

# 1，931：Data link layer establish

Q921收到sabme建链后，发送LD\_EST\_IND\_MESSAGE给Q931，Q931转换为DL\_ESTABLISH\_INDICATION消息

Code flow：

isdnl3\_process\_msg:

|--》process\_l2\_msg:

| |--》handle\_dl\_mgmt\_mesg:

| | |--》DL\_ESTABLISH\_INDICATION && DL\_ESTABLISH\_CONFIRM：

| | |--》p\_controller->dlci\_info[dlci\_val].restart\_state = REST0;

| | |--》find\_llci\_from\_dlci\_un10：

| | | |--》(\*(\*p\_controller->p\_fsm\_table)[tree\_node\_state][event\_id])(pbuffer,root, event\_id, p\_cstr\_buf, perror)

各个状态的分别处理：

UN2：isdnl3\_etsin02\_25\_dl\_est\_ind

|--》stop\_all\_timer\_call

|--》send\_ind\_to\_cc (llci\_val, L3\_DISC\_IND, p\_cstr\_buf, perror)——CC处理disc ind见标题3

|--》send\_disc\_to\_l2 (llci\_val, cause\_val, perror)————这里cause\_val为41

|--》start\_timer\_call (llci\_val, T305, perror)

|--》g\_info.p\_call\_info\_table[llci\_val].current\_state = UN12 ;

UN10：isdnl3\_etsinxx\_unexprec

|--》send\_status\_to\_l2 (llci\_val,cause\_val,perror)

|--》Or

|--》send\_status\_enq\_to\_l2 (llci\_val,perror)

|--》start\_timer\_call (llci\_val, T322, perror)

UN25：isdnl3\_etsin25W\_dl\_est\_ind

|--》isdnl3\_etsin02\_25\_dl\_est\_ind

|--》Or

|--》isdnl3\_cmb25I\_dl\_est\_ind

|--》stop\_timer\_call (T304,llci\_val,perror)

| |--》(\*(\*p\_controller->p\_fsm\_table)[global\_llci\_state][INT\_RELEASE\_IND]) (pbuffer, global\_llci, INT\_RELEASE\_IND, p\_cstr\_buf, perror)

| |--》send\_msg\_l3\_l2 (pbuffer, llci\_val, perror)

| |--》start\_timer\_call (llci\_val, T308, perror)

| |--》 g\_info.p\_call\_info\_table[llci\_val].current\_state = UN19 ;

其他UN：无处理

# 2，931：data link layer release

Q921发送LD\_RLS\_I\_MESSAGE到Q931，Q931转换为DL\_RELEASE\_INDICATION消息

Code flow：

isdnl3\_process\_msg:

|--》process\_l2\_msg:

| |--》handle\_dl\_mgmt\_mesg:

| | |--》DL\_RELEASE\_INDICATION

| | |--》p\_controller->dlci\_info[dlci\_val].restart\_state = DATA\_LINK\_DOWN ;

| | |--》find\_llci\_from\_dlci\_un10：

| | | |--》(\*(\*p\_controller->p\_fsm\_table)[tree\_node\_state][event\_id])(pbuffer,root, event\_id, p\_cstr\_buf, perror)

各个状态的分别处理：

UN1 & UN2 & UN3 & UN4 & UN6 & UN11 & UN12 & UN15 & UN17 & UN22 & UN31：isdnl3\_etsinxx\_dl\_rel\_ind

|--》stop\_all\_timer\_call(llci\_val,perror)

|--》send\_ind\_to\_cc (llci\_val, L3\_REL\_IND, p\_cstr\_buf, perror) ——CC处理rel ind见标题4

|--》free\_call\_info (llci\_val, perror)

| |--》g\_info.p\_call\_info\_table[index].current\_state = UN0;

