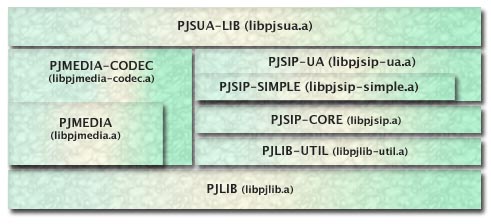
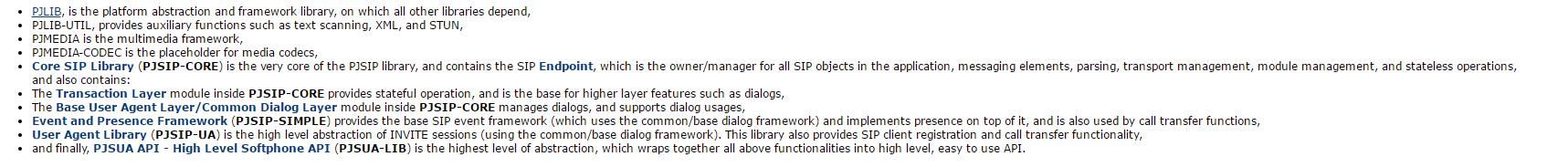
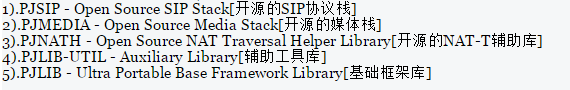
1. pjsip总统架构







2.对应语言接口产生

Pjsua-LIB是一个C语言的库。Pjsip做的最后一次封装Pjsua2-LIB(C++的库)。

产生不同平台

…接口

python接口

java接口

S

W

I

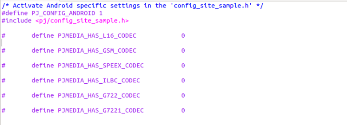
G

工具

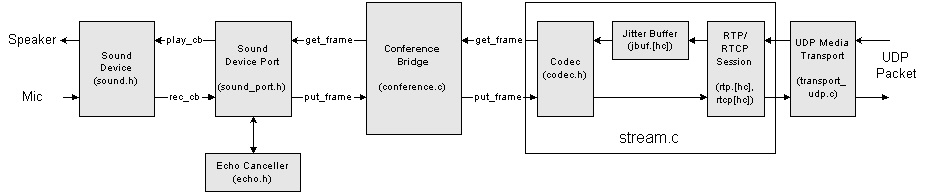
PJsua-LIB接口

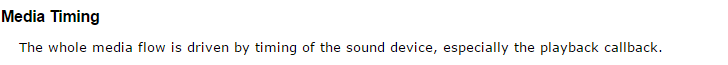
3.对应平台和一些选项设置编译

在config\_site.h文件中进行相应的配置。



4.pjmedia流程





5.从pjsua-lib接口看media的启动流程

Pjsua\_vid.c

Pjsua\_aud.c

Pjsua\_media.c

pjsua\_media\_subsys\_init() pjsua\_aud\_subsys\_init()

pjsua\_vid\_subsys\_init()

pjsua\_media\_channel\_update() …

6.sip驱动media

SDP negotiation has been completed pjsua\_call.c

pjsua\_media\_channel\_update pjsua\_media.c

pjsua\_aud\_channel\_update() pjsua\_vid\_channel\_update()

pjsua\_aud.c pjsua\_vid.c

7.pjsip的数据结构

全局数据结构

struct pjsua\_data

{

/\* Control: \*/

/\* Logging: \*/

/\* SIP: \*/

pjsip\_endpoint \*endpt; /\*\*< Global endpoint. \*/

pjsip\_module mod; /\*\*< pjsua's PJSIP module. \*/

pjsua\_transport\_data tpdata[8]; /\*\*< Array of transports. \*/

pjsip\_tp\_state\_callback old\_tp\_cb; /\*\*< Old transport callback. \*/

/\* Calls: \*/

pjsua\_config ua\_cfg; /\*\*< UA config. \*/

unsigned call\_cnt; /\*\*< Call counter. \*/

pjsua\_call calls[PJSUA\_MAX\_CALLS];/\*\*< Calls array. \*/

pjsua\_call\_id next\_call\_id; /\*\*< Next call id to use\*/

};

Media stream数据结构

struct pjsua\_call\_media

{

pjsua\_call \*call; /\*\*< Parent call. \*/

pjmedia\_type type; /\*\*< Media type. \*/

unsigned idx; /\*\*< This media index in parent call. \*/

pjsua\_call\_media\_status state; /\*\*< Media state. \*/

pjsua\_call\_media\_status prev\_state;/\*\*< Previous media state. \*/

pjmedia\_dir dir; /\*\*< Media direction. \*/

//added by chenli

/\*The WebRTC Channel\*/

struct {

/\*Audio Channel\*/

struct {

int channel\_id;/\*\*<webrtc channel of audio>\*/

} audio\_channel;

/\*Video Channel\*/

struct {

int channel\_id;/\*\*<webrtc channel of video>\*/

int capture\_id;/\*\*<webrtc capture id of video>\*/

} video\_channel;

} webrtc\_channel;

/\*\* The stream \*/

struct {

/\*\* Audio stream \*/

struct {

pjmedia\_stream \*stream; /\*\*< The audio stream. \*/

int conf\_slot; /\*\*< Slot # in conference bridge. \*/

} a;

/\*\* Video stream \*/

struct {

pjmedia\_vid\_stream \*stream; /\*\*< The video stream. \*/

pjsua\_vid\_win\_id cap\_win\_id;/\*\*< The video capture window \*/

pjsua\_vid\_win\_id rdr\_win\_id;/\*\*< The video render window \*/

pjmedia\_vid\_dev\_index cap\_dev; /\*\*< The video capture device \*/

pjmedia\_vid\_dev\_index rdr\_dev; /\*\*< The video-in render device \*/

} v;

} strm;

}