struct wpa_driver_nl80211_data
struct nl80211_global *global
struct dl_list list
struct dl_list wiphy_list
char phyname[32]
struct i802_bss *first_bss;
......

struct nl80211_global
dl_list interface
......

struct wpa_driver_nl80211_data
struct nl80211_global *global
struct dl_list list
struct dl_list wiphy_list
char phyname[32]
struct i802_bss *first_bss;
......

struct nl80211_global
dl_list interface
......

说明：dl_list_add(drv->global-interfaces,&drv->list);
这样以后可以通过wpa_global->drv_priv[i].interface
使用container 就可以获取struct wpa_driver_nl80211_data

struct i802_bss
struct wpa_driver_nl80211_data *drv
struct i802_bss *next
......

struct i802_bss
struct wpa_driver_nl80211_data *drv
struct i802_bss *next
......

struct nl80211_global[0]
struct nl80211_global[1]
......

void **drv_priv
struct dl_list p2p_srv_bonjour
struct dl_list p2p_srv_upnp
struct ctrl_iface_global_priv *ctrl_iface
struct wpa_params params
struct wpa_supplicant *ifaces
struct wpa_global

struct p2p_srv_bonjour
struct p2p_srv_upnp
struct ctrl_iface_global_priv
Sock wpa_cli 访问 socket_id

struct wpa_params

struct wpa_supplicant
struct wpa_global *global
struct wpa_supplicant *parent
struct wpa_supplicant *next
char ifname[100]
const struct wpa_driver_ops *driver
struct wpa_sm *wpa
struct eapol_sm *eapol
struct ctrl_iface_priv *ctrl_iface
enum wpa_states wpa_state
void *drv_priv
......

指向自己

struct wpa_supplicant
struct wpa_global *global
struct wpa_supplicant *parent
struct wpa_supplicant *next
......

指向自己

struct wpa_supplicant
......

指下个wpa_s

指下个wpa_s

struct wpa_sm
u8 pmk[PMK_LEN]
struct eapol_sm *eapol
struct wpa_sm_ctx *ctx
......

struct wpa_sm_ctx
Void *ctx
......

struct eapol_sm
struct eap_sm *eap
struct eapol_ctx *ctx
......

struct eapol_ctx
Void *ctx
......

struct wpa_ssid

ctrl_iface.c wpa_supplicant.c eve.c ap

选择BSS

SELECT_NETWORK

监听wpa_cli命令的处理程序：
wpa_supplicant_ctrl_iface_process

wpa_supplicant_ctrl_iface_select_network

wpa_config_get_network
获取配置ssid结构体 config.c

wpa_supplicant_select_network

wpa_supplicant_select_network
wpa_supplicant_deauthenticate
去掉先前的ap认证

认证
authenticate

wpa_supplicant_fast_associate
执行是否成功

os_reltime_expired
超时判断 默认5s 如果是在最新的一次扫描5s之后发生了，
就被认为是旧的扫描结果
否则就认为可以选取上次的扫描结果，也就是5s的时效性

否
需要重新扫描

5s内

是
不需要重新扫描使用上次的扫描结果

wpas_select_network_from_last_scan

wpa_supplicant_pick_network

wpas_scan_reset_sched_scan
重置扫描调度器

wpa_supplicant_select_bss

wpa_scan_res_match

wpa_supplicant_req_scan
请求扫描

wpa_supplicant_connect

wpas_notify_network_selected

wpa_supplicant_associate

关联
Associate

driver

wpas_start_assoc_cb

radio_add_work(wpas_start_assoc_cb)

wpa_drv_associate
发送nl消息到驱动

wpa_driver_nl80211_associate

wpa_driver_nl80211_connect
组合好的帧发送到驱动中

空口无线关联帧 Association Request

空口无线关联帧 Association Response

do_process_drv_event
case NL80211_CMD_CONNECT或者NL80211_CMD_ROAM

L2_PACKET

mlme_event_connect

wpa_supplicant_rx_eapol

wpa_sm_rx_eapol

判断加密
方式

wpa_psk

wpa_supplicant_send_1_of_4()

握手

wpa_supplicant_send_2_of_4()

wpa_supplicant_send_3_of_4()

wpa_supplicant_send_4_of_4()

WPA_GROUP_HANDSHAKE

ctrl_iface.c   wpa_supplicant.c   eve.c   **ap**

SELECT_NETWORK

监听wpa_cli 命令的处理程序：
wpa_supplicant_ctrl_iface_process
wpa_supplicant_ctrl_iface_select_network
wpa_config_get_network
获取配置ssid结构体   config.c

wpa_supplicant_select_network

wpa_supplicant_select_network
wpa_supplicant_deauthenticate
去掉先前的ap认证   wpa_supplicant_fast_associate os_reltime_expired
执行是否成功   超时判断 默认5s 如果是在最新的一次扫描5s之后发生，
就被认为是旧的扫描结果
否   否则就认为可以选取上次的扫描结果，也就是5s的时效性
需要重新扫描
5s内

是
不需要重新扫描使用上次的扫描结果

wpas_scan_reset_sched_scan   **wpas_select_network_from_last_scan**
重置扫描调度器   **wpa_supplicant_pick_network**
wpa_supplicant_req_scan   **wpa_supplicant_select_bss**
请求扫描   **wpa_scan_res_match**

wpas_notify_network_selected   **wpa_supplicant_connect**

wpa_supplicant_associate

wpas_start_assoc_cb   **radio_add_work(wpas_start_assoc_cb)**

driver

wpa_drv_associate
发送nl消息到驱动

wpa_driver_nl80211_associate

wpa_driver_nl80211_connect
组合好的帧发送到驱动中

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case NL80211_CMD_CONNECT或者NL80211_CMD_ROAM   **L2_PACKET**

mlme_event_connect

wpa_supplicant_rx_eapol

wpa_sm_rx_eapol   判断加密
方式

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wpa_supplicant_send_1_of_4()
wpa_supplicant_send_2_of_4()
wpa_supplicant_send_3_of_4()
wpa_supplicant_send_4_of_4()

WPA_GROUP_HANDSHAKE