UN7 & UN8 & UN9 & UN19 & UN25：

isdnl3\_etsinxxW\_dl\_rel\_ind

|--》isdnl3\_etsinxx\_dl\_rel\_ind

|--》Or

|--》isdnl3\_cmbxxI\_dl\_rel\_ind

| |--》(\*(\*p\_controller->p\_fsm\_table)[global\_llci\_state][INT\_RELEASE\_IND]) (pbuffer, global\_llci, INT\_RELEASE\_IND, p\_cstr\_buf, perror)

| |--》free\_call\_info (llci\_val, perror)

| | |--》g\_info.p\_call\_info\_table[index].current\_state = UN0;

UN10：isdnl3\_etsin10\_dl\_rel\_ind

|--》start\_timer\_call (llci\_val, T309, perror)

|--》send\_dl\_est\_req\_to\_l2 (llci\_val, perror)

T309未超时，建链成功：

Q921建链成功后发送LD\_EST\_CONF\_MESSAGE给Q931，Q931转换后为DL\_ESTABLISH\_CONFIRM消息，UN10状态下该消息对应如下处理：

isdnl3\_etsin10\_dl\_est\_confirm：

|--》stop\_timer\_call (T309,llci\_val,perror)

|--》send\_status\_to\_l2 (llci\_val,cause\_val,perror)

T309超时，建链未回复消息

isdnl3\_etsin10\_t309\_to

|--》clear\_timer\_call (llci\_val,T309)

|--》send\_tmout\_to\_cc (p\_cstr\_buf,L3\_REL\_IND,llci\_val, g\_info.p\_call\_info\_table[llci\_val].controller\_no, g\_info.p\_call\_info\_table[llci\_val].dlci,perror)

——CC处理time out的L3\_REL\_IND见标题4

|--》isdnl3\_send\_data(CALL\_INFO,llci\_val,ISDN\_NULL,perror)

|--》free\_call\_info (llci\_val, perror)

| |--》g\_info.p\_call\_info\_table[index].current\_state = UN0;

# 3，CC：L3\_DISC\_IND

CC经Iwu\_fn\_CcConvertMsgIdToEvent方法将L3\_DISC\_IND转换为Iwu\_en\_L3DisconnectIndication消息，调用状态机处理消息：

iwu\_fn\_CcProcessMsg：

|--》(\*iwu\_glb\_callStateHandlerArray[pCallContext->currentCallState])(pCallContext->dCallId, g\_pCallData, ccCallEvent,pErrorCode)

| |--》iwu\_fn\_ccOverlapSending

| | |--》pCallContext->subStateFlag |= IwuCcsubStateFlag\_ReleaseToBeSent;

…

iwu\_fn\_processClearCallResp

|--》retVal = Iwu\_fn\_sendReleaseReqMsgToL3(pCallContext);

|--》 pCallContext->currentCallState = CcCallState\_RELEASE\_REQUEST;

Q931收到release消息，发送release ind给CC：

iwu\_fn\_ccReleaseRequest

|--》retVal = iwu\_fn\_ReleaseResource(pCallContext, pErr);

| |--》

# 4，CC：L3\_REL\_IND

CC经Iwu\_fn\_CcConvertMsgIdToEvent方法将L3\_REL\_IND转换为Iwu\_en\_L3ReleaseIndication消息，调用状态机处理消息：

(\*iwu\_glb\_callStateHandlerArray[pCallContext->currentCallState])(pCallContext->dCallId, g\_pCallData, ccCallEvent,pErrorCode)

CC各状态下处理release ind：

iwu\_fn\_ccOverlapSending等状态处理方法：

|--》case Iwu\_en\_L3ReleaseIndication

|--》retVal = iwu\_fn\_handleRemoteTerminateReq(pCallContext, pCallData, pErr);

| |--》retVal = iwu\_fn\_sendTermCallReq(pCallContext, pCallData, pErrorCode);

| | |--》pTerminateCallRqst->response\_code = cause->cause\_val;

| | |--》iwu\_internal\_msg\_mgr::getInstance()->post\_internal\_message(…)