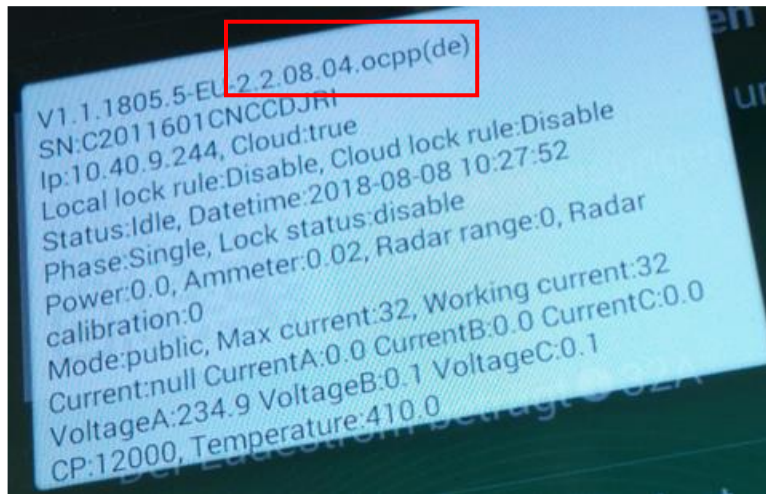
example here the current version is 2.2.08.04.ocpp(de).

Figure 2.1 Screenshot for the version displayed on C2EU

2) Then open the ADB tool like shown in 1. Part. After "**adb remount**" we can start to push the apk file through operating command " *adb push C:\Users\admin\Desktop\xcharger.apk /system/app*"

Note:

C:\Users\admin\Desktop\xcharger.apk is the local address of apk file in your computer that you received from XCharge, **/system/app** is the target address in C2EU for apk file, please do not change it for such updates. Here is just an example, be careful with the space in command.

Figure 2.2

3) If you see "xxxx KB/s (xxxxxxx bytes in xxxxs)", it means that you have successfully pushed the apk file to C2EU.

4) After successful pushing, you can check the firmware version by pushing the home

button for 5 seconds and see whether the version has been updated.

3. Driver software update

When it's needed to upgrade the driver software in C2EU, please follow the steps below:

1) Receive the new version of driver software -update.zip and command- from XCharge.

2) Then open the ADB tool like shown in 1. Part. After **adb remount** execute command " **adb push C:\Users\admin\Desktop\command /cache/recovery/command**".
3) Execute command " **adb push C:\Users\admin\Desktop\update.zip /cache/recovery/update.zip**".
4) Execute command "**adb shell**".
5) Execute **"reboot recovery"** and then C2EU will restart automatically to finish the update.
Note:
C:\Users\admin\Desktop\........ is the local address of file in your computer that you received from XCharge, **/cache/recovery/......** is the target address in C2EU for corresponding file, please do not change its name for such updates. Here is just an example, be careful of the space in command.

4. Connection with OCPP backend

4.1 Communication Protocol Settings

1) Connecting a wired mouse to the charging station.

2) Clicking with the left mouse button on the logo area in the upper part of the

screen to get to the configuration page.

3) Select "Protocol setting", select the desired protocol, e.g. OCPP, and fill out the

required information about URL, model and vendor. Click "save and reboot" to

save changes.

4.2 APN Settings

1) Turn on the C2EU to check the icon at the top of the screen. If this icon ![icon] appears, it means that there is no internet connection.

2) In the state of no internet connection, press the button at the bottom of the screen for 5 seconds, then a window will pop up. In the third line, the status of the current communication module is shown. A sim status value of "absent" indicates that the SIM card is not detected.

Check whether the SIM is inserted correctly. (The SIM card should be inserted with the chip side down)

3) Set up the APN configuration by:

a. Connecting a wired mouse to the charging station.

b. Clicking with the left mouse button on the logo area in the upper part of the screen to get to the configuration page.

c. Select "APN setting" and fill out the required information about carrier, mcc, mnc, apn, user and password. Click "Modify" to save changes.

4) Insert the SIM card and see whether the internet connection is successful.

4.3 Update of APN list file

If needed, you might upgrade the APN list of C2EU.

1) Please connect C2EU with laptop using a Micro USB cable and initialize the ADB tool;

2) Execute "*adb shell*";

3) Then *"cd /data/data/com.android.providers.telephony/databases";*

4) Execute "*ls";*

5) Execute "*rm telephony.db*" to delete the telephony.db file*;*

6) Execute "*rm telephony.db-journal*" to delete the telephony.db-journal file;

7) Execute "*ls*" again and check whether there are no files under the folder "databases";

8) Execute "*exit*";

9) Execute command "*adb push C:\Users\admin\Desktop\apns-conf.xml /system/etc* and enter;

(*C:\Users\admin\Desktop\apns-conf.xml* is the local path of apns-conf.xml file in the laptop, */system/etc* is the target address in C6EU. The file apns-conf.xml would be sent by XCharge)

10) After pushing, please restart the charger and then the new APN list will be available.

4.4 Update of the OCPP configuration file

1) Please connect C2EU with laptop using a Micro USB cable and initialize the ADB tool;

2) Receive the "ocpp_cfg.json" file from XCharge;

3) Execute *"adb push C:\Users\admin\Desktop\ocpp_cfg.json /data/data/com.xcharge.charger/files/ocpp_cfg.json"* to push the OCPP configuration file to the charger (*C:\Users\admin\Desktop\ ocpp_cfg.json* is the local path of ocpp_cfg.json file in laptop, */system/etc* is the target address in C2EU);

4) Restart the charging station to make the configuration to take effect.

5. Get log file

1) Please connect A8 board with laptop through Mini USB cable and then open the ADB tool.

2) Execute command "**adb pull /data/data/com.xcharge.charger/logs/charger_app.log C:\Users\admin\Deskop**" and press "enter".

Note:

/data/data/com.xcharge.charger/logs/charger_app.log is the address where the log file "charger_app.log" in C2EU is.

The file "charger_app.log" is the newest log written in the charger and is max. 512KB. If you need older logs, please try "charger_app.log.x", "x" is a number between 1 and 10 (for example "charger_app.log.10" is the oldest log in charger).

C:\Users\admin\Deskop is the local address in laptop where the log file will be stored. It can be selected by yourself and after the successful pulling you can find the log file on this address in laptop.

Please note that the phrases in green below are the comments for the command.

6. Local list for authentication

6.1 Search and edit Local whitelist

1) Connect the C2EU through Micro USB with your laptop. Open the ADB tool and execute **adb remount** and then **adb shell**;

2) Execute **sqlite3 /data/data/com.xcharge.charger/databases/content.db;**

3) Execute **.table**; ##search all the table in databank

4) Execute **select * from** table name; ##select the table you want, please replace the table name with the real name like below:

for example： **select * from tb_auth_info**;

5) Execute **insert into** table name(field name) values(values); ##insert data

for example： insert into tb_auth_info(_id,idTag,expiryDate,parenIdTag,status) values(1,'123','2018-10-24'T'14:40:40+01:00','456','Accepted');

Note: form of parameter "expiryDate": yyyy-MM-dd'T'HH:mm:ss+00:00

values of status: "Accepted", "Blocked", "Expired", "Invalid", "ConcurrentTx".

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"expiryDate" and "parenIdTag" can be empty.

6) Execute **update** *Table name* **set** *field name=new value* **where** *field name=old value*; ##data update

for example： update tb_auth_info set status='Invalid' where _id=1;

If you want to update more values for a single time (note: please use comma to separate different values):

for example： update tb_auth_info set parenIdTag='123',status='Invalid' where _id=1;

7) Execute **delete from** *table name* **where** *field name=value*; ##delete the data

for example： delete from tb_auth_info where _id=1;

other operations：

to show the field name: **.header on**

Note：

At the end of each command, add a semicolon (command separator).

6.2 Add the card to local whitelist

1) Connect C2EU through Micro USB with laptop. Open ADB tool and execute **adb remount**

2) Execute **adb shell sqlite3 /data/data/com.xcharge.charger/databases/content.db;**

3) Execute **select count(*) from tb_auth_info**; ##get the number of all data in table N

4) Execute **insert into tb_auth_info(_id,idTag,status) values(N+1,'card ID','Accepted')**; ##insert the card ID into N+1 line

6.3 Add the card to blacklist

1) Connect C2EU through Micro USB with laptop. Open ADB tool and execute **adb remount**

2) Execute **adb shell sqlite3 /data/data/com.xcharge.charger/databases/content.db;**

3) Execute **select count(*) from tb_auth_info**; ##get the number of all data in table N

4) Execute **insert into tb_auth_info(_id,idTag,status) values(N+1,'card ID','Invalid');** ##insert the card ID into N+1 line

5) Execute **update tb_auth_info set status='Invalid' where _id=N+1;** ##When die ID exists in datebank, just use the data update command to set it invalid